

PGA Sports Academy Player Level



PGA Sports Academy

Purpose/Mission:

The PGA Sports Academy program is a collaborative framework based on research and best practices from PGA Professionals, PGA Education, allied associations and the Long Term Athlete Development (LTAD) standards for juniors adopted by the PGA World Alliance. The PGA Sports Academy's focus is to develop core golfers and provide them with pathways to continue to play golf socially or competitively based on each individual's desire.

It is imperative that every parent/participant understands the process of LTAD in the PGA Sports Academy program so that they have a clear understanding of what the PGA Professional is trying to accomplish with each participant. PGA Professionals are strongly encouraged to distribute a copy of The PGA Sports Academy Parent Resource to parents before their child begins the PGA Sports Academy to help outline the curriculum and expectations for the program.

Fun – First And Foremost

Fun – First and Foremost is our junior golf mantra. We must make sure new golfers are engaged and have a fun, interactive experience. To educate and get juniors involved in golf is the goal, but keeping it *fun* is the primary focus. It's crucial that instructors enjoy the experience—juniors will sense your love of the sport and hopefully become smitten for a lifetime.

PGA Sports Academy Curriculum Overview:

The PGA Sports Academy will help youth learn to play golf and have fun in the process. The PGA Sports Academy has three levels: Player, Sport and Champion.

Player Level Objectives

- Develop an understanding of the sport of golf;
- Learn fundamental movement and motor skills and link them together into the golf swing;
- Use ball-striking games such as baseball and hockey to develop hand-eye coordination;
- Establish essential safety and etiquette.

Sport Level Objectives

- Develop fundamental golf movement skills and teach overall sports skills;
- Learn scoring, the rules of golf and the process of playing a round of golf;
- Establish target and alignment fundamentals and begin developing proper short-game skills.

Champion Level Objectives

- Establish a knowledge base in the mental side of the sport;
- Develop full swing, short game and putting skills to higher level;
- Incorporate strength, stability and flexibility to improve performance and health;
- Enhance performance by learning course management skills, STAT tracking, keeping a golf journal and advancing to national competitions.

Each level includes five focus areas that will help juniors learn, develop and practice the skills to become better golfers and enjoy the sport of golf:

- Fitness and Nutrition;
- Golf Skills;
- Sportsmanship, Etiquette and Rules;
- Golf and “Near Golf” Experiences;
- Golf and Skills Challenges.

Each level will develop the necessary physical and golf skills to practice, improve and enjoy the sport. Juniors will be tested before they begin each level to determine their level of experience. At the end of each level, each participant will be tested again and will receive a score based on his or her skill level. The PGA Sports Academy will give each participant a practice program to improve their skills and set goals to help become a better golfer.

Delivery

The PGA Sports Academy is designed to enhance PGA Professionals’ existing junior golf programs as well as provide a turn-key solution for professionals who wish to adopt the program in its entirety. The PGA Sports Academy is designed to be delivered at “green grass” facilities, but it can easily be adapted for in-school and after-school programs to help transition youth to PGA facilities. The curriculum is structured to be multi-dimensional with generous flexibility in terms of teaching methodology from PGA Professionals.

Knowledge of Game

Player Level Overview

Children in the Player level will benefit most by instruction and instructional settings that focus on fun and games while minimizing the more traditional instruction setting. The goal is to allow for play and exploration of golf through self-discovery and experimentation. In fact, this level is often referred to as “The Play and Exploration Years.” As a result, these thoughts should always be considered when designing the content and program schedule. By creating this environment, the instructor will be building the ideal learning environment for the junior golfer at this stage of their development. Following are some suggestions for creating this program; adaptation to suit the particular student and facility are encouraged.

Player Level Instructional Focus

Instruction at this level begins with teaching the junior golfer to achieve a square clubface at impact; traditional pre-swing concepts of grip, posture and alignment are key parts of the process. However, traditional in-swing concerns are given only cursory attention as the goal is to encourage the development of the “building blocks” of golf. This strategy does not limit the incorporation of swing thoughts designed to change specific areas of the in-swing motion such as dynamic balance, coil, arc or other PGA Principals. Players at this level, however, are limited in their ability to create motion and comprehend multiple technique changes. Drills and training aids are excellent means to address changes in swing shape at this level. Positive feedback from instructor to student in the areas of grip, posture and alignment is extremely helpful at this level. Keep it light and fun with jovial banter and give-and-take. A serious “professional-like setting” as you would see with older players is unlikely to achieve results with the very young golfer. It is recommended that the instructor utilize video analysis for his or her teaching and documentation needs rather than to show a Player Level student swing issues.

Full Swing - Player Level Instructional Points

Grip

Since the grip is the student’s only connection with the club, it is important that they appreciate the impact it will have on their overall swing potential. Unfortunately, the age and attention span of this level will more than likely not allow for a true appreciation of the importance of the grip. Keeping that point in mind, the instructor should attempt, through positive feedback, to reinforce a grip that the instructor feels most adequately fits the student’s needs.

The first key point in developing a sound grip is to teach the junior golfer that the palms should face each other with the back of the left and the palm of the right facing the target (for a right-handed golfer, of course).

Three steps can help the student ensure a correct grip:

1. Have the student hold the club at a 45-degree angle with the right hand.
2. Have the student position his/her left hand on the grip as if shaking hands.
3. Have the student slide his/her right hand towards the left, covering the left thumb.

3 pictures to illustrate procedure

Stance and Posture

Correct stance and posture require that the student's feet be positioned shoulder width and the body weight evenly distributed or slightly favoring the right side. The student's arms should be relaxed and hang directly below the shoulders. There should be a straight line running from the hips to the shoulders. The butt end of the club should point between the left hip and zipper. This address should be combined with a ball position that is center of the stance with irons, slightly forward of center for hybrids and fairway woods and even with the left heel for drivers. Correct stance and posture will allow the student the best opportunity to effectively swing the club as well as move his/her body while maintaining stability with the lower body.

Proper stance and posture are achieved in three steps:

1. The student stands tall with the feet positioned shoulder width.
2. The student adds a slight amount of knee flex.
3. The student leans forward from the hips to reach the ball.

3 pictures to illustrate procedure

Alignment

Neutral or square alignment has the clubface aiming directly at the target and the feet, hips and shoulders parallel left of the target line. This combination of target line and body line often is compared to a railroad track with the outer rail the clubface line and the inner rail the body line.

Neutral or square alignment is achieved by the following three steps:

1. The student positions the clubhead behind the ball with the clubface square to the target or an intermediate target.
2. The student positions the feet, hips and shoulders parallel to the target line.
3. The student adjusts their feet as necessary to establish parallel lines.

3 pictures to illustrate procedure

Proper alignment combined with correct grip, stance and posture are important in helping the junior establish a correct swing shape. Though these pre-shot steps take minimal time to achieve, junior golfers very often view them as unimportant and lack the discipline to regularly repeat the steps. Unfortunately, without these steps, consistent development and improvement are difficult.

Short Game - Player Level Instructional Points

PGA Professionals and experienced junior golfers understand quite well the importance of short-game proficiency to producing lower scores. But it can be a tough sell to younger players interested in wailing away with the full swing. Instructors are encouraged to continue the "having fun" theme into their short-game sessions, focusing on the pre-swing issues of set-up and alignment and allowing the student to explore and experiment with the various short-game situational shots. When appropriate, the following information can be highlighted to explain the differences between various short-game shots.

Chipping/Pitching Definitions

Chipping is defined as a shot that covers more distance on the ground than in the air. The shot has maximum roll with minimum air time. Often beginning golfers take quickly to the concept of chipping as the slow speed of the swing and short distance the ball travels make it a relatively safe shot and one easier to execute than other shots.

Pitching is defined as a shot that covers more distance in the air than on the ground. The shot has maximum height with minimum roll. Though pitching is a more difficult shot, it is often the only option when trying to get the ball on the green and close to the hole.

In both cases, the height the ball reaches is determined by the set-up, loft of the clubface and speed of the swing. The distance that the ball travels in the air is the result of the length of the swing.

Chipping

A proper chip shot set-up for the junior can be achieved by the following four steps:

1. The student utilizes the same grip as the full swing, with the hands positioned lower on the grip.
2. The junior narrows his/her stance to a point where the heels are positioned less than shoulder width.
3. The student positions the ball back of center of the stance, with the butt end of the club in front of the ball.
4. The student leans his/her weight slightly to the left (or the foot closer to the target).

Pitching

A proper pitch shot set-up can be achieved by the following four steps:

1. The student utilizes the same grip as their full swing, with the hands positioned lower on the grip.
2. The junior narrows his/her stance to a point where the heels are positioned less than shoulder width.
3. The student positions the ball in the center of the stance, with the butt end of the club even with the ball.
4. The student balances his/her weight evenly between the right and left sides.

Bunker Play Definitions

Though it does not require any change in the mechanics, a greenside bunker shot situation does require a slight change in the fundamentals. This shot is difficult for most juniors because of the inconsistency of sand and the limited access for practice. The first goal should be to get the ball out of the bunker, onto the putting surface.

Bunker Play

A proper bunker shot set-up can be achieved by the following four steps:

1. The student utilizes the same grip and alignment as the full swing.
2. The junior's stance should be shoulder width with the feet dug into the sand.
3. The ball should be positioned slightly forward of center in the stance, with the butt end of the club pointing to the center of the body.
4. The junior's weight should be balanced equally between the right and left sides.

The Hole is the Goal!

“The Hole is the Goal” is a fun way to introduce beginning juniors to golf. Learning to putt will give juniors an idea of how and why we play the sport of golf. Juniors of any skill level can

perform a putting stroke. “The Hole is the Goal” makes playing and learning golf easy and fun. The goal has a double meaning. It represents where they should aim their shot (like a hockey goal) but also in general as to what the goal of the exercise should be. The only goal that should be set at this level is to have the youngster become enamored with the game through a series of fun and interesting experiences.

There are many putting games that young children can play that will help them learn the goal of the game and how it is played. This exercise can also be fun for PGA Professionals. For example:

- Begin by walking with your young golfers across the putting green, teaching them how to feel the firmness and elevation changes and furthering the process by rolling balls across the green and developing a sense of speed;
- Putting to stationary and moving targets indoors (putting to moving targets helps kids develop visual and timing skills);
- Putting with a partner and having each player aim for each other’s putters;
- Building a miniature indoor putting course out of unbreakable household items;
- And putting on a real golf green with family and friends.

Putting Definition

Putting is a unique shot in golf because it requires the ball to roll. No height is needed; in fact, the better the roll of the ball, the more successful the putter. For the junior golfer, putting is crucial. The junior might think of putting as an equalizer that can make up for errant shots.

Putting Grip

There are two grips: the reverse overlap and the ten-finger grip. The most important feature of the grip is the position of the student’s hands in relation to the shaft. Both hands should have the grip positioned in the palms. Individual preferences can position the thumbs pointing down the top or side of the shaft. The back of the left hand and palm of the right hand should remain square to the target line.

Putting Stance and Posture

Correct stance and posture will have the golfer’s feet positioned shoulder width with the body weight evenly distributed or slightly favoring the left side. The arms should be relaxed and extended naturally below the shoulders. Because of the closeness to the ball and the length of the putter, the student will be forced to curve his/her back slightly. Positioning their body comfortably to the ball is the main objective. The ball position should be slightly forward of center in the stance.

Putting Alignment

Correct alignment has the clubface looking directly at the target. The feet, hips and shoulders can be positioned parallel left or slightly opened or closed to the target line.

Obviously, the fundamentals in putting are not as stringent as those of the full swing. This more relaxed view is due to the fact that the junior’s body is inactive and stable in a proper putting

stroke, leaving the student and instructor open to try different postures and alignments as long as the mechanics of the stroke remain intact.

In keeping with the *Fun – First and Foremost* mindset, teaching precise putting technique is not as important as creating an environment that allows juniors to have fun. The putting stroke is easy to learn and should be taught to young children in the simplest terms. The power for the stroke should come from the shoulders. Rocking the shoulders back and forth or up and down will place the hands in a position to sense and gain feedback to be used for future shots. For example, when the shoulders create power, the hands can then sense the weight of the putter, the length of the stroke and the club head speed at impact. Because the hands have such an important role in putting, how a junior grips the club is very important. Be cognizant of how your students' hands are working to determine if their natural grip allows their hands to work together. Repetition of this process through some sort of game will help in measuring the amount of power it takes to putt a ball a certain distance. Through this technique, children will be able to use and apply knowledge they have gained to judge future putts. This process will help them experience a reasonable amount of success and achievement, which establishes a great mental and emotional precedent that will act as a solid foundation to build future fun experiences.

Player Level Drills and Drills with Aids

Drills and training aids can be immensely helpful in the development of a student's overall swing shape. They allow the instructor to shape specific components of the junior's swing while eliminating the need for specific technical swing thought discussions. One of the keys to self-diagnosis in golf is for the student to have an understanding of the ball flight and how it relates to one's individual swing. Though it would be unrealistic to expect a Player Level junior to grasp the various ingredients and complexities of a swing at this stage, it would certainly be helpful in the future to the developing Sport and Champion Level golfers. In some cases, these drills and drills with aids will be familiar. A benefit to the instructor is that these examples will not only help to improve the overall motion of the swing but also help the junior to develop the feel of the swing. The following drills and drills with aids are but a small sample of the many that can be utilized. These examples have been chosen due to their influence on the student's clubface, which is the primary focus of the Player Level. (To simplify matters, the drills are written for the right-handed golfer.)

This three-step process is effective when practicing a drill or drill with aid:

1. The student makes a practice swing to an imaginary ball focusing on what the drill is guiding him or her to do;
2. The student hits the ball, focusing on what the drill is guiding him or her to do;
3. The student hits a ball without the drill, attempting to create the same feel of the swing as in Steps 1 and 2.

These steps should be repeated until the swing and shot outcome in Step 3 are as proficient as in Step 2. At this point, Step 2 can be omitted, leaving only Steps 1 and 3 to practice. Finally, prior

to assigning the student a drill, the instructor should take the time to personally practice and test the drill. This process will not only give the instructor an understanding of the drill's purpose, its strengths and weaknesses, but this process will also make the instructor familiar with any safety issues involved.

Drills to Influence Face

Toe-In Drill / Heel-In Drill

The "Toe-In Drill" begins with the student addressing an imaginary ball with correct posture and an eight-iron. After swinging the club to waist height in the backswing, the student swings back to an imaginary ball where the toe of the club is ahead of the heel. This exaggerated closed clubface position helps the student develop the feel of the amount of arm rotation necessary through impact to square the clubface at impact. After rehearsing the motion, the student attempts to hit the ball recreating the same feel through impact. To complete the sequence, the student then attempts to create the same impact position while making a full backswing and follow-through. After creating the desired ball flight, the student attempts the fuller motion swings with longer clubs while maintaining the shorter motion swings with the eight-iron.

The "Heel-In Drill" begins with the student addressing an imaginary ball with correct posture and an eight-iron. After swinging the club to waist height in the backswing, the student swings back to an imaginary ball where the heel of the club is ahead of the toe. This exaggerated open clubface position helps the student develop the feel of the amount of arm rotation necessary through impact to square the clubface at impact. After rehearsing the motion, the student attempts to hit the ball, recreating the same feel through impact. To complete the sequence, the student then attempts to create the same impact position while making a full backswing and follow through. After creating the desired ball flight, the student attempts the fuller motion swings with longer clubs while maintaining the shorter motion swings with the eight-iron.

Two Piece Backswing Drill

The "Two Piece Backswing Drill" begins with a teed ball and a six-iron. After addressing the ball with correct posture, the student swings the club back to waist height in the backswing and pauses. At this point, the student notes the position of the club. The toe of the club should be pointing up or slightly favoring the ball side of the shaft, and the shaft should be parallel to the student's toe line. If this is not the case, the student makes the corrective adjustment and then continues to swing back to a full backswing and hit the ball. Initially, the motion will be somewhat awkward for the student due to the pausing of the swing, but he or she will soon be able to replace this awkwardness with a more fluid motion. The objective of this drill is to help the student create a visual awareness and feel of the correct starting direction of the backswing as well as greater control of the clubface throughout the motion.

Hold The Finish Drill

The "Hold the Finish Drill" begins with a higher lofted club such as a seven- or eight-iron. After addressing the ball with correct posture, the student makes a three-quarter length backswing and hits the ball, stopping the club at waist height in the follow through. At this point, the shaft should be parallel to the target line, the arms fully extended and the toe of the club pointing up. If the student typically has an open clubface at impact, this paused position at waist height in the

follow through should be adjusted so that the toe of the club is favoring the left side of the shaft. If the golfer struggles with a closed clubface at impact, the toe of the club at this post impact position should favor the ball side of the shaft. Once the student is comfortable with the motion, length and speed can gradually be added to the backswing with a continued focus on the student hitting that post-impact position described. This drill will help the student develop a greater awareness of the clubface at impact and post-impact position as well as a better feel of his or her arm motion through impact.

Drill with an Aid to Influence Face

Hit the Impact Bag

The “Hit the Impact Bag Drill” begins with the golfer addressing an impact bag with a traditional grip and posture and a mid-iron. From this position, the student swings the club back to waist height and then back to impact with the bag. At this point, the student should have an opposite clubface position to his/her traditional ball flight. If, for example, the student struggles with hitting slices, the impact position at this point should have the clubface closed. Initial swings are made with a seven-iron and should be relatively short and slow while the student develops the feel of the compensative motion. Once the student is able to reproduce the desired clubface position while impacting the bag, a ball should be positioned between the clubface and the bag with the student attempting to reproduce the desired clubface position at impact. Once the feel of compression is established and the student is able to achieve the desired clubface position at impact against the bag, the student attempts to hit a teed ball recreating the motion. Initially, it is suggested that the drill be attempted with a six-iron with longer clubs introduced once the student is able to control the clubface position at impact. This drill will help the student not only influence clubface position at impact but also help him or her develop an individual feel of proper impact.

Curve the Ball Drill

The “Curve the Ball Drill” begins with the golfer positioning a shaft on the ground to represent the target line and an additional shaft positioned vertically into the ground approximately nine feet in front of the golfer. Depending on the curve tendency of the golfer, this shaft could be positioned slightly to the inside of the target line for students who tend to slice the ball or to the outside of the target line for students who struggle with a hook. Starting with slow swings, the student hits the teed ball with an six-iron attempting to start the ball down the target line and curve the ball around the vertical shaft to the left to overcome a slice or to the right to compensate for the hook. If the ball does not curve enough, the student attempts to exaggerate the closed or open clubface being produced at impact until the ball curves the appropriate amount. Initial swings should be shorter and slower than normal and increase in length and speed as the student is able to shape the shot the desired amount. As confidence and control are gained, the student introduces longer clubs and attempts the drill with the ball off the ground. This drill will help the student develop the feel of how they can influence their clubface position at impact.

Swingyde Drill

The “Swingyde Drill” begins with the golfer positioning the Swingyde training aid on the club and addressing a teed ball with a seven-iron. Utilizing a slightly slower backswing pace than normal, the student attempts to position the Swingyde so that it rests against his or her left

forearm when the shaft is shoulder height in the backswing as well as at shoulder height in the follow through. Once the student is able to make the correct motion as prescribed by the aid, he or she attempts to hit the ball. To avoid the time and effort required to take the aid off or to put it on, the student switches to a six-iron when attempting to hit the ball without the aid. Eventually, the student alternates to other longer clubs such as a hybrid, fairway wood and driver while alternating swings with the training. This drill will help the student influence the clubface position at impact but also help the student develop a feel for the correct motion of the arms and body through impact.

Player Teaching Philosophy

At this introductory level, the best way to assess progress with your students is to observe their enjoyment level. How much fun are they having? The amount of fun they experience has a direct relationship to them choosing golf as a primary activity in their lives. The PGA Professional should observe when to teach and when to let the student explore and discover other methods or try to figure things out for themselves. The best way to stimulate a young mind is to ask questions and allow them to ask you questions about what you are teaching them. This interactive approach is called Socratic Method of teaching and learning. This may sound counter intuitive because our role as the PGA Instructor is to teach and educate the student, but by letting the student respond to your questions you will be able to assess how much of the lesson they have retained and help you gauge the progress that the student has made. Allowing the student to experiment between periods of instruction will promote the discovery process and help you build a better more inquisitive student.

Near Golf Experiences

Putting Course

Create your own putting course on the putting green using golf tees and string. You can:

- Create an outline around a practice hole on the putting green by using string; secure it by wrapping the string around a tee and then pushing the tee into the green so that only the top of tee and string can be seen.
- Designate a par for each hole based on its difficulty and length.
- Make a tee box for each hole using tees.
- Putt from the tee box to the hole.
- Any putt that goes outside the strings is considered out-of-bounds; the player takes a one-stroke penalty and putts again from your previous spot.
- Try to shoot even par or better.

Hit, Kick, Throw and Putt

Youngsters enjoy this game that combines elements of baseball, soccer and golf into one exercise.

- Begin by setting a tee used in the baseball-like game of T-ball at the beginning of the hole; hit the “tee shot” by hitting a baseball with a bat toward the green.
- Replace the baseball in the fairway with a soccer ball and then kick it toward the green.
- Replace the soccer ball with a golf ball and now throw or toss the ball towards the green until it lands on the putting surface.

- Now putt the ball in normal golf fashion until it falls into the hole.
- Add up the hits, kicks, throws and putts each hole for your score.

Swings and Throws

- Each player may swing or throw the golf ball at any time;
- The maximum number of times that a golf ball can be thrown on each hole is twice;
- Add up your swings and throws each hole for your score.

Pitch, Pass and Putt

Pitch, Pass and Putt is a fun Near Golf Experience game that relates to other sporting skills challenges and also helps transition the throwing motion to the chipping motion.

- This game starts off the green. The junior will have the option to pitch or pass the ball, depending on their preference.
- During this nine-hole competition, they will have five passes available to use.
- Once the ball is on the green, the junior will then putt to finish the hole.
- Add up your swings, putts and passes each hole for your score.

Glow Ball

Glow ball or night golf is a great way to have fun and not worry about taking up extra tee times at your golf course. You can utilize most any format and include the entire family! There is an art to setting up a glow ball course. It is suggested that you use the forward tees and light all hazards.

Hybrid Golf

Hybrid golf is a general way of explaining any variation of using standard golf equipment.

- This game consists of playing 3 holes
- Have your junior golfers use a tennis racket or a baseball bat to “tee” off with
- During the play of each hole, they are allowed to throw the ball one time
- This game can be modified for the skill level of the junior golfer

Practice with Golf Professional

Practicing with your junior golfers can help them learn the correct swing motions by imitating you. Show them how you practice and prepare for each type of shot so they can understand better how the game of golf is played. It will also help establish you as the expert and leader.

Drawing and Creating a Golf Course

Drawing and creating a golf course appeals to child’s sense of creativity. This can be a great indoor activity, especially during inclement weather. Ask your junior golfers to get creative with their designs, such a golf course in big cities or in outer space.

Ping Pong

Ping-Pong helps promote hand-eye coordination. It is a great activity to utilize in down time or during inclement weather. It also gives the participants another sport to look forward to and be competitive with.

Golf Baseball

- Golf baseball is played in any open area using a tennis ball on a range mat propelled by a golf club.
- You can use range bags or plastic range baskets as bases.
- You can modify these rules and structure based on the skill level of your junior golfers.

Golf Video Games

If you can't beat them, join them. Golf video games are a great way to keep golf on your junior's minds. By playing video games they will get an understanding of how to create different ball flights and shots around the course. This is another alternative during inclement weather.

Playing Golf on the PGA Family Course

Professionals can create a PGA Family Course that is short and beginner-friendly within your existing facility by using PGA Family tee markers or your own facility's tee markers. Use the suggested yardages listed below based on each individual's age and ability.

Sport Suggested PGA Family Course Yardage

1,100 maximum yards for nine holes

Par 3: 45-85 yards

Par 4: 85-135 yards

Par 5: 135-195 yards

Skills Challenges

Skill Challenges are meant to assess the progress of each junior in an interactive, interesting and challenging way. It's a good idea for the instructor to take part in the Skills Challenge, not only to monitor the progress of the students but also share in the friendly competition. The juniors also get a chance to learn the risk-reward consequences of their decisions. The Skills Challenge should be the most enjoyable feature of the PGA Sports Academy. During Skills Challenges, each junior is given bonus points if he hands in a correct scorecard. This process not only works on the junior's golf skills but also helps them practice their adding, subtracting and measuring skills.

Player Level

The Short Game Skills Challenge & Assessments

Rules of the game:

Each player will have 5 chances at putting, chipping and pitching. He may pick whatever distance he prefers under the rules of the game. If the shot is holed then the player receives a bonus of half the distance of the shot added to the full distance of the shot in feet. For example Kirk's first chip was 28 feet. He hit it 4ft from the hole. Kirk then subtracts 4 from 28 and received 22 points for that shot. The player may never pick the same distance twice. If the player completes a correct scorecard that player is awarded another 5 points to his overall total. Below is a scorecard example:

Five (5) Pitch shots – From 50 Ft. and under
Five (5) Chip shots – From 30 Ft. and under
Five (5) Putts No Longer than 2, 10, 16, 20, 30

Full Swing Skills Challenge & Self-Assessment

Rules of the game:

Each player will have 5 iron target shots. Depending on the length of shot he will be able to risk as many points as he is comfortable with. Set the green target up with 2 circles 50 yards away from the teeing area. The outer circle will be 30ft in diameter and the inner circle will be 15 feet in diameter. Set a second green target the same at 100 yards away. For every 10 yardages of the yard contested the player will have 1 yard to bid toward each yard. If the player hits his shot outside the 45 feet diameter he loses the total of his bid. If he hits it within the 45 yard circle he earns his bid amount. If he hits within the 30 ft diameter he earns double his bid amount and if he hits inside the 15 diameter he earns three times the amount of his bid. The same formula is used for the target 100 yards away.

For example:

If the target was 40 yards away from the tee, the player would have four points available to use for bidding, for each shot. So if a player was hitting a 40 yard shot and he was bidding 4 and he hit it within 30 feet his points would be doubled. If the player misses the target completely he loses half of what he bid on that shot. For example, if you bid 4 and missed the green completely he would score a 2.

Full Swing Driving Accuracy Challenge

Rules of the game:

Each player will have 5 driving accuracy tee shots (Any club can be used). Fairway width should be determined by the player group level. Suggested width for Player Level is 40 yards, for Sport Level 35 yards and Champ Level 30 yards. Points are awarded on both their accuracy and length. If player hits within the fairway width they receive 1 point for every 10 yards their ball travels. Flags can be used to designate every 10 yards or PGA Professional can use a rangefinder to accurately determine length. No points are awarded if player hits outside the designated fairway.

PGA Professionals are encouraged to participate and compete against their juniors!

(The following passages on the history of golf, rules, sportsmanship and etiquette can be copied and provided to students to help develop their foundation in golf.)

History of Golf

Most historians agree that the Dutch have the earliest ties to the game of golf. Thirteenth century Dutch literature contains references to “golf-like” games, and Dutch master painters have depicted more than 450 images of subjects participating in a game similar to what we know as golf. The game as we know it today began around 1744 in St. Andrews, Scotland. Golf in the United States can be traced back to 1888, with the establishment of the first official registered club, the Golf Club of America, in Yonkers, N.Y. Today, golf is played around the world and has many different levels of competition. In 2016, golf will become an Olympic sport for the first time in more than 100 years.

Rules

The Rules of Golf are written by the United States Golf Association (USGA) and The Royal and Ancient Golf Club of St. Andrews, Scotland.

- Golf is one of the few sports in the world where the people playing the sport make sure that the Rules are followed by each person playing the sport.
- Honesty is a very important part of golf – each person is responsible for calling penalties on themselves when a rule is broken.
- Each golfer can carry no more than 14 golf clubs when they play a round.
- Golf scores are kept with strokes. A stroke is counted each time that you swing and try to hit the ball.
- Each hole on a golf course has a par, which is the score that golfers shoot for when playing. Par for each golf hole is determined by the length of the hole, and a hole may be a par 3, 4 or 5.
- A Birdie is one stroke under par.
- An Eagle is two strokes under par.
- A Bogey is one stroke over par.
- A Double Bogey is two strokes over par.
- The person with the lowest score on a hole has the “honor” on the next hole. When someone has the “honor,” they play first on the tee.

Pace of Play—The amount of time it takes to play a golf hole is known as “pace of play.”

- 9-holes of golf should take 2 hours or less
- 18-holes of golf should take 4 hours or less
- Play each hole without delay, and you should be ready to play when it is your turn.
- The person farthest from the green or cup should play first.
- Limit yourself to no more than one full practice swing before each shot.

Sportsmanship, Rules and Etiquette Assessment

Answer the following 10 questions. The answer will be either TRUE or FALSE. Each question is worth 1 point.

1. Always make sure someone is in front of you before you swing the club.
2. Golf scores are kept with strokes.
3. If you think a golf ball may hit someone yell, "Fore!"
4. It is O.K. to put your golf bag on the green.
5. When you take a divot, you should replace it or fill the hole with sand/seed.
6. A golfer can call a penalty on themselves.
7. The Rules of Golf allow a golfer to carry more than 14 golf clubs in their golf bag.
8. The person with the lowest score on a hole has the "honor" on the next hole.
9. It should take you three or more hours to play nine holes.
10. The farthest person away from the green or hole should play first.

Evaluations

PGA Sports Academy Student Weekly Evaluation Report							
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Fitness & Nutrition							
Nutrition							
Golf Skills							
Sportmanship							
Etiquette							
Rules							
Safety							
Golf & "Near Golf" Experiences							
Golf & Physical Assessments							
Attitude/Behavior							

Professional Signature: _____

Student Signature: _____

**A player needs to score a Gold to move onto the next level. The player will have 5 attempts.
2 Bronze = 1 Silver and 3 Bronze = Gold**

PGA Sports Academy Student Weekly Evaluation Report									
	Player Level			Sport Level			Champion Level		
	Bronze	Silver	Gold	Bronze	Silver	Gold	Bronze	Silver	Gold
Fitness & Nutrition									
Nutrition									
Golf Skills									
Sportmanship, Etiquette, Rules and Safety									
Etiquette									
Rules									

Safety									
Golf & "Near Golf" Experiences									
Golf & Physical Assessments									
Attitude/Behavior									

Professional Signature: _____

Student Signature: _____

PGA Sports Academy Player Self-Evaluation Report			
	Fair	Good	Excellent
Fitness & Nutrition			
Nutrition			
Sportmanship			
Etiquette			
Rules			
Safety			
Golf & "Near Golf" Experiences			
Golf & Physical Assessments			
Attitude/Behavior			
Golf Skills			
Putting			
Chipping			
Irons			
Driver			

Professional Signature:

Student Signature:

Fitness and Nutrition

Junior Development

Childhood development is important to create the motor pathways for adults. These can be classified as windows of opportunity. The first window of opportunity for preventing or correcting physical imperfections is in early childhood, when the child first starts discovering and learning how to move. At approximately two to three months of age, the child may just be rolling from chest to back, but the neural pathways for movement are beginning to form. The next locomotive pathway formed during child development is crawling. The child formulates a system of trials to move from point A to point B. This is the formation of the “true” cross-crawl pattern, as the child’s right arm extends and the left leg extends (the cross-crawl pattern is discussed further later in this lesson). During this crawling action, the child’s abdominal and lower back muscles are forced to stabilize the trunk and assist movement. Theories suggest that this proper crawling pattern is necessary for proper muscular development, and bypassing the crawling stage (that is, progressing directly to walking) eventually delays motor development and creates an inefficient walking pattern.

As children start to move into vertical positions (by holding, pulling, or climbing) and eventually begin walking, they continue to use the cross-crawl patterns of movement. These movement patterns are ingrained in the nervous system and improved throughout the child’s growth and development.

The majority of these progressions are mainly left up to the parents or in many cases the child themselves. The parents need to help encourage and assist the development of the individual through many stages of development. A child who is mainly confined to a car seat or bouncer seat does not roll and crawl around the floor and delays early development. This is a concern for golf professionals as you work with juniors of all ages. The developmental delay may not be noticed until they are around eight to ten years old.

Long Term Athletic Development Model

As the child grows and matures, he or she should perform physical activities on a daily basis. Parents often ask what the best age is for children to start participating in sports or organized physical activity, how often they should participate, and how long the activity should be performed each day. The answers to these questions are summed up in the Long Term Athletic Development model designed by Istvan Balyi. The model centers on the Ten Year Rule and the building of fundamental movement skills.

The Ten Year Rule was created by Anders Ericsson and George Herbert Simon and asserts that, “It takes ten years to excel in any activity.” This is evident in most Olympic athletes, where the amount of time athletes must participate in their sport in order to excel has been between 12 to 14 years.

Fundamental movement skills were first proposed by Dr. Vern Seefeldt from Michigan State University and validated through later research. Seefeldt’s research says that children must complete a level of competency in certain fundamental movement skills if they are to break

through a hypothetical proficiency barrier and successfully engage in sport specific skills later in life. The fundamental movements are an essential component of the long term athletic development and are an entire stage of development (stage II).

There are seven stages in the Long Term Athletic Development model:

1. **Active Start** (ages 0-6)—Primary movement development. Cross-crawl patterns of movement and development. Main focus is keeping active, rolling, crawling, walking, climbing, playground activities.
2. **FUNDamentals** (ages 6-9)— Focus on gross motor movements, walking, running, hopping, skipping, jumping, kicking, throwing, catching, striking, skating, skiing, learning by discovery. Speed window, athletic movements, general overall development, locomotion, stability, manipulation, awareness.
3. **Learning to Train** (ages 9-12)—Skill development, transition from fundamental movement skills to fundamental sport skills, participation in multiple sports, patterns of movement, 80 percent training, 20 percent competition.
4. **Training to Train** (ages 11-16)—Speed window, major fitness development stage.
5. **Training to Compete** (ages 15-18)—Sport-specific training, continued fitness development, increased number of competitions.
6. **Training to Win** (ages 18+)—Focus on high performance, year-round training, plan for peaking.
7. **Active for Life**—Better opportunity if physical literacy is achieved before age 15.

Each stage requires that the child achieve a proficiency of movement before he or she can progress to the next stage. In order for the child to achieve his or her full potential, he or she must master the fundamental movement skills associated with each stage. The mastery of the fundamental skills creates the neural paths for future skill development; if the fundamental skills are missed, then the neural path has to be created to learn the new skill. This new skill must be stronger than any old habits, and numerous repetitions are required in order for the new habit to become subconscious. Therefore, a junior who is well versed in golf swing mechanics, but is limited in fundamental motor skills, will not be able to learn new general athletic skills as quickly as an athlete who has achieved proficiency at each level.

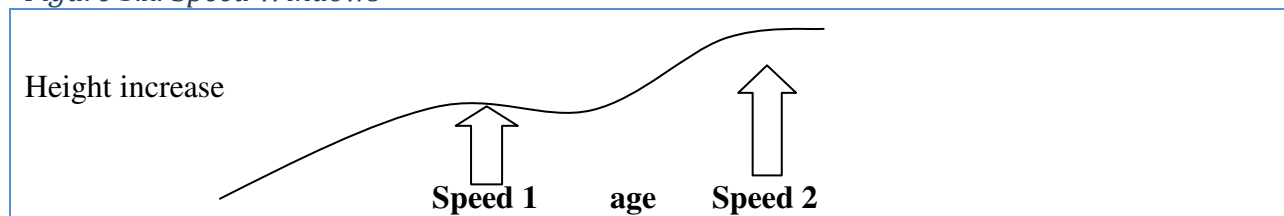
The ages attached to each stage are meant to give instructors a general guideline and could vary by as much as two years in either direction. Because individuals grow at different rates or are born at different times in a calendar year, instructors should base breakdowns of students' abilities on biological development, not chronological criteria.

For example, consider two juniors named John and Steve. John was born on January 3, 2000, and Steve was born on December 3 of the same year, and is also a late bloomer. Grouping these students chronologically would place them in the same event, even though Steve could be as much as two years behind John developmentally. Steve's participation in sports in general could be affected negatively because he is usually picked last for teams, is viewed as inferior by the other students, and could get frustrated with the activity. In reality, if grouped according to fundamental movement skills, Steve could excel in two to three years, and the goal of junior development is to help students achieve excellence at later ages.

Growth Phases

In addition to assessing the student's physical competency when determining the student's phase of development, teachers should also attempt to determine the student's growth phases. Knowing where a student's growth spurts (also called peak height velocity curves) occur help teachers identify proper windows of opportunity, or **speed windows**, to help the student develop. The speed windows occur in the FUNdamental phase and the Training to Train phase, when growth has slowed and nerves and muscles are creating the framework for the student's future development. This window is an illustration of a growth phase and when to incorporate speed training.

Figure 3.x: Speed Windows



Stamina, skill, and suppleness should be emphasized in developmental training while the child is growing rapidly, while speed and strength should be emphasized when a leveling of growth occurs. However, a problem with this theory is that it is difficult to determine when a growth spurt as occurred until after the spurt has finished. Therefore, the ideal training program should incorporate speed, strength, power, mobility, flexibility, and year-round participation in multiple sports.

Think of the junior player as clay to be molded, as they are developing the neural pathways necessary to become excellent athletes. Early specialization creates imbalances and specific muscle movement patterns; the student will perform the trained movement pattern very well but will have a hard time varying from that specific pattern. The more activities the student learns and develops, the wider the variety of movements they can perform at a later age.

Junior Physical Evaluations

There are a variety of performance evaluations that can be used to determine a junior player's physical ability. In order to determine physical ability, the instructor must first determine motor skill ability. Testing the junior player on throwing, striking, running, hopping, skipping, jumping, kicking, and even swimming and bicycle riding is valid, as these are activities most young players should be proficient in by early adolescence. As a junior player grows older, these skills need to be incorporated in order to ensure proper motor skill continuation throughout growth.

Early in the training process, the instructor should have the junior player respond to a questionnaire concerning the student's goals and objectives. At this stage, it must be determined whether it is actually the student's ambition to play golf (as opposed to someone else's ambition, such as his or her parents), as well as how many sports the student participates in. At about age 12, juniors tend to start to determine their sport of choice, as well as whether they are going to be competitive or recreational in that sport. Specialization should not occur until later in the teenage years.

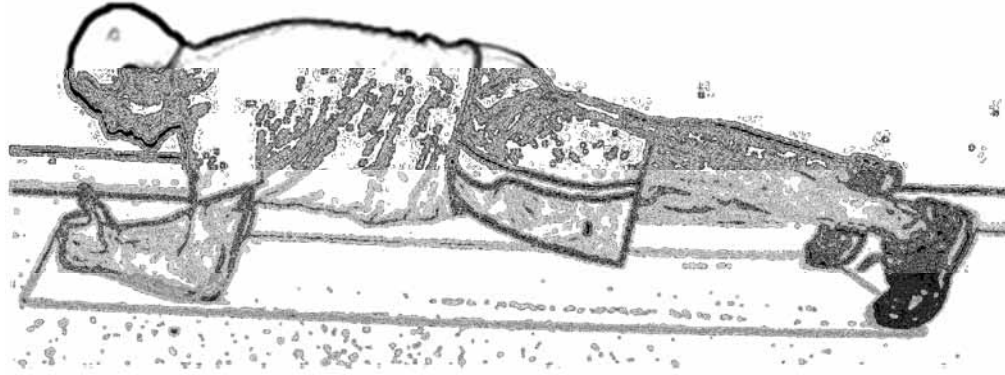
Junior Performance Tests

Evaluating juniors throughout their growth and development helps ensure proper skill progression throughout their golf careers. The instructor can either set up specific motor skill test days or incorporate motor skill training activities into the golf program.

All the testing and exercise activities should have an accuracy and distance component for throwing, striking and kicking. Multiple activities incorporating a variety of implements should also be utilized for a well-rounded athletic development program. Skipping, hopping, swimming and bicycle riding should be evaluated based on movement patterns. The arm and leg cross-crawl pattern of movement is the main criteria for evaluation. Does the student create proper movement with the activities? Does he or she have good body control during skipping, cycling, hopping, and swimming? Does the motion look fluid, or is the student struggling with the activity? These are the questions that need to be answered while watching the movements. The following are several important, fundamental tests for performance that can be used for evaluating junior players:

- **Skipping**—Set up an area about 20 yards wide and ask the student to skip across the area. Evaluate the student's arm-leg action, body control, and skipping action.
- **Hopping**—Set up an area 10-15 yards wide and ask the student to hop across. Evaluate the student's body control, hopping action, arm action, and overall body position during the movement. Do they lose body control while hopping, for example falling forward?
- **Throwing**—Have the student throw a baseball, golf ball, football, and/or big ball for distance and accuracy. Evaluate the cross-crawl pattern of movement. Does he or she throw with the right arm and step with the left leg? Is the upper body rotating to the throwing side during the cocking phase of the throw, and do they follow through after releasing the ball?
- **Kicking**—Have the student kick a football, soccer ball, and/or big ball for distance and also for accuracy. Evaluate cross-crawl movement pattern. Does he or she kick with the right leg and swing the left arm? Does the upper body rotate during the motion?
- **Swimming and Cycling**—These tests may simply involve asking the student if he or she can swim or cycle unaided. Has the student taken swim lessons? Swimming is a large coordinated motor skill, meaning one's extremities are working in sequence to transport oneself through the water. Can the student pedal a bike and maintain balance? Cycling determines balance and control during an activity.
- **Abdominal Stability**—Have the student maintain a front pillar position (Figure 3-1) for as long as possible. The older the individual, the longer he or she should be able to keep the hips in line with the shoulders. The player should be able to maintain this position for at least 30 seconds. The maximum time for this test is 120 seconds.

Figure 3-1: Abdominal Stability



- **Balance Test**—This is a single-leg stance test. Have the individual stand on one leg, placing the other foot on the inner thigh of the leg he or she is standing on. The student should maintain this pose for up to 120 seconds. Also try this same pose with the eyes closed.
- **Standing Long Jump**—Mark a line on the ground, and have the student stand behind the line and jump forward as far as he or she can. To determine the distance jumped, measure from the start line to the heel of the foot that landed closest to the line.
- **Push-Ups**—Have the student lie on the ground with his or her hands placed on the ground, shoulder width apart at chest height, feet together, and toes on the ground. Place a towel or six-inch block under the student's chest. Have the student press up so his or her arms are straight and his or her back is flat, with hips in line with the shoulders. Once the student is at the top, he or she should lower back down, bending at the arms until the chest touches the towel or block, and then rise back up. Repeat until the student can no longer touch the block or press back up. Count the number of completed push-ups.
- **Modified Endurance Test**—The modified endurance test is for determining overall fitness levels. Juniors who are seven years old and younger will run 400 yards and kids who are eight and older will run 800 yards. Use a stopwatch and time the students as they run the total distance.

The abdominal stability, balance, standing long jump, push-up and modified endurance tests are performance tests to determine power, strength and muscular endurance. The numbers and times recorded during these tests should improve with training and sport participation. As the test scores progress, overall golf performance will improve as well.

Designing a Training Program

A proper program progression is critical for a student's continual motor skill and sport skill development. The main components of a physical training program are strength, speed, power, mobility, flexibility, stability, nutrition and recovery.

Components of a Physical Training Program

Strength refers to the increase in one's muscular size and ability to lift or hold more weight. Force times distance equals work. If one increases the amount of work being performed, that increases the amount of strength being generated. Gravity is the resistance that creates the

increase in work. An increase of strength allows for an increase in speed and power development. **Speed** and **power** are interchangeable terms that refer to the ability to move an object rapidly. Golf is a game of speed. Individuals need to learn how to train quickly and under control in order to create a greater swing speed. Power is defined as force times distance divided by time.

Strength exercises are often interpreted as power movements. The bench press or squat, for instance, is strength movement, as there is no time limit on the movement. Two examples of power activities are an Olympic lift and the 100-yard dash. The Olympic lift requires a rapid movement of a weight from one's knees to the shoulders (or above the shoulders) as quickly as possible. The 100-yard dash is running from point A to point B as fast as one can.

Flexibility refers to the length of a muscle in a specific movement, such as touching one's toes. The end range of motion determines the movement, and the joint or the muscles involved in the movement determine the end range of motion.

Mobility is the ability to move around a joint. This is similar to flexibility; however, mobility is more of a movement term and flexibility is a static term. The golf swing is a dynamic action—therefore, determining a range of motion during activity is more important than a held position. Think of mobility as a rotational movement or the incorporation of multiple joints in a motion.

Stability is the ability to hold a specific position for a period of time. This is normally associated with the mid-section of the body. Joints such as the hip and shoulder need to create stability throughout movements in the golf swing. Players will tend to lose balance if they are unable to hold a stance for a period of time. In addition, the inability to stabilize on one leg often causes a loss of balance.

Nutrition comes from proper diet. The simple form of nutrition involves creating a balance in food intake, incorporating protein, carbohydrates, fats, fruits, vegetables, and nuts into one's meals. Timing is an important component in creating proper nutrition. Eating every two to three hours brings about continual digestion and full utilization of the essential nutrients in the food. Consuming a protein to carbohydrate ratio of 1-2 after a workout, round of golf or tournament is important to enable the body to replace the lost nutrients and start the muscle recovery process.

Recovery is the most overlooked training component. Juniors often stay up late and end up getting less than the optimal amount of sleep (seven to nine hours per day). They also often have sporadic eating habits, which can decrease the amount of essential vitamins and minerals needed for growth and development. The body builds up muscle, bone and the immune system through the recovery process.

The rest between exercise bouts will also determine the energy system being trained. For example, when training for speed, it is essential to rest 60-90 seconds between sets. When training for maximal strength or power, it is important to rest two to three minutes between exercise bouts. This allows for optimal recovery of the phosphocreatine system and formation of Adenosine tri-phosphate, or ATP, which is the energy source for one's body.

Energy Systems

The human body has two main energy systems: the anaerobic and aerobic energy systems. The anaerobic system can be broken down into two sub-groups: the ATP-PC system (where PC stands for phosphocreatine), and the lactic acid system (or anaerobic glycolysis system).

The aerobic system requires oxygen for energy, while the anaerobic system does not. The aerobic system is used during sustained activity for at least three minutes, while the anaerobic system is used during activity of less than one minute. The ATP-PC system provides the power for activities that last for less than 10 seconds. The anaerobic glycolysis system is used during activities that last from 10 seconds to about one minute.

There is an energy system continuum that incorporates the three classifications, meaning that each activity has a percentage of involvement throughout the duration of the movement. For example, a long distance runner starts off and requires a bit of the ATP-PC system, then transfers to the anaerobic glycolysis, and finally to the aerobic system. Throughout the run, he may need a boost of power, at which point the ATP-PC system kicks in before the runner returns to using the aerobic system.

The golf swing is less than two seconds and primarily employs the ATP-PC system. The walking between shots, standing, and talking requires oxygen, and therefore uses the aerobic system. The development of the aerobic system is important to aid in phosphocreatine restoration.

For the creation of exercise activities, it is important to understand how the body recovers from certain bouts of activity and how the muscles adapt to training:

- Power movements are best at 1-5 repetitions, with recovery between sets at 2-5 minutes.
- Maximum strength movements are best at 1-3 repetitions, with recovery between sets at 2-5 minutes.
- Strength movements are best at 4-8 repetitions, with recovery between sets at 2-3 minutes.
- Hypertrophy, or increase in muscle size, is best at 6-12 repetitions, with recovery between sets at 60-90 seconds.
- Muscular endurance is best at 12-plus repetitions, with recovery between sets at 0-60 seconds.

These variables are best suited for highly trained individuals looking for optimum training. In optimal training, the fatigue factor and recovery are essential in the development of muscular power and maximal strength. The long rest allows for the replenishment of the phosphocreatine stores and the nervous system. For instance, training with power movements for greater than five repetitions has shown to greatly increase fatigue and potentially increase injury.

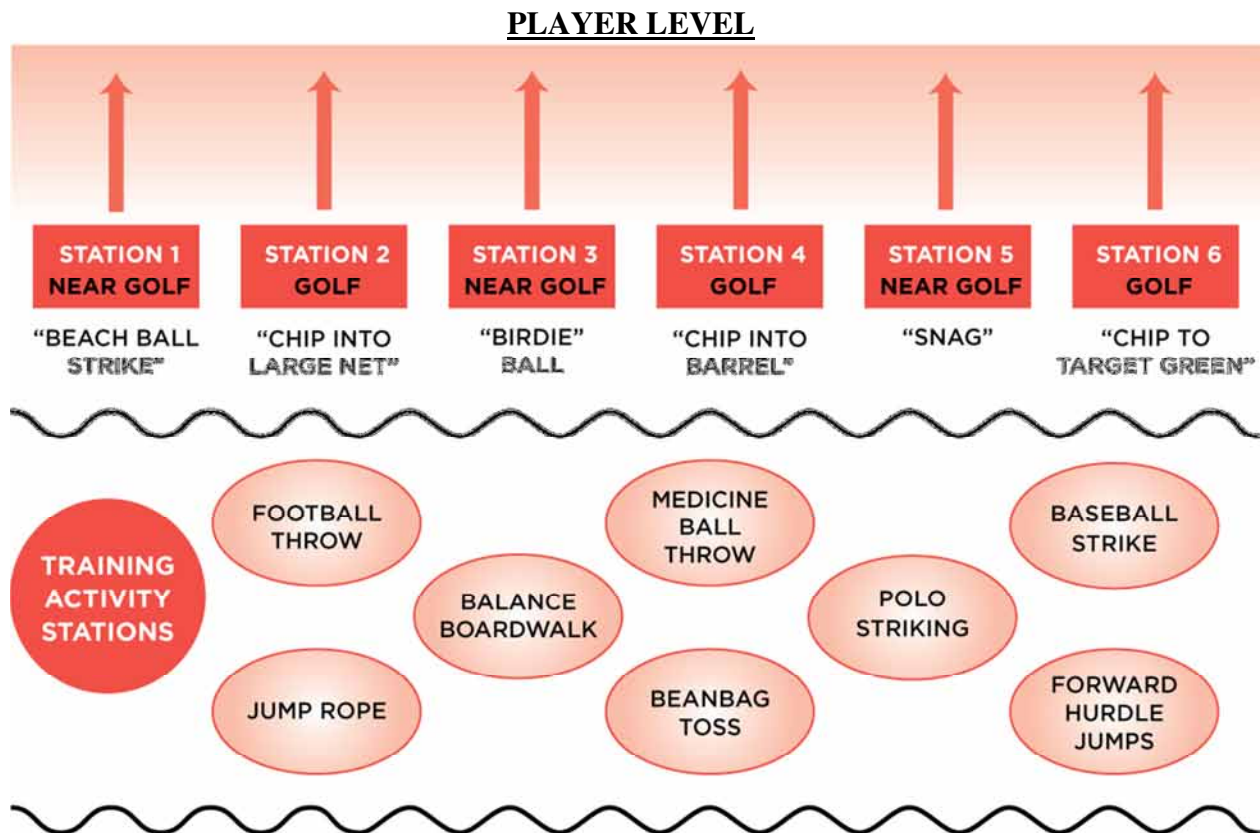
The general public will follow more of a muscular retraining program that fits into the muscular hypertrophy and muscular endurance protocol. This higher repetition range allows for myelination of the nervous system to the muscles. This allows the muscles to increase in strength, stability and activation. The individual needs to relearn how to move specific muscles and muscle groups that are necessary to move the skeletal structure into the proper position.

Designing a Junior Training Program

The priority in designing a junior training program is to improve the students' overall athleticism. The instructor must make sure that the students' fundamental movement skills are being addressed or that they are proficient in these movements. Incorporating the movements into the sessions is important throughout the students' development. The individuals will all have phases of accelerated growth that will delay sport skill progress. These are the stages of development where continuing the fundamental movement skill training will allow the individuals to continue to progress appropriately.

The emphasis in a junior program should be athletic development. A junior can start resistance training as early as six years old; however, the initial strength gains will be primarily an increase in nerve endings innervating the muscle.

Incorporating games and activities into the training program tends to be beneficial for junior players between ages six to nine. Utilizing medicine balls, stability balls, dumbbells, and cables are the best way to start a junior on an athletic improvement program. When working with adolescents, a program that pushes the student through the fundamentals of training is essential. Creating training activities along with golf activities during camps or weekly golf programs ensures the continuous development of the students' fundamental skills. For example, with students aged five to seven, a program alternating near golf and golf stations with training activity stations in the background could be used.



For students 5 to 7, we suggest minimizing the golf club stations. Stations 4 and 6 should be substituted with Baseball Strike and Polo Striking from the Training Activity Stations; those training activities, in turn, could be substituted with relay races and abdominal stabilization.

The idea in this age group is more game playing and fun activities that encourage motor skill development and challenge the nervous system. Every sport incorporates strength, stability, mobility, power, change of direction, quick response and overall athletic development.

The junior development training progressions should follow these guidelines:

- **Stable to Unstable**—The progression should start with a stable base, in which the student has both feet on the ground. With this stable base, the student should first be taught an athletic stance rather than a golf stance, because juniors tend to have difficulty mastering a firm golf stance right away. As was discussed in the Level 1 *Introduction to Teaching and Golf Club Performance* course, the “All or None” muscle theory states that if a muscle fiber does not fire, then the entire muscle group will not fire. Moving a student too quickly to an unstable environment will cause the body to activate the dominant muscles to work to help stabilize the body. The instructor needs to create a firm foundation by training the body to move from an unstable state to one that is more stable as a foundation for the golf swing.
- **Movement Before Resistance**—The junior athlete should focus on the technique of the movement, not how much weight he or she is lifting. Most juniors are unable to produce speed or power efficiently. Teaching the sequence of movement and ensuring proper activation is more important than increasing the amount of weight they are lifting. Students should first master the movement and then gradually increase the weight.
- **Abdominal Control (Stability) Before Variety**—The abdominal and lower back areas are often lacking in strength or stability because of peak height velocity or growth spurts. The “Stable to Unstable” guideline also applies to the abdominal region. In order to allow for proper muscular development, it is important to teach the student how to stabilize and support his or her own body weight and proper movement through the abdominal region with proper contraction. Additionally, there are a number of juniors who breathe incorrectly. Breathing predominately with the chest instead of the diaphragm causes a disruption in abdominal stability. As an individual inhales, their abdominal area should increase in size, and when exhaling, the area should get smaller, with minimal movement in the chest area.
- **Unilateral Activities:** The majority of sporting activities are performed on one leg or utilizing one arm. The golf swing has a transfer of weight from one side of the body to the other. Proper training should be performed on the single extremity to ensure balanced strength in the legs and arms. Using dumbbells instead of a bar for arm training allows for proper movement and balanced training as well as proper breathing patterns.
- **Athletic Before Specialization:** If a junior is trained as an athlete, this allows for more golf-specific training on the range or course. This is the fundamental movement training of skipping, jumping, hopping, throwing, kicking and striking. There needs to be a mastery of the fundamentals in order to ensure advancement with the specifics of the sport.

- **Proper Firing Patterns:** Cross-crawl patterns of movement can be disrupted with improper training. Additionally, the utilization of barbells and holding one's breath during lifting movements can disrupt cross-crawl firing patterns. The extension of the right leg and left arm are essential components of a proper golf swing. The rotator motion of the golf swing incorporates proper cross-crawl patterns of movement.

These guidelines can also be incorporated into an adult training program. Adults who do not have a previous training history are similar in many ways to juniors who are still developing. These adults may be awkward with the majority of training movements due to the lack of muscular involvement or muscular activation. Training the adult to be a better athlete will help him or her improve their golf swing through increases in core stabilization and hip stability. The training program benefits are achieved from consistency. The more often an individual works out or trains, the more improvement he or she will see in training and golf performance. The workout is a stress that is placed on the body, and the body will adapt to the stress and build muscle, strength, stamina or whatever improvements the student is trying to bring about. This is referred to as the **SAID (Specific Adaptations to Implied Demands)**, which suggests that an individual who only trains his or her lower body will only get stronger in the lower body. This is why it is important to incorporate all aspects of training (strength, speed, power, mobility, stability and recovery) into each training session.

The majority of training program designs will fall in the hands of an exercise specialist, but it is important for the golf professional to understand proper progression and a training program overview to help educate clients and get them the help they need.

Nutritional Plan

Establishing a proper nutritional program begins with a consistent eating pattern. The first part of the day should begin with breakfast. The body has been dormant for six to ten hours; however, it has still been active. The muscles, heart, internal organs and brain are still functioning in some capacity. The body is burning calories while sleeping; therefore eating breakfast within an hour of waking is essential to help fuel your body and replenish the nutrients that were utilized while sleeping.

A plan for the day needs to be established to create the opportunity to eat snacks and meals every two to three hours and drink plenty of water throughout the day. A good rule of thumb is to drink half your body weight in ounces throughout the day.

HYDRATION

Dehydration is counterproductive to athletic performance. Minor dehydration impairs concentration, coordination and reaction time, reduces stamina and compromises the body's ability to resist disease. Dehydration of muscle of only three percent can cause about 10 percent loss of contractile strength and eight percent loss of speed.

Water plays a significant role in the effective functioning of the body in any athletic endeavor. All muscle actions occur because of the cellular reactions that initiate nerve impulses. Water acts

a solvent for these reactions to occur. During exercise, the muscles need to contract at extremely high speeds, which is dependent upon precise communication between the nervous system and the muscles. Dehydration of muscles (leading to a sub-optimal balance between the muscle cell and the extracellular compartments) will cause the nerve impulses that contract the muscles to function at an inefficient rate. This will decrease the ability of the muscles to work at a maximum efficiency.

Water is essential as well in maximizing the delivery of oxygen to the muscles; inadequate delivery of oxygen will lead to premature fatigue.

Seventy-five to 80 percent of energy expended during exercise is converted to heat. Water is the primary mechanism for heat removal through dry heat exchange and sweating. During exercise, the heat produced can raise the body temperature dramatically and can cause serious heat injury if adequate body water is not present to control it.

Here are some important guidelines for adequate water consumption:

- The best rehydration fluid is cold water; sports drinks ranging from 6-10 percent glucose are also good.
- Avoid fluids with caffeine or alcohol (energy drinks, coffee, tea, sodas, diet soda, beer, etc.); they increase urine production, which in turn increases dehydration.
- Salt tablets aggravate the condition by drawing more water out of muscle and into the stomach.
- A good general rule is to consume half your body weight in ounces per day.
- Pre-event: Competitors should drink about 16 ounces of fluid about two hours before exercise to promote adequate hydration and allow time for excretion of excess water.
- During event: Athletes should start drinking early and at regular intervals in an attempt to replace all the water lost through sweating. It is recommended that the athlete drink eight ounces (one cup) every 10-15 minutes.
- Post-exercise re-hydration: Individual should drink two cups (16 oz) for every pound lost during the duration of exercise.

MEALS AND SNACKS

Meals and snacks need to incorporate a balanced intake of fruit, vegetables and nuts, lean sources of protein, essential fats and healthy carbohydrates.

INCORPORATE FRUITS, VEGETABLES AND SEEDS INTO EVERY MEAL

All of the foods found in this step have similar properties that are essential to the high level athlete in any sport. Sports have different metabolic demands, but the two main goals of any training/nutritional regimen are the same: maximize performance and enhance recovery to minimize injury.

These foods contain antioxidants, which protect cells from the free radicals that contain by-products that are damaging to the body's metabolism. Antioxidants found in whole food sources are much more effective than those found in vitamin supplements. They also contain natural anti-inflammatory properties. Some inflammation of muscles, tendons and ligaments is inevitable in any high-intensity athletic pursuit. But prevention of *excessive* inflammation, plus treatment of

inflammation, are two of the most important aspects of maximizing performance and enhancing recovery. Fruits such as pineapple and papaya have key enzymes that possess anti-inflammatory properties.

The phytonutrients found only in fresh fruits and vegetables serve multiple functions. They contain antioxidants and enhance the body's immune system; they reduce inflammation and augment the effects of Vitamin C; they block the enzyme that raises blood pressure; and they strengthen the vascular system that carries oxygen and essential nutrients to the cells.

Many of these foods are essential for any athlete looking to maintain or lose body fat. The nuts, seeds and oils in this group are high in unsaturated fat but low in saturated/trans fat. Unsaturated fats are good; the body needs and utilizes them without storing them.

These foods are high in Vitamin A, which provides optimal protein synthesis and hormone production; regulates the body's immune system; helps to support tissue maintenance; and helps to maintain optimal vision and bone growth. Particularly good are tomatoes, broccoli, yams, dark salad greens, red/green peppers, spinach, carrots, peaches, cantaloupe, grapefruit, watermelon, mangos, tangerines and mandarin oranges.

Vitamin C aids in the formation of collagen (a protein that gives structure to muscle); helps reduce muscle soreness and increases regeneration capabilities of the muscles; directly scavenges free radicals; restores Vitamin E to its antioxidant form during periods of high stress (exercise); and aids in the absorption of iron. A suggested supplement of no more than 1 g/day (1000/mg) is ideal. Vegetables high in Vitamin C include cauliflower, green/yellow peppers, asparagus, green beans and new potatoes (w/skin). Among the best fruits are oranges, kiwis, strawberries, pineapples, blackberries, raspberries, honeydew and lemons.

Vitamin E is necessary for proper use of oxygen by the muscles as it aids in the efficiency and regeneration of the muscles; and it prolongs the life of red blood cells, which will improve the efficiency of the cardiovascular and respiratory systems and allow an athlete to train at a higher level longer.

Key foods in this category include nuts/seeds such as sunflower seeds, peanuts, almonds, cashews, peanut butter, whole wheat flour; avocados; olive oil; and fish such as salmon, trout, clams, oysters and scallops.

INCORPORATE LEAN PROTEIN SOURCES INTO EVERY MEAL

While carbohydrates' main function is to "fuel" the muscles, protein's main function is the "rebuilding/growth" of muscles. Many athletes are fooled into thinking that increasing protein intake will always result in an increase in lean tissue. However, the body can only utilize a certain level of protein – any more will either be stored (as fat) or excreted out of the body. Excess protein can also cause the body to become dehydrated.

This rebuilding and growth process spawned by protein is an on-going process; constantly supplying your body with protein throughout the day will maximize muscle growth. It's important as well to recognize that protein will only be used to build muscle if you eat enough carbohydrate calories to provide your body with energy.

It is important to diversify your protein sources. Many people over-consume animal proteins and either under-consume or eliminate the other types of protein. Even though it is difficult to find options to these other selections (especially the vegetable proteins), it is still important enough to diversify as much as possible. A good breakdown would be 50 percent animal proteins, 25 percent dairy proteins and 25 percent vegetable proteins

FOODS

Item	Serving Size	Protein	Source
Tuna (water packed)	7 oz (1 can)	54 g	Animal
Fish (cod or salmon)	6 oz	40 g	Animal
Turkey (skinless)	4 oz	35 g	Animal
Pork (lean)	4 oz	35 g	Animal
Red meats (lean – 7 percent fat)	4 oz	35 g	Animal
Canned chicken breast	5 oz (1 can)	30 g	Animal
Lamb (lean)	4 oz	30 g	Animal
Tofu (low fat)	6 oz	30 g	Vegetable
Chicken (skinless)	4 oz	35 g	Animal
Cottage cheese (1-2 percent)	1 cup	28 g	Dairy
Ground Turkey Breast	4 oz	22 g	Animal
Raw Kidney Beans	0.5 cup	22 g	Vegetable
Raw Lima Beans	0.5 cup	21 g	Vegetable
Raw Black Beans	0.5 cup	21 g	Vegetable
Raw Pinto Beans	0.5 cup	20 g	Vegetable
Turkey Chili (99 percent fat free)	1 cup	17 g	Animal
Yogurt (low fat)	1 cup	13 g	Dairy
Milk (low or no fat)	1 cup	8 g	Dairy
Boiled beans (kidney, black, garbonzo)	0.5 cup	7 g	Vegetable
Egg (whole)	1 large	6 g	Animal
Deli meats (turkey breast, ham, roast beef)	1 oz	5 g	Animal
Canadian bacon	1 oz	4 g	Animal
Cream cheese (no fat)	1 oz	4 g	Dairy
Egg (white only)	1 large	3 g	Animal

FATS

Fats are important to athletes because their metabolism contributes to energy production during exercise. The biggest misunderstanding athletes have about fat is that too often they try to eliminate fats to keep lean. But by cutting down or eliminating fats, the danger is you might actually over-consume other macronutrients (carbohydrates and proteins). If any macronutrient is over-consumed, it is either stored (as fat) or excreted out of the body.

Fats facilitate absorption of fat-soluble vitamins and provide essential fatty acids. They also help keep glycogen levels at needed levels; performance can decrease if glycogen levels drop too much. Low-fat diets can limit endurance performance at about 65 percent VO₂ max, where many athletes train and they are associated with menstrual dysfunction, anorexia nervosa, migraine headaches, ADHD and ulcers.

Unsaturated fats (good fats) that should be a part of every athlete's diet include olive oil, canola oil, flaxseed oil, soybean oil, nuts and seeds (vitamin E sources). The metabolic pathway with which these are utilized will drive the lipoprotein profile in a positive direction.

Saturated fats (bad fat) come from animal sources like beef. The metabolic pathway with which these are utilized will drive the lipoprotein profile in a negative direction.

Research shows that trans-fat is just as bad as saturated fat. It is usually listed in the ingredients as partially hydrogenated oil or hydrogenated oil.

A good diet includes only All Natural peanut butter. It is higher in fat than other brands but has little saturated fat and no trans-fat. Some brands have a layer of oil on top which needs to be mixed and refrigerated; other brands today are all natural without the layer of oil and are pre-mixed.

Margarine is worse than regular butter because of the processing, but butter itself has a lot of saturated and trans fat. An example of a spread that is low in saturated fat and contains no trans-fat is Smart Balance.

HEALTHY CARBOHYDRATES

Carbohydrates are the primary energy source for human activities and are found in nearly all foods that we consume. The beneficial physical factors for consumption of carbohydrates are increased energy storage in the muscle, protein-sparing effect (for growth and repair of muscle), and prolonged endurance. The popular opinion on carbohydrates is that they will get stored as fat. This is only partially true. Consuming too many of the wrong carbohydrates at the wrong time can lead to the storage of fat. However, learning the right type of carbohydrates to consume at the optimal times can have positive effects on both athletic performance as well as body composition. Elite athletes should have a carbohydrate consumption of at least 60 percent of total caloric intake.

The glycemic index (GI) is a measuring system that helps us determine the type of carbohydrates to consume at the correct times. The GI measures the rate at which carbohydrates are absorbed into the bloodstream. Foods are assigned values relative to the value of the standard food (glucose), which is equal to a relative score of 100.

High-glycemic carbohydrates trigger an immediate rise in blood sugar. These faster carbohydrates should *only* be consumed immediately after exercise or midway through a longer competition/training session (two hours or more). Consumption after exercise aids in the recovery process (immediately replenishing glycogen stores lost through intense exercise), and consumption during exercise provides a quick burst of energy when muscle glycogen stores are being consumed. They should be avoided the rest of the day.

Medium/low glycemic carbohydrates cause a slow, steady rise in blood sugar. These slower carbohydrates should be consumed with each meal throughout the day and are particularly important at breakfast because they replace the blood glucose levels depleted during sleep. Skipping breakfast (or carbs at breakfast) also puts the body into "shock" (starvation mode).

Chronically depriving the body of carbohydrates sends a message to the brain causing a change in basal metabolism. The result of this change is a sparing of fat for survival; which causes your body to utilize energy by breaking down muscle tissue. This is because your body will hold onto the energy source that possesses the highest density of calories (fat is nine calories per gram compared to protein, which is four calories per gram).

PGA Sports Academy

Sport Level



PGA Sports Academy

Purpose/Mission:

The PGA Sports Academy program is a collaborative framework based on research and best practices from PGA Professionals, PGA Education, allied associations and the Long Term Athlete Development (LTAD) standards for juniors adopted by the PGA World Alliance. The PGA Sports Academy's focus is to develop core golfers and provide them with pathways to continue to play golf socially or competitively based on each individual's desire.

It is imperative that every parent/participant understands the process of LTAD in the PGA Sports Academy program so that they have a clear understanding of what the PGA Professional is trying to accomplish with each participant. PGA Professionals are strongly encouraged to distribute a copy of The PGA Sports Academy Parent Resource to parents before their child begins the PGA Sports Academy to help outline the curriculum and expectations for the program.

Fun – First And Foremost

Fun – First and Foremost is our junior golf mantra. We must make sure new golfers are engaged and have a fun, interactive experience. To educate and get juniors involved in golf is the goal, but keeping it *fun* is the primary focus. It's crucial that instructors enjoy the experience—juniors will sense your love of the sport and hopefully become smitten for a lifetime.

PGA Sports Academy Curriculum Overview:

The PGA Sports Academy will help youth learn to play golf and have fun in the process. The PGA Sports Academy has three levels: Player, Sports and Champion.

Player Level Objectives

- Develop an understanding of the sport of golf;
- Learn fundamental movement and motor skills and link them together into the golf swing;
- Use ball-striking games such as baseball and hockey to develop hand-eye coordination;
- Establish essential safety and etiquette.

Sport Level Objectives

- Develop fundamental golf movement skills and teach overall sports skills;
- Learn scoring, the rules of golf and the process of playing a round of golf;
- Establish target and alignment fundamentals and begin developing proper short-game skills.

Champion Level Objectives

- Establish knowledge base in mental side of the sport;
- Develop full swing, short game and putting skills to higher level;
- Incorporate strength, stability and flexibility to improve performance and health;
- Enhance performance by learning course management skills, STAT tracking, keeping a golf journal and advancing to national competitions.

Each level includes five focus areas that will help juniors learn, develop and practice the skills to become better golfers and enjoy the sport of golf:

- Fitness and Nutrition;
- Golf Skills;
- Sportsmanship, Etiquette and Rules;
- Golf and “Near Golf” Experiences;
- Golf and Skills Challenges.

Each level will develop the necessary physical and golf skills to practice, improve and enjoy the sport. Juniors will be tested before they begin each level to determine their level of experience. At the end of each level, each participant will be tested again and will receive a score based on his or her skill level. The PGA Sports Academy will give each participant a practice program to improve their skills and set goals to help become a better golfer.

Delivery:

The PGA Sports Academy is designed to enhance PGA Professionals’ existing junior golf programs as well as provide a turn-key solution for professionals who wish to adopt the program in its entirety. The PGA Sports Academy is designed to be delivered at “green grass” facilities, but it can easily be adapted for in-school and after-school programs to help transition youth to PGA facilities. The curriculum is structured to be multi-dimensional with generous flexibility in terms of teaching methodology from PGA Professionals.

Knowledge of Game

Sport Level Overview

As highlighted in the Knowledge of Learning and Teaching overviews, younger and less developed juniors in the Sport Level will benefit most by instructional environments that highlight fun activities and games (as with the Player Level) while minimizing formal instructional settings. As the junior develops, the incorporation of structured lessons and structured practice along with competition will create an effective and rewarding instructional setting. Consideration should be given when designing the content and program schedule to the unique characteristics and needs of the individual students involved. Points to consider would include the varying skill, interest and growth levels of the various students.

Sport Level Instructional Focus

The suggested instructional focus in the Sport Level continues with the development of a square clubface, as with the Player Level, through the utilization of the pre-swing issues of grip, posture and alignment. In addition, the instructor should begin the awareness and integration of the clubhead path to the student. The intent of this strategy is to continue the development of the “building blocks/foundation” as well as the development of the student’s awareness of the importance of his/her clubhead path. This will help raise the student’s awareness of the Impact Factors and how the clubface position and clubhead path influence those factors.

Instructors at the Sport Level are better able to address in-swing issues because, as youngsters age, they develop their hand-eye and body coordination and have increased strength and endurance. In addition, this junior will begin to develop an increased understanding of the importance of practice and its impact on development. Positive feedback is always important. As with the Player Level, the use of video to highlight technique issues is *not* suggested with the younger, less developed Sport Level junior. However, it should be considered as a potential tool with the more developed Sport Level student. In either case, the instructor should utilize video to help monitor the effectiveness of the teaching/coaching of the junior.

Full Swing—Sport Level Pre-Swing Instructional Points

Grip

Since the grip is the golfer’s only connection with the club, it is important that the student appreciate the impact it will have on the overall swing potential. Unfortunately, the age and attention span of this level will more than likely not allow for a true appreciation of the importance of the grip. Keeping that point in mind, the instructor should attempt, through positive feedback, to reinforce a grip that the instructor feels most adequately fits the student’s needs.

The first key point in developing a sound grip is to teach the junior golfer that the palms should face each other with the back of the left and the palm of the right facing the target (for a right-handed golfer, of course).

Three steps can help the student ensure a correct grip:

1. Have the student hold the club at a 45-degree angle with the right hand.
2. Have the student position his/her left hand on the grip as if shaking hands.

3. Have the student slide his/her right hand towards the left, covering the left thumb.

3 pictures to illustrate procedure

Stance and Posture

Correct stance and posture require that the student's feet be positioned shoulder width and the body weight evenly distributed or slightly favoring the right side. The student's arms should be relaxed and hang directly below the shoulders. There should be a straight line running from the hips to the shoulders. The butt end of the club should point between the left hip and zipper. This address should be combined with a ball position that is center of the stance with irons, slightly forward of center for hybrids and fairway woods and even with the left heel for drivers. Correct stance and posture will allow the student the best opportunity to effectively swing the club as well as move his/her body while maintaining stability with the lower body.

Proper stance and posture are achieved in three steps:

1. The student stands tall with the feet positioned shoulder width.
2. The student adds a slight amount of knee flex.
3. The student leans forward from the hips to reach the ball.

3 pictures to illustrate procedure

Alignment

Neutral or square alignment has the clubface aiming directly at the target and the feet, hips and shoulders parallel left of the target line. This combination of target line and body line often is compared to a railroad track with the outer rail the clubface line and the inner rail the body line.

Neutral or square alignment is achieved by the following three steps:

1. The student positions the clubhead behind the ball with the clubface square to the target or an intermediate target.
2. The student positions the feet, hips and shoulders parallel to the target line.
3. The student adjusts their feet as necessary to establish parallel lines.

3 pictures to illustrate procedure

Proper alignment combined with correct grip, stance and posture are important in helping the junior establish a correct swing shape. Though these pre-shot steps take minimal time to achieve, junior golfers very often view them as unimportant and lack the discipline to regularly repeat the steps. Unfortunately, without these steps, consistent development and improvement are difficult.

Full Swing—Sport Level In-Swing Instructional Points

Most juniors traditionally learn the motion of the swing through a focus on the body turn, arm swing or a combination of the two components. An alternative approach to consider working with the Sport Level junior is that of creating an awareness of the direction the club is traveling during the swing. This focus is considered an "external cue" strategy with the focal point on the shaft and clubhead rather than an "internal cue" strategy that would place emphasis on the movement of the various parts of the student's body. These full swing "external cues" highlight the specific positions of the club during the motion of the swing. Commonly referred to as checkpoints, these positions can be considered an alternative approach or supplement to a focus

on the student's body movement during the swing. The checkpoints for the full swing are as follows:

BACKSWING:

1. The initial takeaway of the clubhead from the ball.
2. The shaft is parallel to the target line with the toe of the club pointing up while the clubhead is on the shaft line.
3. The shaft is parallel to both the address shaft line and parallel shoulder line.
4. The shaft is parallel to the target line with the left arm on the secondary plane line and the clubface is square to the left forearm.

DOWNSWING:

1. The start to the downswing has the shaft parallel to the plane and shoulder line.
2. At waist height in the downswing, the clubhead is in the waist-height position in the backswing.
3. Impact, where the shaft has returned back to a similar position to that of address.
4. Waist height after impact is a mirror image of the backswing, where the shaft is parallel to the target line with the toe of the club pointing up.
5. Shoulder height after impact is a mirror image of the backswing and start to the downswing where the shaft is parallel to the shaft and shoulder line.
6. The finish has the shaft over the shoulder.

Short Game—Sport Level Pre-Swing Instructional Points

PGA Professionals and experienced junior golfers understand quite well the importance of short-game proficiency to producing lower scores. But it can be a tough sell to younger players interested in wailing away with the full swing. Instructors are encouraged to continue the “having fun” theme into their short-game sessions with the Sport Level golfer, focusing on the pre-swing issues of set-up and alignment and allowing the student to explore and experiment with the various short-game situational shots. When appropriate, the following information can be highlighted to explain the differences between various short-game shots.

Chipping/Pitching Definitions

Chipping is defined as a shot that covers more distance on the ground than in the air. The shot has maximum roll with minimum air time. Often beginning golfers take quickly to the concept of chipping as the slow speed of the swing and short distance the ball travels make it a relatively safe shot and one easier to execute than other shots.

Pitching is defined as a shot that covers more distance in the air than on the ground. The shot has maximum height with minimum roll. Though pitching is a more difficult shot, it is often the only option when trying to get the ball on the green and close to the hole.

In both cases, the height the ball reaches is determined by the set-up, loft of the clubface and speed of the swing. The distance that the ball travels in the air is the result of the length of the swing.

Chipping

A proper chip shot set-up for the junior can be achieved by the following four steps:

1. The student utilizes the same grip as the full swing, with the hands positioned lower on the grip.
2. The junior narrows his/her stance to a point where the heels are positioned less than shoulder width.
3. The student positions the ball back of center of the stance, with the butt end of the club in front of the ball.
4. The student leans his/her weight slightly to the left (or the foot closer to the target).

The proper execution of a chip shot can be achieved by the following three steps:

1. The backswing is a combination of arm swing with very little wrist or hand action and subtle body movement.
2. The downswing returns the clubhead to the ball with the club brushing the ground beneath the ball using a combination of arm swing and subtle body movement.
3. After impact, the arms swing the clubhead to a mirroring position of the backswing with a slight pivot or turn through of the body to the finish.

Club Selection for Chipping

With every chip shot, the ball should land on the putting surface as soon as possible. Varying the distance the ball rolls can be accomplished by changes in club selection, swing speed or a combination of both.

Difficult Chipping Situations

The chip shot set-up, with slight changes in the length of swing and weight distribution, is an ideal shot choice when the junior is faced with a situation such as hitting the ball off of hardpan or pine straw, out of a divot or even long rough. It is crucial for the junior golfer to learn how important it is to *strike the ball first* and then make contact with the surface beneath the ball.

Hardpan—Traditional chip-and-run set-up with special focus on keeping the weight on the left side throughout the motion. The golfer should expect shots to be hit slightly thin and as a result tend to roll a greater amount.

Pine straw—Traditional chip-and-run set-up with a special focus on impacting the ground slightly in front of the ball. A common error is to hit behind the ball in this situation, resulting in the ball being hit short of the intended target.

Ball in Divot—As with hardpan, the key to success in this shot is for the junior to keep his/her weight on the left side throughout the motion. Shots will tend to be hit slightly thin and, as a result, roll a greater amount.

Long rough—A traditional chip-and-run set-up can be used with a higher lofted club. The junior should attempt to swing the clubhead up slightly more vertically in the backswing to help ensure a more steep angle of approach to the ball through impact. The golfer should anticipate shots to be hit with very little spin, resulting in a greater amount of roll once the ball lands on the putting surface.

Pitching

A proper pitch shot set-up can be achieved by the following four steps:

1. The student utilizes the same grip as their full swing, with the hands positioned lower on the grip.
2. The junior narrows his/her stance to a point where the heels are positioned less than shoulder width.
3. The student positions the ball in the center of the stance, with the butt end of the club even with the ball.
4. The student balances his/her weight evenly between the right and left sides.

The proper execution of a pitch shot can be achieved by the following three steps:

1. The backswing is a combination of arms and hand motion, swinging the club to the waist-height checkpoint; the shaft will be parallel to the target line and the toe of the club up.
2. The downswing returns the clubhead back to the ball, brushing the ground beneath the ball.
3. After impact, the clubhead swings to a mirroring position to that of the backswing.

Varying the distance the ball travels in the air is accomplished by adding or taking away length to the backswing and forward swing. Depending on the length of the swing, the junior may have a slight amount of turn not only in the backswing but also in the finish.

Pitch Shot Club Selection

As with chipping, the junior should attempt to land the ball on the putting surface as quickly as possible. The use of different clubs will allow for the height to be varied, thus influencing the distance the ball rolls. Higher lofted clubs such as a sand wedge or lob wedge will ensure height to carry while eliminating a great amount of roll.

Difficult Pitching Situations

With practice and slight set-up changes, the pitch shot can be an alternate option to the chip shot when the junior is in the following situations. Note that the pitch shot from a difficult lie tends to be more difficult than the chip-and-run.

In each case of hardpan, pine straw, divots and long rough, weight distribution should be 60/40 favoring the left side. The length of the swing needed to carry the ball to the target will vary depending on the strength of the junior. In the case of playing from long rough, the swing should be no more than a three-quarter swing to ensure solid contact.

Bunker Play Definition

Though it does not require any change in the mechanics, a greenside bunker shot situation does require a slight change in the fundamentals. This shot is difficult for most juniors due to the inconsistency of sand on the golf course and the limited access for practice. No matter the level of the skill, the first goal should be to get the ball out of the bunker onto the putting surface.

Bunker Play

A proper bunker shot set-up can be achieved by the following four steps:

1. The student utilizes the same grip and alignment as the full swing.

2. The junior's stance should be shoulder width with the feet dug into the sand.
3. The ball should be positioned slightly forward of center in the stance, with the butt end of the club pointing to the center of the body.
4. The junior's weight should be balanced equally between the right and left sides.

The proper execution of the bunker shot is identical to the motion of the full swing and pitching motion. Slight variations in the overall length of swing determine the distance the ball carries.

Bunker Play Club Selections

As with chipping and pitching, the junior should attempt to land the ball on the green as quickly as possible while using a standard lofted (56 degree) sand-wedge. More experienced Sport Level juniors will find that a slight opening of the clubface at address will add loft to the clubface, resulting in a slightly higher and shorter outcome. Varying the speed of the swing is another option when attempting to vary the distance the ball flies. A third approach to varying the distance is through a combination of clubface position and swing speed. For younger Sport Level juniors, it is suggested that the clubface remain square to ensure the ball's advancement out of the bunker. Once confidence and success are consistent, then changes with the clubface and swing speed are possible.

Difficult Bunker Play Situations

With slight changes in the clubface position at address and length of swing, the greenside bunker shot can be used in the following difficult situations:

Buried Lie—Standard pre- and in-swing considerations for a bunker shot with a closed clubface at address. This will force the toe of the club to be the leading edge, which helps dig the ball out of the sand.

Wet Sand—Feet should be dug into the sand as much as possible to ensure that sand is taken during the swing. Keep the clubface square at address to help the club dig into the sand at impact.

Hardpan—Feet should be dug into the sand as much as possible to ensure that sand is taken during the swing. Keep the clubface square at address to help the club dig into the sand at impact.

Putting Definition

Putting is different than all other areas covered thus far because it requires the ball to roll. No height is needed; in fact, the better the roll of the ball, the more successful the putt. For the junior golfer, putting is crucial. The junior might think of putting as an equalizer that can make up for errant shots.

Putting

Grip

There are two grips: the reverse overlap and the ten-finger grip. The most important feature of the grip is the position of the student's hands in relation to the shaft. Both hands should have the grip positioned in the palms. Individual preferences can position the thumbs pointing down the

top or side of the shaft. The back of the left hand and palm of the right hand should remain square to the target line.

Stance and Posture

Correct stance and posture will have the student's feet positioned shoulder width with the body weight evenly distributed or slightly favoring the left side. The arms should be relaxed and extended naturally below the shoulders. Because of the closeness to the ball and the length of the putter, the student will be forced to curve his/her back slightly. Positioning their body comfortably to the ball is the main objective. The ball position should be slightly forward of center in the stance.

Alignment

Correct alignment has the clubface looking directly at the target. The feet, hips and shoulders can be positioned parallel left or slightly opened or closed to the target line.

Obviously, the fundamentals in putting are not as stringent as those of the full swing. This more relaxed view is due to the fact that the junior's body is inactive and stable in a proper putting stroke, leaving the student and instructor open to try different postures and alignments as long as the mechanics of the stroke remain intact.

The backstroke has two checkpoints that will ensure that the club is traveling in the correct direction on the target line. They are as follows:

1. The clubhead travels straight back away from the ball with the clubface remaining square to the target line.
2. Depending on the length of stroke, the clubhead will travel slightly inside of the target line with the clubface remaining square to the arc.

The forward stroke has two checkpoints:

1. The clubhead returns back to the ball on the target line with the clubface square.
2. After impact, the clubhead continues on the target line and, if necessary, swings slightly inside the target line, matching the backstroke in length and relationship to the ground.

The putting stroke is a combination of arm and shoulder motion. There is no need for body motion due to the lack of distance required. The order of motion begins with the arms and shoulders swinging the club straight back away from the ball with the clubface staying square to the target line. In the forward stroke, the clubhead returns back and through the ball, remaining on the target line with the clubface square. Throughout this motion, the head and body remain still, while the butt end of the putter maintains its relationship to the body. After impact the junior should attempt to hold the finish to review the contact with the ball and to determine if there was excess body motion. Distance of the putt is the result of the length of the stroke.

The putting stroke is easy to learn and should be taught to young children in the simplest terms. The power for the stroke should come from the shoulders. Rocking the shoulders back and forth or up and down will place the hands in a position to sense and gain feedback to be used for future shots. For example, when the shoulders create power, the hands can then sense the weight of the

putter, the length of the stroke and the club head speed at impact. Because the hands have such an important role in putting, how a junior grips the club is very important. Be cognizant of how your students' hands are working to determine if their natural grip allows their hands to work together. Repetition of this process through some sort of game will help in measuring the amount of power it takes to putt a ball a certain distance. Through this technique, children will be able to use and apply knowledge they have gained to judge future putts. This process will help them experience a reasonable amount of success and achievement, which establishes a great mental and emotional precedent that will act as a solid foundation to build future fun experiences.

Sport Level Pre-Shot and Post-Shot Routine

The purpose of a pre-shot and post-shot routine is to allow the junior an opportunity to focus his or her attention on playing the game rather than becoming distracted by errant shots and poor scoring. Typically, a pre-shot routine contains elements that can range from the junior assessing the lie of the ball to the visualization of the shot prior to the swing. A post-shot routine typically contains the elements of shot acceptance and performance evaluation. The pre-shot routine for the less developed Sport Level student should contain the elements of lie assessment, determination of distance, the type of shot to be hit and the club that should be used. As the Sports Level junior develops, additional elements such as the use of practice swings, a deep breath, shot visualization and an intermediate target can be added. The Sport Level junior should initially be introduced to the post-shot concept of shot acceptance; the element of performance evaluation would then be introduced as the player's skills and maturity improve.

Sport Level Drills and Drills with Aids

Two tools available to the instructor that can be helpful in the development of a student's overall swing shape are drills and training aids. The benefit of these tools is that they will allow the instructor an opportunity to shape specific components of the junior's swing while eliminating the need for specific technical swing thought discussions with the student. One of the keys to self-diagnosis in golf is for the student to have an understanding of the ball flight and how it relates to one's individual swing. Though it would be unrealistic to expect a Player Level junior to grasp the various ingredients and complexities of a swing at this stage, it would certainly be helpful in the future to the developing Sport and Champion Level golfers. In some cases, these drills and drills with aids will be familiar. A benefit to the instructor is that these examples will not only help to improve the overall motion of the swing but also help the junior to develop the feel of the swing. The following drills and drills with aids are but a small sample of the many that can be utilized by the instructor. In this case, these examples have been chosen due to their influence on the student's clubface, which is the primary focus of the Sport Level.

Practice Drills and Drills with Aids

The following text highlights a few of the more common drills and drills with aids that are utilized by instructors to improve a junior's impact with the ball. While this list is by no means complete, it can offer the instructor tools to help the student develop more correct technique as well as a better feel of the golf swing. To simplify matters, the drills are written for the right-handed golfer.

The following three-step process is effective when practicing a drill or drill with an aid.

1. The student makes a practice swing to an imaginary ball, focusing on what the drill is guiding him or her to do.
2. The student hits the ball, focusing on what the drill is guiding him or her to do.
3. The student hits a ball without the drill, attempting to create the same feel of the swing as in Steps 1 and 2.

These steps should be repeated until the swing and shot outcome in Step 3 are as proficient as in Step 2. At this point, Step 2 can be omitted, leaving only Steps 1 and 3 to practice. Finally, prior to assigning the student a drill, the instructor should take the time to personally practice and test the drill. This process will not only give the instructor an understanding of the drill's purpose, its strengths and weaknesses, but this process will also make the instructor familiar with any safety issues involved.

Drills to Influence Face

Toe-In Drill / Heel-In Drill

The "Toe-In Drill" begins with the student addressing an imaginary ball with correct posture and an eight-iron. After swinging the club to waist height in the backswing, the student swings back to an imaginary ball where the toe of the club is ahead of the heel. This exaggerated closed clubface position helps the student develop the feel of the amount of arm rotation necessary through impact to square the clubface at impact. After rehearsing the motion, the student

attempts to hit the ball recreating the same feel through impact. To complete the sequence, the student then attempts to create the same impact position while making a full backswing and follow-through. After creating the desired ball flight, the student attempts the fuller motion swings with longer clubs while maintaining the shorter motion swings with the eight-iron.

The “Heel-In Drill” begins with the student addressing an imaginary ball with correct posture and an eight-iron. After swinging the club to waist height in the backswing, the student swings back to an imaginary ball where the heel of the club is ahead of the toe. This exaggerated open clubface position helps the student develop the feel of the amount of arm rotation necessary through impact to square the clubface at impact. After rehearsing the motion, the student attempts to hit the ball, recreating the same feel through impact. To complete the sequence, the student then attempts to create the same impact position while making a full backswing and follow through. After creating the desired ball flight, the student attempts the fuller motion swings with longer clubs while maintaining the shorter motion swings with the eight-iron.

Two Piece Backswing Drill

The “Two Piece Backswing Drill” begins with a teed ball and a six-iron. After addressing the ball with correct posture, the student swings the club back to waist height in the backswing and pauses. At this point, the student notes the position of the club. The toe of the club should be pointing up or slightly favoring the ball side of the shaft, and the shaft should be parallel to the student’s toe line. If this is not the case, the student makes the corrective adjustment and then continues to swing back to a full backswing and hit the ball. Initially, the motion will be somewhat awkward for the student due to the pausing of the swing, but he or she will soon be able to replace this awkwardness with a more fluid motion. The objective of this drill is to help the student create a visual awareness and feel of the correct starting direction of the backswing as well as greater control of the clubface throughout the motion.

Hold The Finish Drill

The “Hold the Finish Drill” begins with a higher lofted club such as a seven- or eight-iron. After addressing the ball with correct posture, the student makes a three-quarter length backswing and hits the ball, stopping the club at waist height in the follow through. At this point, the shaft should be parallel to the target line, the arms fully extended and the toe of the club pointing up. If the student typically has an open clubface at impact, this paused position at waist height in the follow through should be adjusted so that the toe of the club is favoring the left side of the shaft. If the golfer struggles with a closed clubface at impact, the toe of the club at this post impact position should favor the ball side of the shaft. Once the student is comfortable with the motion, length and speed can gradually be added to the backswing with a continued focus on the student hitting that post-impact position described. This drill will help the student develop a greater awareness of the clubface at impact and post-impact position as well as a better feel of his or her arm motion through impact.

Drill with an Aid to Influence Face

Hit the Impact Bag

The “Hit the Impact Bag Drill” begins with the golfer addressing an impact bag with a traditional grip and posture and a mid-iron. From this position, the student swings the club back to waist

height and then back to impact with the bag. At this point, the student should have an opposite clubface position to his/her traditional ball flight. If, for example, the student struggles with hitting slices, the impact position at this point should have the clubface closed. Initial swings are made with a seven-iron and should be relatively short and slow while the student develops the feel of the compensative motion. Once the student is able to reproduce the desired clubface position while impacting the bag, a ball should be positioned between the clubface and the bag with the student attempting to reproduce the desired clubface position at impact. Once the feel of compression is established and the student is able to achieve the desired clubface position at impact against the bag, the student attempts to hit a teed ball recreating the motion. Initially, it is suggested that the drill be attempted with a six-iron with longer clubs introduced once the student is able to control the clubface position at impact. This drill will help the student not only influence clubface position at impact but also help him or her develop an individual feel of proper impact.

Curve the Ball Drill

The “Curve the Ball Drill” begins with the golfer positioning a shaft on the ground to represent the target line and an additional shaft positioned vertically into the ground approximately nine feet in front of the golfer. Depending on the curve tendency of the golfer, this shaft could be positioned slightly to the inside of the target line for students who tend to slice the ball or to the outside of the target line for students who struggle with a hook. Starting with slow swings, the student hits the teed ball with an six-iron attempting to start the ball down the target line and curve the ball around the vertical shaft to the left to overcome a slice or to the right to compensate for the hook. If the ball does not curve enough, the student attempts to exaggerate the closed or open clubface being produced at impact until the ball curves the appropriate amount. Initial swings should be shorter and slower than normal and increase in length and speed as the student is able to shape the shot the desired amount. As confidence and control are gained, the student introduces longer clubs and attempts the drill with the ball off the ground. This drill will help the student develop the feel of how they can influence their clubface position at impact.

Swingyde Drill

The “Swingyde Drill” begins with the golfer positioning the Swingyde training aid on the club and addressing a teed ball with a seven-iron. Utilizing a slightly slower backswing pace than normal, the student attempts to position the Swingyde so that it rests against his or her left forearm when the shaft is shoulder height in the backswing as well as at shoulder height in the follow through. Once the student is able to make the correct motion as prescribed by the aid, he or she attempts to hit the ball. To avoid the time and effort required to take the aid off or to put it on, the student switches to a six-iron when attempting to hit the ball without the aid. Eventually, the student alternates to other longer clubs such as a hybrid, fairway wood and driver while alternating swings with the training. This drill will help the student influence the clubface position at impact but also help the student develop a feel for the correct motion of the arms and body through impact.

Drills to Influence Path

Right Foot Back Drill

The “Right Foot Back Drill” begins with the golfer teeing a ball and gripping a six-iron. From a traditional posture and stance width, the golfer slides the right foot back so that the toes of the right foot are even with the heel of the left foot. This exaggerated closed stance will be used during this drill. Beginning with practice swings over the ball to develop the feel of the motion, the golfer attempts to hit the teed ball with a swing that is slightly slower and easier than standard. Due to the extreme stance, the arms will be required to extend through impact and the path to the ball will be from the inside-out. Once the student becomes comfortable with the motion at the slower speed, he or she increases the speed through impact, gradually increasing the speed to their standard speed. Students should alternate clubs throughout the drill. Because of the exaggerated stance, it’s tough to hit balls off the ground, so it’s best to stick to hitting balls off a tee.

Feet Together Drill

The “Feet Together Drill” is helpful with a student who is unable to produce a neutral downswing path through impact. This drill begins with the golfer teeing a ball and gripping a six-iron. Utilizing a traditional grip and posture, the feet should be positioned so that the heels and toes are touching. This narrow stance will be used throughout this drill. Beginning with practice swings next to the ball, the golfer attempts to make as full a swing as possible while maintaining his or her balance through the swing. Once comfortable with the motion, the student should hit the teed ball. Naturally, the narrowness of the stance will occasionally cause the student to lose balance during the swing due to the incorrect path of the club through impact. Once the student has developed a feel for the motion and is able to make solid contact with the six-iron, longer irons, hybrids, fairway woods and the driver should be attempted.

Pump Drill

The “Pump Drill” begins with the golfer addressing a teed ball with a six-iron. From a traditional set-up position, the golfer swings the club back to the top of the backswing, stopping the motion prior to starting down to impact. From this paused position, the golfer swings his or her arms down to waist height, making sure that the arms and shaft of the club are coming from an inside path to the ball. This “pump” should be repeated twice, with the third motion being continued to impact and to a full finish. The goal with this drill is to help the student develop their individual feel of a proper clubhead path to the ball as well as help them recognize when the clubhead path direction is not correct. Due to the stopping and starting of this motion, it is suggested that the student practice this drill initially with clubs such as mid-irons until comfortable with the motion. Longer shafted clubs can be tried, but the student needs to be warned that, while solid contact is not impossible, it may take a few swings to be achieved.

Drill with an Aid to Influence Path

Miss the Object Drill

The “Miss the Object Drill” practice routine begins with an object such as a head cover positioned to the outside of the target line and slightly behind a teed ball. The student begins with easy and relatively short swings made with a seven-iron, attempting to miss the object while hitting the teed ball. As the student develops the feel of what to do in the downswing to miss the head cover, he or she can gradually increase the length and speed of the motion. Once consistently missing the object, the student attempts the drill with different clubs such as longer

irons, hybrids, fairway woods and the driver while trying to accomplish the same goal of missing the object and swinging the clubhead from an inside-to-out path to the ball. This drill will help the student develop the individual feel of a more in-to-out downswing path. In addition, if the student hits the object, he or she learns to recognize the feel of the incorrect motion. If the student tends to swing too much from the inside, the object should be placed slightly ahead of the ball, just outside the target line. In this case, the path will not be able to travel from such an in-to-out path to the ball and must be more neutral.

Swing Over the Shaft Drill

The “Swing Over the Shaft Drill” is typically used to combat the more common out-to-in clubhead path through impact. Initially, this practice routine begins with the student placing a shaft on the ground to represent the target line. A common tool to use is the fiberglass rods sold at local hardware stores. If this product is not available, the student can supplement string connected by two tees in its place. Utilizing a six-iron and a teed ball placed next to the shaft, the student should address the ball with proper posture. Starting with short swings, the student attempts to swing the clubhead on a path through impact that has the clubhead traveling out over the shaft after contact with the ball is made. Along with monitoring the initial starting direction of the ball, the student should also note the divot direction produced by the downswing path. Once the student becomes comfortable with the motion, the swings are increased in length and speed with other clubs introduced as well as shots hit off the ground. This drill will help the student develop their individual feel for the motion required to change the clubhead path through impact.

Starting Direction Drill

This “Starting Direction Drill” is one that can help a student redirect an incorrect clubhead path through impact. This practice routine begins with the student placing a shaft on the ground to represent the target line and a teed ball placed just to the inside of the target line. A second shaft is positioned vertically into the ground approximately nine feet in front of the golfer on the target line. Next, the student hits five to ten shots with a six-iron, determining the relationship of the initial starting direction to the vertical shaft. If the ball tends to start to the left of the shaft, the student attempts to swing to the right through impact and start the ball to the right of the shaft. If the ball tends to start to the right of the shaft, the student attempts to swing to the left through impact and start the ball to the left of the shaft. By initially utilizing a shorter and slower backswing, the student will quickly overcome the downswing path tendency and in a short period of time hit the vertical shaft. Once the student is able to start the ball in the opposite direction of the initial shots, he or she should increase the length and speed of the swing as well as introduce different clubs and the ball hit off the ground. This drill will help the student influence the downswing path and help develop an awareness of the starting direction of the ball.

Chipping Drills

Right Heel Up Drill

After addressing the ball with correct fundamentals for the chip shot, the student should position his or her right foot with the heel up and the toe of the shoe in contact with the ground. This adjusted set-up is followed by the student hitting shots with different clubs, varying the length the ball rolls. This drill is helpful in eliminating extra hand action during the chip shot and developing the feel of solid and consistent contact with the ball.

Hold the Finish Drill

This drill highlights the finish position of the swing and will help the golfer create the appropriate amount of extension through impact as well as help in the elimination of excess wrist action at impact. After addressing the ball with the correct chip shot set-up, the golfer should make a swing and hold the finish of the motion. After impact, both the left arm and right arm and shaft should be extended with the position held for three or four seconds.

Chipping Drills with an Aid

Tee in Ground Drill

This drill begins with the student positioning a tee four inches in front of the ball on the target line. After taking a proper address position to the ball, the student should swing the club back and through, brushing the grass beneath the ball and also hitting the tee in front of the ball. This drill will help the golfer ensure solid and consistent contact with the ball.

Miss the Tee Drill

The drill begins with the student positioning one tee to the outside of the ball and one tee to the inside of the ball. Using the suggested chip shot set up, the golfer should attempt to swing the clubhead back and through without hitting the tees. This drill will assist the student in making solid and consistent contact with the ball.

Extended Club Drill

This training aid highlights the use of the golfer's 9-iron or pitching wedge and either a broken shaft or wooden dowel extending from the butt end of the club. From a proper chip-shot set-up, the student should attempt to hit a ball making sure that the extension does not hit their side after impact. Contact with the body will indicate that there is too much wrist action through impact.

Pitching Drills

Feet Together Drill

After addressing the ball with correct posture for the pitch shot, the golfer should position his or her feet together. From this adjusted set-up, the golfer hits shots, attempting to maintain balance as well as distance control. Initially, shots hit might be thin but, after a few swings, the golfer will become comfortable with the motion and be able to make solid contact. This drill will help minimize the amount of body motion as well as the feel of the correct mechanic of the motion.

Two Piece Backswing Drill

This drill begins with the golfer addressing the ball with a proper pitch shot set up. From this position, the golfer should swing the club back to waist height in the backswing, where the shaft of the club is parallel to the ground and the toe of the club points up. After visually verifying this correct position, the club should be swung slightly further back and then the ball should be hit. This type of stop-and-go motion will initially be awkward but will quickly become more comfortable.

Toe-Up To Toe-Up Drill

This drill has the golfer place the emphasis of the motion in two places. The golfer first swings back to waist height, checking that the toe of the club is pointing up while the club is parallel to the ground. Then the golfer swings the club through impact, hitting the ball and attempting to

stop the club at waist height in the finish; again, the shaft is parallel to the ground and the toe of the club points up.

Pitching Drills with an Aids

Hit the Tee Drill

This drill begins with the golfer positioning a tee four inches in front of the ball on the target line. After taking a proper address position for a pitch shot, the club is swung back and through, brushing the grass beneath the ball and also hitting the tee in front of the ball. This drill will help the student eliminate any unnecessary wrist or hand action being used to help lift the ball in the air.

Miss the Tee Drill

This training drill begins with the golfer positioning one tee on the outside of the ball and then another tee to the inside of the ball. The width of space between the tees should be slightly wider than the width of the clubhead. After addressing the ball with a proper pitch shot set-up, the golfer should attempt to hit the ball while avoiding the outside and inside tees. If one of the tees is contacted, the student should replace the tee and attempt the motion, again attempting to avoid the tees.

Swingyde Drill

This routine begins with the *Swingyde* being attached to either a sand wedge or lob wedge. Initially, a practice swing should be made with the goal of making contact with the student's lead arm in the backswing and through swing. Next, the student should attempt to hit a ball with the training aid, attempting to maintain proper contact between the aid and the lead arm. Third, the student should make the motion without the training aid attached, attempting to recreate the motion made in the first two swings. This training aid is effective in helping the student create the proper amount of wrist hinge and square clubface during the motion.

Bunker Play Drills

Line Drill

This drill begins by addressing a pre-drawn line running perpendicular to the target line. After addressing an imaginary ball (represented by the perpendicular line) directly between the feet and with proper fundamentals for a bunker shot, the student should take practice swings, making sure sand is taken. After making multiple swings, the golfer should determine first that there is a consistent bottom to the swing as well as where the club tends to enter the sand and exit. The middle point between these two marks will determine the ideal ball position for the student. In addition, this drill is very helpful in helping the golfer develop confidence in the motion.

Two-Ball/Three-Ball Drill

This drill begins with the student placing two balls in the bunker that are touching each other and are on the target line. The student should address the balls with a proper bunker shot set-up and attempt to displace enough sand under the two balls so that both are lifted out of the bunker. When both balls are consistently displaced, the golfer should attempt the drill with three balls.

Splash Drill

This drill begins with the golfer addressing an imaginary ball with proper bunker shot set-up. Using the correct fundamentals for the bunker shot, the student should make full swings,

attempting to lift a dollar bill size amount of sand out of the bunker. The key is that the divot created when the clubhead hits the sand is lifted up and out of the bunker on each swing. This drill will help the golfer develop confidence in his or her ability to control the bottom of the swing as well as develop the feel for the amount of motion needed to carry the ball out of the bunker.

Bunker Drills with an Aids

Rope Practice

This drill begins by the student positioning a small segment of string in a six-foot circle around a practice green pin. From different positions and distances, bunker shots should be hit using proper fundamentals and mechanics. With each ball, the student should attempt to keep the ball within the confines of the circle. This routine will help the golfer develop a greater feel for the amount and speed of swing necessary to carry the ball the appropriate distance and will help in the development confidence for getting the ball close to the hole.

Tee Drill

This drill begins with the golfer using two tees in place of the golf ball in a green side bunker. After addressing the ball with proper set-up, the golfer should swing the club back and through, attempting to hit both tees out of the bunker. This drill will help demonstrate how sand lifts the ball up and out of the bunker as well as help the individual gain confidence in the motion and the necessary sand needed to displace the ball from the bunker.

Hit the Board Drill

This drill begins with the golfer placing a 2x4 in the sand and placing a small amount of sand on top of the wood. After addressing the ball with the suggested greenside bunker set-up, the golfer should attempt to make a swing that lightly brushes the sand off the board. Initial swings should be relatively short and easy with more length and speed gradually being added while maintaining the “brushing” impact with the board. This drill will help the student develop a feeling for where the bottom of the swing is as well as the amount of swing necessary to lift the ball out of the bunker.

Putting Drills

Ladder Drill

The object of this drill is to help the student develop a feel for distance. First, the golfer should place five balls on the putting green. The first ball is to be putted a distance of five feet, the second ball is to be putted a distance of ten feet, and so forth. This process should be continued with the remaining balls spaced five feet apart. A by-product of this drill will be a better feel for the relationship of distance to the amount of swing by the golfer.

Eyes Closed Drill

This drill begins with the golfer finding a level section of the green. From this position, the first ball should be putted a random distance with the golfer estimating the distance the ball rolled and the amount of stroke utilized with the stroke. At this point, a second ball is putted, attempting to mimic the original stroke in length and speed of motion. The twist is that, with this putt, the golfer’s eyes are closed. The cycle of two putts should be repeated until the student is capable of putting the second ball an equal distance to the first ball. At that point, a different distance with

the first ball can be attempted. This drill will help the student develop the feel of the motion required to putt the ball specific distances.

Ladder Drill with a Twist

This drill begins with the golfer pacing different distances away from the cup in five foot intervals up to a distance of 25 feet. First, starting at the shorter distance, the student should work his or her way away from the hole to the longer distance, trying to two-putt each ball. Next, the student follows the same procedure but, in this case, he or she should start at the furthest distance, working to the shortest distance. Last, the student should follow the routine of trying to two-putt each situation in a random order.

Putting Drills with an Aid

Club Behind Cup

This routine begins with the placement of a shaft perpendicular to the target line, 18 inches behind the hole. The goal is for the student to attempt putts from various distances that have enough speed to either go in the cup or past the hole without hitting the shaft. The initial distance should be from ten feet. Once control over the speed of the putt is maintained, the student should attempt the drill from a greater distance.

Through the Gate Putt

This drill begins with the golfer positioning two tees six inches apart. From an initial distance of three feet, the golfer should attempt to putt the ball through the tees. Once this is accomplished, the student should move further away from the tees in increments of three feet and continue the process, attempting to putt the ball through the tees. When the student shows consistency in his or her ability to putt the ball through the tees from various distances, the tees should be placed closer together in one-inch increments.

Tee to Tee

This drill begins with the golfer positioning a tee in the ground on a relatively level area of the practice green and a second tee approximately ten feet away. Initially, the golfer should putt multiple times back and forth, from one tee to the other attempting to hit the opposite tee. Once successful with hitting the opposite tee, the golfer should move the practice station to an area of the green with there is a greater degree of break to the putts. Variations of this practice would have the student increasing the distance between tees as well as the degree of slope to the putt.

Sport Teaching/Technique

The reason a lot of people never learn to play the game is because it is difficult to learn. One way of simplifying the learning process is to simplify the full-swing movement. Building upon the Player Level technique is an easy leap to make for a young mind. In Player technique, our physical movement was using the shoulders as both the power source and directional control. The power you create with your shoulders is limited. You can use your shoulders up to a certain

distance. At that point, we need to access our main power source, which is rotation of the torso. Your shoulders move up and down like a putting/chipping movement and your body turns in a circle. This is a minimalist's view of the full swing, and it is an easy way to teach beginning junior golfers.

Sport Teaching Philosophy

The mind of an adolescent is active and receptive to new activities. It's important to include them in the learning process. A fun way to challenge them and also assess their knowledge of the swing is the "Ask Game."

Instead of offering analysis after your junior golfer hits a shot, turn the tables and *ask them* to self-analyze. For example, a student hits a slice and turns to you and asks why that happened.

"What do *you* think?" you reply.

They may start by answering, "My clubface was open." Your response would be, "Why was the face open?"

Your student might reply, "Maybe I slid forward through impact, and the club never had an opportunity to turn over."

You follow with, "Why do you think you slid forward?"

"Because I slid on the backswing and never turned or coiled," the youngster replies.

The process of thinking it through will help the junior take control of his own game and help him solve other similar swing issues during the course of play. This kind of lesson drill for young players will stimulate their intellect and empower them to try to fix their own mistakes.

You may also have noticed that at the end of the "Ask Game" the primary issue is always related to how power is created. In this example, the student was moving laterally back and forth through the swing. This momentum shift may feel like power to your student but lack the true rotation power that can be produced in the full swing. PGA Professionals have a great ability to teach scoring. Unfortunately, most PGA Professionals are tied up on the lesson tee teaching the full swing. When your students understand and simplify their swing, it will allow you to take them to the next level in a shorter time period.

Near Golf Experiences

Golf skills should be experienced, taught and practiced in ways and under conditions that make golf a pleasurable experience. Juniors learn through playing where they have the opportunity to explore and experiment with golf skill movements. These "Near Golf" games help create this vibrant learning environment for youngsters.

Scramble

All team members tee off on each hole and then decide which tee shot they like the best and mark the spot with a tee or ball marker.

- The other team members pick up their balls and place them within one club length (no closer to the hole) of the marked spot. Each team member hits their next shot from the chosen spot of the prior shot.
- The same procedure is followed on every shot for the remainder of the hole, including putts.
- The first ball to go in the hole is counted for the team score.
- If the ball you choose to play is in a hazard (sand, water, etc.), rough or other condition, you can't drop the ball outside of the hazard, rough or other condition even if relief is one club length away.

Putting Course

Create your own putting course on the putting green using golf tees and string.

- Create an outline around a practice hole on the putting green by using the string and securing it by wrapping the string around a golf tee and then pushing the entire tee into the putting green so that only the top of tee and string can be seen.
- Designate a par for each hole based on its difficulty and length.
- Make a tee box for each hole using golf tees.
- Putt from the tee box to the hole.
- Any putt that goes outside the strings is considered out of bounds; take a one stroke penalty and putt again from the previous spot.
- Try to shoot even par or better.

Hit, Kick, Throw and Putt

Youngsters enjoy this game that combines elements of baseball, soccer and golf into one exercise.

- Begin by setting a tee used in the baseball-like game of T-ball at the beginning of the hole; hit the "tee shot" by hitting a baseball with a bat toward the green.
- Replace the baseball in the fairway with a soccer ball and then kick it toward the green.
- Replace the soccer ball with a golf ball and now throw or toss the ball towards the green until it lands on the putting surface.
- Now putt the ball in normal golf fashion until it falls into the hole.
- Add up the hits, kicks, throws and putts each hole for your score.

Swings and Throws

- Each player may swing or throw the golf ball at any time;
- The maximum number of times that a golf ball can be thrown on each hole is twice;
- Add up your swings and throws each hole for your score.

Pitch, Pass and Putt

Pitch, Pass and Putt is a fun Near Golf Experience game that relates to other sporting skills challenges and also helps transition the throwing motion to the chipping motion.

- This game starts off the green. The junior will have the option to pitch or pass the ball, depending on their preference.
- During this nine-hole competition, they will have five passes available to use.
- Once the ball is on the green, the junior will then putt to finish the hole.
- Add up your swings, putts and passes each hole for your score.

Speed Golf

- This game starts by deciding how many holes your juniors can complete. It is recommended at this level that they play 3 holes.
- Start at the forward tee.
- As soon as the first ball is struck, the time starts.
- During play, the ball must be holed and no ball can be hit while moving.
- To keep score, the minutes are added to the number of strokes to get a final score for each hole.
- Allow for time between each hole for rest.

Glow Ball

Glow ball or night golf is a great way to have fun and not worry about taking up extra tee times at your golf course. You can utilize most any format and include the entire family! There is an art to setting up a glow ball course. It is suggested that you use the forward tees and light all hazards.

Hybrid Golf

Hybrid golf is a general way of explaining any variation of using standard golf equipment.

- This game consists of playing 6 holes
- Have your junior golfers use a tennis racket or a baseball bat to “tee” off with
- During the play of each hole, they are allowed to throw the ball one time
- This game can be modified for the skill level of the junior golfer

Play with Golf Professional

Play a scramble with your junior golfers. This format will allow them to imitate your on course preparation and movements. It is also a great way to play you on an equal level. You can play your own ball against several of your junior golfers.

Drawing and Creating a Golf Course

Drawing and creating a golf course appeals to child’s sense of creativity. This can be a great indoor activity, especially during inclement weather. Ask your junior golfers to get creative with their designs, such a golf course in big cities or in outer space.

Ping Pong

Ping-Pong helps promote hand-eye coordination. It is a great activity to utilize in down time or during inclement weather. It also gives the participants another sport to look forward to and be competitive with.

Golf Baseball

- Golf baseball is played in any open area using a tennis ball on a range mat propelled by a golf club.
- You can use range bags or plastic range baskets as bases.
- You can modify these rules and structure based on the skill level of your junior golfers.

Golf Video Games

If you can't beat them, join them. Golf video games are a great way to keep golf on your junior's minds. By playing video games they will get an understanding of how to create different ball flights and shots around the course. This is another alternative during inclement weather.

Playing Golf on the PGA Family Course

Continue playing golf by creating a PGA Family Course using the suggested yardage listed below based on each individual's age and ability. You can create a PGA Family Course that is short and beginner-friendly within your existing facility by using PGA Family tee markers or your own facility's tee markers.

Player Suggested PGA Family Course Yardage

1,900 maximum yards for nine holes

Par 3s: 75-115 yards

Par 4s: 185-245 yards

Par 5s: 285-345 yards

2,500 maximum yards for nine holes

Par 3s: 115-210 yards

Par 4s: 211 to 400 yards

Par 5s: 401 to 575 yards

More advanced juniors can begin playing golf using the forward tee markers at your golf facility based on your recommendation.

Suggested Advanced Yardages

Minimum 1,000 yards—Nine-hole course, par-3 layout.

Length: 4,500 to 5,700 yards (18-hole course) for males;

3,000 to 5,000 yards (18-hole course) for females.

Skills Challenges

Skill Challenges are meant to assess the progress of each junior in an interactive, interesting and challenging way. It's a good idea for the instructor to take part in the Skills Challenge, not only to monitor the progress of the students but also share in the friendly competition. The juniors also get a chance to learn the risk-reward consequences of their decisions. The Skills Challenge should be the most enjoyable feature of the PGA Sports Academy. During Skills Challenges, each junior is given bonus points if he hands in a correct scorecard. This process not only works on the junior's golf skills but also helps them practice their adding, subtracting and measuring skills.

Pitch Shots

- Practice 10-yard pitch shots; your score is the total feet from the hole that your balls come to rest.
- Practice 20-yard pitch shots trying to land within two driver lengths of the hole.
- Practice 30-yard pitch shots trying to land within three driver lengths of the hole.

Bunker Shots

- Make swings in the bunker with no ball, trying only to splash the sand so that the sand goes towards your target.
- Draw a line in the bunker and see if you can contact the sand at the line and splash the sand forward towards your target.
- Draw a line and place a ball one inch left of the line from your address position and try to contact the sand at the line, splashing it forward.
- Place a ball in the bunker and try to get the ball out by splashing the sand without the line.

Long Putting

- Practice 20-foot putts, trying to make them or have them finish one putter length past the hole.
- Practice 30-foot putts, trying to make them or have them finish one putter length past the hole.
- Practice 40-foot putts, trying to make them or have them finish one putter length past the hole.

Putting with Breaks

- Find a 15-20 foot putt that breaks.
- Place a tee alongside the hole, to the right or left of where you need to aim the ball.
- Move the tee back to where the putt starts to break and try to hit the tee.
- Take away the tee and try to make the putt, being sure that if the ball doesn't go in the hole you are at least one putter length away from the hole.

Sport Level

The Short Game Skills Challenge & Assessments

Rules of the game:

Each player will have 5 chances at putting, chipping and pitching. He may pick whatever distance he prefers under the rules of the game. If the shot is holed then the player receives a bonus of half the distance of the shot added to the full distance of the shot in feet. For example Kirk's first chip was 28 feet. He hit it 4ft from the hole. Kirk then subtracts 4 from 28 and received 22 points for that shot. The player may never pick the same distance twice. If the player completes a correct scorecard that player is awarded another 5 points to his overall total. Below is a scorecard example:

Five (5) Flick shots – From 60 Ft. and under
Five (5) Chip shots – From 30 Ft. and under
Five (5) Putts No Longer than 10, 20, 30, 40, 50 per try

Full Swing Skills Challenge & Self-Assessment

Rules of the game:

Each player will have 5 iron target shots. Depending on the length of shot he will be able to risk as many points as he is comfortable with. Set the green target up with 2 circles 60 yards away from the teeing area. The outer circle will be 30ft in diameter and the inner circle will be 15 feet in diameter. Set a second green target the same at 100 yards away. For every 10 yardages of the yard contested the player will have 1 yard to bid toward each yard. If the player hits his shot outside the 45 feet diameter he loses the total of his bid. If he hits it within the 45 yard circle he earns his bid amount. If he hits within the 30 ft diameter he earns double his bid amount and if he hits inside the 15 diameter he earns three times the amount of his bid. The same formula is used for the target 100 yards away.

For example:

If the target was 40 yards away from the tee, the player would have four points available to use for bidding, for each shot. So if a player was hitting a 40 yard shot and he was bidding 4 and he hit it within 30 feet his points would be doubled. If the player misses the target completely he loses half of what he bid on that shot. For example, if you bid 4 and missed the green completely he would score a 2.

Full Swing Driving Accuracy Challenge

Rules of the game:

Each player will have 5 driving accuracy tee shots (Any club can be used). Fairway width should be determined by the player group level. Suggested width for Player Level is 40 yards, for Sport Level 35 yards and Champ Level 30 yards. Points are awarded on both their accuracy and length. If player hits within the fairway width they receive 1 point for every 10 yards their ball travels. Flags can be used to designate every 10 yards or PGA Professional can use a rangefinder to accurately determine length. No points are awarded if player hits outside the designated fairway.

PGA Professionals are encouraged to participate and compete against their juniors!

PGA Sports Academy Skills Challenge

The Short Game												Full Swing		Driving Accuracy		Totals
Player	Pitch shots 50ft or under			Chip shots 30ft or under			Putts 30,20,16,10,2 Ft			Short Game Total	Iron Target Shots		Driver Accuracy Shots		Correct Scorecard add 5 pt Bonus	
	Kirk	Start (Feet)	Feet From Hole	Score	Start (Feet)	Feet From Hole	Score	Start (Feet)	Feet From Hole		Score	No pts outside 45 ft double bid within 30ft triple bid within 15ft	Iron Shot Total	No points outside fairway 1pt for every 10 yds within fairway		Driver Totals
1st																
2nd																
3rd																
4th																
5th																
Sub Total			Sub Total			Sub Total			Sub Total			Full Swing Total		Driver Total		Total

Player Signature: _____

PGA Prof. Signature: _____

Date: ___/___/___

(The following passages on rules, sportsmanship and etiquette can be copied and provided to students to help develop their foundation in golf.)

Sportsmanship, Rules and Etiquette

Rules

- The two forms of play in golf are Match Play and Stroke Play.
 - Match Play is when each hole is a separate contest. The player that has the lowest score on each hole wins that hole. The player that wins the most holes wins the match.
 - Stroke Play is when the total number of strokes taken for each hole is added up for a score. The player with the lowest score for all of the holes is the winner.
- You must play the ball as it lies. You may not move it to another spot unless the rules allow.
- You have five minutes after you first begin your search to find your golf ball before it is declared lost.

Etiquette

- Before you play a round of golf, you need to call or stop by the golf shop for a tee time. A tee time is a scheduled time that you can start playing a round of golf. You should always arrive at least five minutes before your tee time so that you are ready to begin play on time.
- Each golfer should mark their golf ball with a pen or marker before they play so that they don't hit the wrong ball during play.
- Always rake the bunker after you play a shot from it.
- Write down your scores on the way to the next hole, not while still on the green you are leaving.

When you hit a ball out of play it is called out-of-bounds. A ball is out-of-bounds when all of it lies beyond the inside line of objects such as white stakes, a fence or a wall that marks the playing area.

- If your ball is lost or out-of-bounds, you must add a penalty stroke to your score and play another ball from where you played your last shot.
- If you think your ball may be lost or out-of-bounds, you may play another ball from the place where your first ball was played after you announce that you are playing a provisional ball.
- A hazard is any bunker (area of sand) or water hazard (lake, pond, creek or other body of water) that is on the golf course.
- In a hazard, you may not touch the sand, ground or water with the club before or during your backswing.
- In a hazard, you may not remove natural things such as leaves or twigs but you may remove rakes or other man-made items.
- If any part of your golf ball is touching the green, then your ball is on the green.

- Always mark your ball on the green by putting a small coin or other marker behind the ball. You should mark your ball when:
 - You want to clean the ball, or;
 - Your ball is in the way of another player's putt.
- When you are on the putting green you should remove the flagstick before a golf ball hits it. There is a two-stroke penalty if the flagstick is hit during a putt on the green.

Pace of Play

- When you are playing slowly, or looking for a lost ball, ask the group behind you to go ahead and “play through” so that you don't slow everyone down.

Sportsmanship, Rules and Etiquette Assessment

Answer the following 10 questions. The answer will be either TRUE or FALSE. Each question is worth 1 point.

1. Before you arrive at the golf course it is best to call or stop by the golf shop to schedule a tee time.
2. Stroke play is the only form of play in golf.
3. It is okay to move the ball if it is in deep grass or a bunker.
4. You have 10 minutes to search for a golf ball before it is considered lost.
5. If you think your ball is lost you can announce that you are playing a replacement ball.
6. A bunker is a hazard.
7. You are allowed to remove rocks or stones from bunkers without penalty.
8. A golf ball is on the green when the entire golf ball touches the green.
9. Always mark your golf ball on the green with a small coin or other marker.
10. There is no penalty if you hit the flagstick when putting on the green.

Sport Level Evaluations

PGA Sports Academy Student Weekly Evaluation Report							
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Fitness & Nutrition							
Nutrition							
Golf Skills							
Sportmanship							
Etiquette							
Rules							
Safety							
Golf & "Near Golf" Experiences							
Golf & Physical Assessments							
Attitude/Behavior							

Professional Signature: _____

Student Signature: _____

**A player needs to score a Gold to move onto the next level. The player will have 5 attempts.
2 Bronze = 1 Silver and 3 Bronze = Gold**

PGA Sports Academy Student Weekly Evaluation Report									
	Player Level			Sport Level			Champion Level		
	Bronze	Silver	Gold	Bronze	Silver	Gold	Bronze	Silver	Gold
Fitness & Nutrition									
Nutrition									
Golf Skills									
Sportmanship, Etiquette, Rules and Safety									
Etiquette									
Rules									
Safety									
Golf & "Near Golf" Experiences									

Golf & Physical Assessments									
Attitude/Behavior									

Professional Signature: _____

Student Signature: _____

Evaluations

PGA Sports Academy Self-Evaluation Report			
	Fair	Good	Excellent
Fitness & Nutrition			
Nutrition			
Sportmanship			
Etiquette			
Rules			
Safety			
Golf & "Near Golf" Experiences			
Golf & Physical Assessments			
Attitude/Behavior			
Golf Skills			
Putting			
Chipping			
Irons			
Driver			

Professional Signature: _____

Student Signature: _____

Fitness and Nutrition

Junior Development

Childhood development is important to create the motor pathways for adults. These can be classified as windows of opportunity. The first window of opportunity for preventing or correcting physical imperfections is in early childhood, when the child first starts discovering and learning how to move. At approximately two to three months of age, the child may just be rolling from chest to back, but the neural pathways for movement are beginning to form. The next locomotive pathway formed during child development is crawling. The child formulates a system of trials to move from point A to point B. This is the formation of the “true” cross-crawl pattern, as the child’s right arm extends and the left leg extends (the cross-crawl pattern is discussed further later in this lesson). During this crawling action, the child’s abdominal and lower back muscles are forced to stabilize the trunk and assist movement. Theories suggest that this proper crawling pattern is necessary for proper muscular development, and bypassing the crawling stage (that is, progressing directly to walking) eventually delays motor development and creates an inefficient walking pattern.

As children start to move into vertical positions (by holding, pulling, or climbing) and eventually begin walking, they continue to use the cross-crawl patterns of movement. These movement patterns are ingrained in the nervous system and improved throughout the child’s growth and development.

The majority of these progressions are mainly left up to the parents or in many cases the child themselves. The parents need to help encourage and assist the development of the individual through many stages of development. A child who is mainly confined to a car seat or bouncer seat does not roll and crawl around the floor and delays early development. This is a concern for golf professionals as you work with juniors of all ages. The developmental delay may not be noticed until they are around eight to ten years old.

Long Term Athletic Development Model

As the child grows and matures, he or she should perform physical activities on a daily basis. Parents often ask what the best age is for children to start participating in sports or organized physical activity, how often they should participate, and how long the activity should be performed each day. The answers to these questions are summed up in the Long Term Athletic Development model designed by Istvan Balyi. The model centers on the Ten Year Rule and the building of fundamental movement skills.

The Ten Year Rule was created by Anders Ericsson and George Herbert Simon and asserts that, “It takes ten years to excel in any activity.” This is evident in most Olympic athletes, where the amount of time athletes must participate in their sport in order to excel has been between 12 to 14 years.

Fundamental movement skills were first proposed by Dr. Vern Seefeldt from Michigan State University and validated through later research. Seefeldt’s research says that children must complete a level of competency in certain fundamental movement skills if they are to break

through a hypothetical proficiency barrier and successfully engage in sport specific skills later in life. The fundamental movements are an essential component of the long term athletic development and are an entire stage of development (stage II).

There are seven stages in the Long Term Athletic Development model:

1. **Active Start** (ages 0-6)—Primary movement development. Cross-crawl patterns of movement and development. Main focus is keeping active, rolling, crawling, walking, climbing, playground activities.
2. **Active FUNDamentals** (ages 6-9)— Focus on gross motor movements, walking, running, hopping, skipping, jumping, kicking, throwing, catching, striking, skating, skiing, learning by discovery. Speed window, athletic movements, general overall development, locomotion, stability, manipulation, awareness.
3. **Learning to Train** (ages 9-12)—Skill development, transition from fundamental movement skills to fundamental sport skills, participation in multiple sports, patterns of movement, 80 percent training, 20 percent competition.
4. **Training to Train** (ages 11-16)—Speed window, major fitness development stage.
5. **Training to Compete** (ages 15-18)—Sport-specific training, continued fitness development, increased number of competitions.
6. **Training to Win** (ages 18+)—Focus on high performance, year-round training, plan for peaking.
7. **Active for Life**—Better opportunity if physical literacy is achieved before age 15.

Each stage requires that the child achieve a proficiency of movement before he or she can progress to the next stage. In order for the child to achieve his or her full potential, he or she must master the fundamental movement skills associated with each stage. The mastery of the fundamental skills creates the neural paths for future skill development; if the fundamental skills are missed, then the neural path has to be created to learn the new skill. This new skill must be stronger than any old habits, and numerous repetitions are required in order for the new habit to become subconscious. Therefore, a junior who is well versed in golf swing mechanics, but is limited in fundamental motor skills, will not be able to learn new general athletic skills as quickly as an athlete who has achieved proficiency at each level.

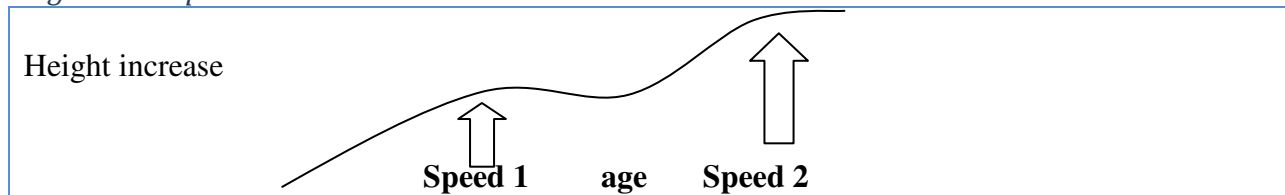
The ages attached to each stage are meant to give instructors a general guideline and could vary by as much as two years in either direction. Because individuals grow at different rates or are born at different times in a calendar year, instructors should base breakdowns of students' abilities on biological development, not chronological criteria.

For example, consider two juniors named John and Steve. John was born on January 3, 2000, and Steve was born on December 3 of the same year, and is also a late bloomer. Grouping these students chronologically would place them in the same event, even though Steve could be as much as two years behind John developmentally. Steve's participation in sports in general could be affected negatively because he is usually picked last for teams, is viewed as inferior by the other students, and could get frustrated with the activity. In reality, if grouped according to fundamental movement skills, Steve could excel in two to three years, and the goal of junior development is to help students achieve excellence at later ages.

Growth Phases

In addition to assessing the student's physical competency when determining the student's phase of development, teachers should also attempt to determine the student's growth phases. Knowing where a student's growth spurts (also called peak height velocity curves) occur help teachers identify proper windows of opportunity, or **speed windows**, to help the student develop. The speed windows occur in the FUNdamental phase and the Training to Train phase, when growth has slowed and nerves and muscles are creating the framework for the student's future development. This window is an illustration of a growth phase and when to incorporate speed training.

Figure 3.x: Speed Windows



Stamina, skill, and suppleness should be emphasized in developmental training while the child is growing rapidly, while speed and strength should be emphasized when a leveling of growth occurs. However, a problem with this theory is that it is difficult to determine when a growth spurt as occurred until after the spurt has finished. Therefore, the ideal training program should incorporate speed, strength, power, mobility, flexibility, and year-round participation in multiple sports.

Think of the junior player as clay to be molded, as they are developing the neural pathways necessary to become excellent athletes. Early specialization creates imbalances and specific muscle movement patterns; the student will perform the trained movement pattern very well but will have a hard time varying from that specific pattern. The more activities the student learns and develops, the wider the variety of movements they can perform at a later age.

Junior Physical Evaluations

There are a variety of performance evaluations that can be used to determine a junior player's physical ability. In order to determine physical ability, the instructor must first determine motor skill ability. Testing the junior player on throwing, striking, running, hopping, skipping, jumping, kicking, and even swimming and bicycle riding is valid, as these are activities most young players should be proficient in by early adolescence. As a junior player grows older, these skills need to be incorporated in order to ensure proper motor skill continuation throughout growth.

Early in the training process, the instructor should have the junior player respond to a questionnaire concerning the student's goals and objectives. At this stage, it must be determined whether it is actually the student's ambition to play golf (as opposed to someone else's ambition, such as his or her parents), as well as how many sports the student participates in. At about age 12, juniors tend to start to determine their sport of choice, as well as whether they are going to be competitive or recreational in that sport. Specialization should not occur until later in the teenage years.

Junior Performance Tests

Evaluating juniors throughout their growth and development helps ensure proper skill progression throughout their golf careers. The instructor can either set up specific motor skill test days or incorporate motor skill training activities into the golf program.

All the testing and exercise activities should have an accuracy and distance component for throwing, striking and kicking. Multiple activities incorporating a variety of implements should also be utilized for a well-rounded athletic development program. Skipping, hopping, swimming and bicycle riding should be evaluated based on movement patterns. The arm and leg cross-crawl pattern of movement is the main criteria for evaluation. Does the student create proper movement with the activities? Does he or she have good body control during skipping, cycling, hopping, and swimming? Does the motion look fluid, or is the student struggling with the activity? These are the questions that need to be answered while watching the movements. The following are several important, fundamental tests for performance that can be used for evaluating junior players:

- **Skipping**—Set up an area about 20 yards wide and ask the student to skip across the area. Evaluate the student's arm-leg action, body control, and skipping action.
- **Hopping**—Set up an area 10-15 yards wide and ask the student to hop across. Evaluate the student's body control, hopping action, arm action, and overall body position during the movement. Do they lose body control while hopping, for example falling forward?
- **Throwing**—Have the student throw a baseball, golf ball, football, and/or big ball for distance and accuracy. Evaluate the cross-crawl pattern of movement. Does he or she throw with the right arm and step with the left leg? Is the upper body rotating to the throwing side during the cocking phase of the throw, and do they follow through after releasing the ball?
- **Kicking**—Have the student kick a football, soccer ball, and/or big ball for distance and also for accuracy. Evaluate cross-crawl movement pattern. Does he or she kick with the right leg and swing the left arm? Does the upper body rotate during the motion?
- **Swimming and Cycling**—These tests may simply involve asking the student if he or she can swim or cycle unaided. Has the student taken swim lessons? Swimming is a large coordinated motor skill, meaning one's extremities are working in sequence to transport oneself through the water. Can the student pedal a bike and maintain balance? Cycling determines balance and control during an activity.
- **Abdominal Stability**—Have the student maintain a front pillar position (Figure 3-1) for as long as possible. The older the individual, the longer he or she should be able to keep the hips in line with the shoulders. The player should be able to maintain this position for at least 30 seconds. The maximum time for this test is 120 seconds.

Figure 3-1: Abdominal Stability



- **Balance Test**—This is a single-leg stance test. Have the individual stand on one leg, placing the other foot on the inner thigh of the leg he or she is standing on. The student should maintain this pose for up to 120 seconds. Also try this same pose with the eyes closed.
- **Standing Long Jump**—Mark a line on the ground, and have the student stand behind the line and jump forward as far as he or she can. To determine the distance jumped, measure from the start line to the heel of the foot that landed closest to the line.
- **Push-Ups**—Have the student lie on the ground with his or her hands placed on the ground, shoulder width apart at chest height, feet together, and toes on the ground. Place a towel or six-inch block under the student's chest. Have the student press up so his or her arms are straight and his or her back is flat, with hips in line with the shoulders. Once the student is at the top, he or she should lower back down, bending at the arms until the chest touches the towel or block, and then rise back up. Repeat until the student can no longer touch the block or press back up. Count the number of completed push-ups.
- **Modified Endurance Test**—The modified endurance test is for determining overall fitness levels. Juniors who are seven years old and younger will run 400 yards and kids who are eight and older will run 800 yards. Use a stopwatch and time the students as they run the total distance.

The abdominal stability, balance, standing long jump, push-up and modified endurance tests are performance tests to determine power, strength and muscular endurance. The numbers and times recorded during these tests should improve with training and sport participation. As the test scores progress, overall golf performance will improve as well.

Designing a Training Program

A proper program progression is critical for a student's continual motor skill and sport skill development. The main components of a physical training program are strength, speed, power, mobility, flexibility, stability, nutrition and recovery.

Components of a Physical Training Program

Strength refers to the increase in one's muscular size and ability to lift or hold more weight. Force times distance equals work. If one increases the amount of work being performed, that

increases the amount of strength being generated. Gravity is the resistance that creates the increase in work. An increase of strength allows for an increase in speed and power development. **Speed** and **power** are interchangeable terms that refer to the ability to move an object rapidly. Golf is a game of speed. Individuals need to learn how to train quickly and under control in order to create a greater swing speed. Power is defined as force times distance divided by time.

Strength exercises are often interpreted as power movements. The bench press or squat, for instance, is strength movement, as there is no time limit on the movement. Two examples of power activities are an Olympic lift and the 100-yard dash. The Olympic lift requires a rapid movement of a weight from one's knees to the shoulders (or above the shoulders) as quickly as possible. The 100-yard dash is running from point A to point B as fast as one can.

Flexibility refers to the length of a muscle in a specific movement, such as touching one's toes. The end range of motion determines the movement, and the joint or the muscles involved in the movement determine the end range of motion.

Mobility is the ability to move around a joint. This is similar to flexibility; however, mobility is more of a movement term and flexibility is a static term. The golf swing is a dynamic action—therefore, determining a range of motion during activity is more important than a held position. Think of mobility as a rotational movement or the incorporation of multiple joints in a motion.

Stability is the ability to hold a specific position for a period of time. This is normally associated with the mid-section of the body. Joints such as the hip and shoulder need to create stability throughout movements in the golf swing. Players will tend to lose balance if they are unable to hold a stance for a period of time. In addition, the inability to stabilize on one leg often causes a loss of balance.

Nutrition comes from proper diet. The simple form of nutrition involves creating a balance in food intake, incorporating protein, carbohydrates, fats, fruits, vegetables, and nuts into one's meals. Timing is an important component in creating proper nutrition. Eating every two to three hours brings about continual digestion and full utilization of the essential nutrients in the food. Consuming a protein to carbohydrate ratio of 1-2 after a workout, round of golf or tournament is important to enable the body to replace the lost nutrients and start the muscle recovery process.

Recovery is the most overlooked training component. Juniors often stay up late and end up getting less than the optimal amount of sleep (seven to nine hours per day). They also often have sporadic eating habits, which can decrease the amount of essential vitamins and minerals needed for growth and development. The body builds up muscle, bone and the immune system through the recovery process.

The rest between exercise bouts will also determine the energy system being trained. For example, when training for speed, it is essential to rest 60-90 seconds between sets. When training for maximal strength or power, it is important to rest two to three minutes between exercise bouts. This allows for optimal recovery of the phosphocreatine system and formation of Adenosine tri-phosphate, or ATP, which is the energy source for one's body.

Energy Systems

The human body has two main energy systems: the anaerobic and aerobic energy systems. The anaerobic system can be broken down into two sub-groups: the ATP-PC system (where PC stands for phosphocreatine), and the lactic acid system (or anaerobic glycolysis system).

The aerobic system requires oxygen for energy, while the anaerobic system does not. The aerobic system is used during sustained activity for at least three minutes, while the anaerobic system is used during activity of less than one minute. The ATP-PC system provides the power for activities that last for less than 10 seconds. The anaerobic glycolysis system is used during activities that last from 10 seconds to about one minute.

There is an energy system continuum that incorporates the three classifications, meaning that each activity has a percentage of involvement throughout the duration of the movement. For example, a long distance runner starts off and requires a bit of the ATP-PC system, then transfers to the anaerobic glycolysis, and finally to the aerobic system. Throughout the run, he may need a boost of power, at which point the ATP-PC system kicks in before the runner returns to using the aerobic system.

The golf swing is less than two seconds and primarily employs the ATP-PC system. The walking between shots, standing, and talking requires oxygen, and therefore uses the aerobic system. The development of the aerobic system is important to aid in phosphocreatine restoration.

For the creation of exercise activities, it is important to understand how the body recovers from certain bouts of activity and how the muscles adapt to training:

- Power movements are best at 1-5 repetitions, with recovery between sets at 2-5 minutes.
- Maximum strength movements are best at 1-3 repetitions, with recovery between sets at 2-5 minutes.
- Strength movements are best at 4-8 repetitions, with recovery between sets at 2-3 minutes.
- Hypertrophy, or increase in muscle size, is best at 6-12 repetitions, with recovery between sets at 60-90 seconds.
- Muscular endurance is best at 12-plus repetitions, with recovery between sets at 0-60 seconds.

These variables are best suited for highly trained individuals looking for optimum training. In optimal training, the fatigue factor and recovery are essential in the development of muscular power and maximal strength. The long rest allows for the replenishment of the phosphocreatine stores and the nervous system. For instance, training with power movements for greater than five repetitions has shown to greatly increase fatigue and potentially increase injury.

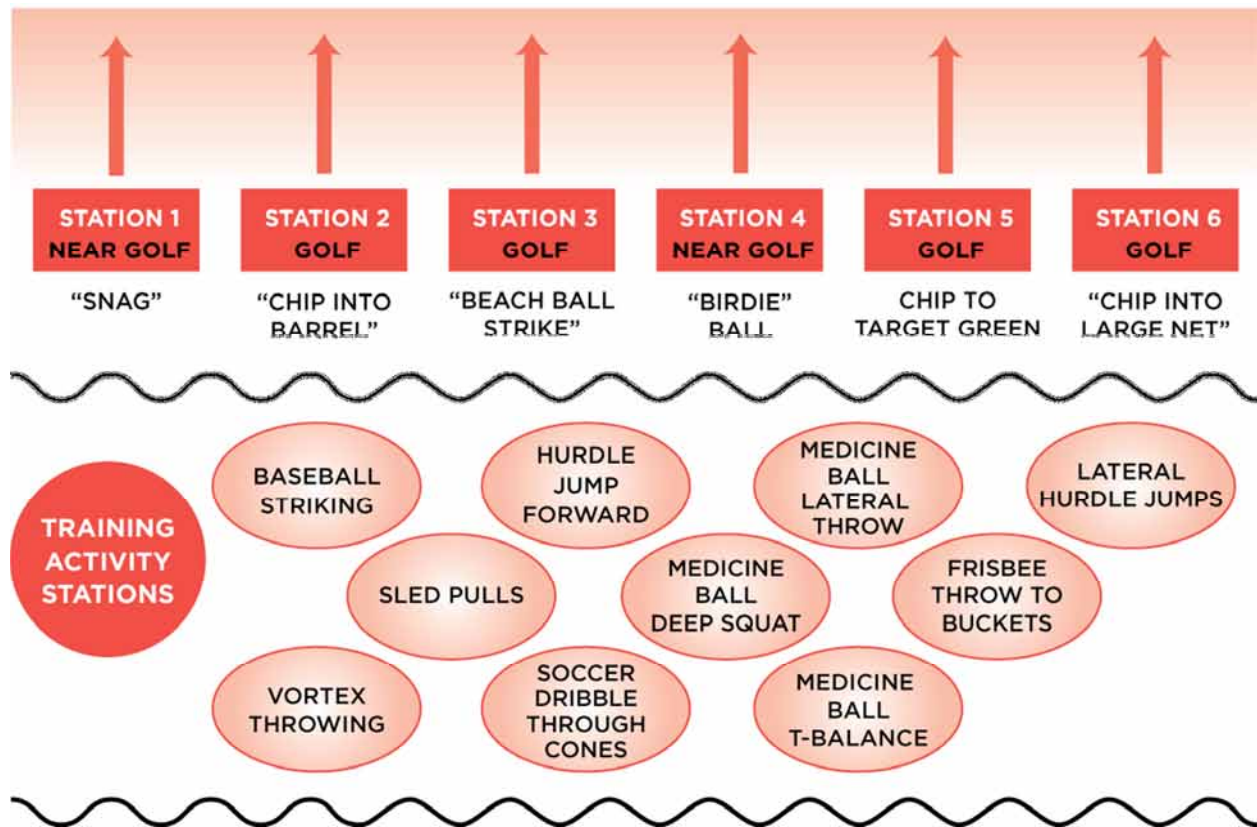
The general public will follow more of a muscular retraining program that fits into the muscular hypertrophy and muscular endurance protocol. This higher repetition range allows for myelination of the nervous system to the muscles. This allows the muscles to increase in strength, stability and activation. The individual needs to relearn how to move specific muscles and muscle groups that are necessary to move the skeletal structure into the proper position.

Designing a Junior Training Program

The priority in designing a junior training program is to improve the students' overall athleticism. The instructor must make sure that the students' fundamental movement skills are being addressed or that they are proficient in these movements. Incorporating the movements into the sessions is important throughout the students' development. The individuals will all have phases of accelerated growth that will delay sport skill progress. These are the stages of development where continuing the fundamental movement skill training will allow the individuals to continue to progress appropriately.

The Sport Level emphasis is on physical development and building a foundation for growth and maturation. Emphasis is on motor skill development, movement patterns, skill development, strength, speed, power, mobility and stability. This age group should be more advanced than the Player Level and can incorporate more challenging activities such as pulling and pushing. The Sport Level can utilize more training with medicine balls, stability balls, dumbbells and cables. The continual focus should be on the fundamentals of training.

Creating training activities along with golf activities during camps or weekly golf programs for juniors ensures the continuous development of the students' fundamental skills. For example, with students aged eight to eleven, a program alternating golf stations with training activity stations in the background could be used, such as the layout shown in the following figure.



The junior development training progressions should follow these guidelines:

- **Stable to Unstable**—The progression should start with a stable base, in which the student has both feet on the ground. With this stable base, the student should first be taught an athletic stance rather than a golf stance, because juniors tend to have difficulty mastering a firm golf stance right away. As was discussed in the Level 1 *Introduction to Teaching and Golf Club Performance* course, the “All or None” muscle theory states that if a muscle fiber does not fire, then the entire muscle group will not fire. Moving a student too quickly to an unstable environment will cause the body to activate the dominant muscles to work to help stabilize the body. The instructor needs to create a firm foundation by training the body to move from an unstable state to one that is more stable as a foundation for the golf swing.
- **Movement Before Resistance**—The junior athlete should focus on the technique of the movement, not how much weight he or she is lifting. Most juniors are unable to produce speed or power efficiently. Teaching the sequence of movement and ensuring proper activation is more important than increasing the amount of weight they are lifting. Students should first master the movement and then gradually increase the weight.
- **Abdominal Control (Stability) Before Variety**—The abdominal and lower back areas are often lacking in strength or stability because of peak height velocity or growth spurts. The “Stable to Unstable” guideline also applies to the abdominal region. In order to allow for proper muscular development, it is important to teach the student how to stabilize and support his or her own body weight and proper movement through the abdominal region with proper contraction. Additionally, there are a number of juniors who breathe incorrectly. Breathing predominately with the chest instead of the diaphragm causes a disruption in abdominal stability. As an individual inhales, their abdominal area should increase in size, and when exhaling, the area should get smaller, with minimal movement in the chest area.
- **Unilateral Activities:** The majority of sporting activities are performed on one leg or utilizing one arm. The golf swing has a transfer of weight from one side of the body to the other. Proper training should be performed on the single extremity to ensure balanced strength in the legs and arms. Using dumbbells instead of a bar for arm training allows for proper movement and balanced training as well as proper breathing patterns.
- **Athletic Before Specialization:** If a junior is trained as an athlete, this allows for more golf-specific training on the range or course. This is the fundamental movement training of skipping, jumping, hopping, throwing, kicking and striking. There needs to be a mastery of the fundamentals in order to ensure advancement with the specifics of the sport.
- **Proper Firing Patterns:** Cross-crawl patterns of movement can be disrupted with improper training. Additionally, the utilization of barbells and holding one’s breath during lifting movements can disrupt cross-crawl firing patterns. The extension of the right leg and left arm are essential components of a proper golf swing. The rotator motion of the golf swing incorporates proper cross-crawl patterns of movement.

These guidelines can also be incorporated into an adult training program. Adults who do not have a previous training history are similar in many ways to juniors who are still developing.

These adults may be awkward with the majority of training movements due to the lack of muscular involvement or muscular activation. Training the adult to be a better athlete will help him or her improve their golf swing through increases in core stabilization and hip stability. The training program benefits are achieved from consistency. The more often an individual works out or trains, the more improvement he or she will see in training and golf performance. The workout is a stress that is placed on the body, and the body will adapt to the stress and build muscle, strength, stamina or whatever improvements the student is trying to bring about. This is referred to as the **SAID (Specific Adaptations to Implied Demands)**, which suggests that an individual who only trains his or her lower body will only get stronger in the lower body. This is why it is important to incorporate all aspects of training (strength, speed, power, mobility, stability and recovery) into each training session.

The majority of training program designs will fall in the hands of an exercise specialist, but it is important for the golf professional to understand proper progression and a training program overview to help educate clients and get them the help they need.

Nutritional Plan

Establishing a proper nutritional program begins with a consistent eating pattern. The first part of the day should begin with breakfast. The body has been dormant for six to ten hours; however, it has still been active. The muscles, heart, internal organs and brain are still functioning in some capacity. The body is burning calories while sleeping; therefore eating breakfast within an hour of waking is essential to help fuel your body and replenish the nutrients that were utilized while sleeping.

A plan for the day needs to be established to create the opportunity to eat snacks and meals every two to three hours and drink plenty of water throughout the day. A good rule of thumb is to drink half your body weight in ounces throughout the day.

HYDRATION

Dehydration is counterproductive to athletic performance. Minor dehydration impairs concentration, coordination and reaction time, reduces stamina and compromises the body's ability to resist disease. Dehydration of muscle of only three percent can cause about 10 percent loss of contractile strength and eight percent loss of speed.

Water plays a significant role in the effective functioning of the body in any athletic endeavor. All muscle actions occur because of the cellular reactions that initiate nerve impulses. Water acts a solvent for these reactions to occur. During exercise, the muscles need to contract at extremely high speeds, which is dependent upon precise communication between the nervous system and the muscles. Dehydration of muscles (leading to a sub-optimal balance between the muscle cell and the extracellular compartments) will cause the nerve impulses that contract the muscles to function at an inefficient rate. This will decrease the ability of the muscles to work at a maximum efficiency.

Water is essential as well in maximizing the delivery of oxygen to the muscles; inadequate delivery of oxygen will lead to premature fatigue.

Seventy-five to 80 percent of energy expended during exercise is converted to heat. Water is the primary mechanism for heat removal through dry heat exchange and sweating. During exercise, the heat produced can raise the body temperature dramatically and can cause serious heat injury if adequate body water is not present to control it.

Here are some important guidelines for adequate water consumption:

- The best rehydration fluid is cold water; sports drinks ranging from 6-10 percent glucose are also good.
- Avoid fluids with caffeine or alcohol (energy drinks, coffee, tea, sodas, diet soda, beer, etc.); they increase urine production, which in turn increases dehydration.
- Salt tablets aggravate the condition by drawing more water out of muscle and into the stomach.
- A good general rule is to consume half your body weight in ounces per day.
- Pre-event: Competitors should drink about 16 ounces of fluid about two hours before exercise to promote adequate hydration and allow time for excretion of excess water.
- During event: Athletes should start drinking early and at regular intervals in an attempt to replace all the water lost through sweating. It is recommended that the athlete drink eight ounces (one cup) every 10-15 minutes.
- Post-exercise re-hydration: Individual should drink two cups (16 oz) for every pound lost during the duration of exercise.

MEALS AND SNACKS

Meals and snacks need to incorporate a balanced intake of fruit, vegetables and nuts, lean sources of protein, essential fats and healthy carbohydrates.

INCORPORATE FRUITS, VEGETABLES AND SEEDS INTO EVERY MEAL

All of the foods found in this step have similar properties that are essential to the high level athlete in any sport. Sports have different metabolic demands, but the two main goals of any training/nutritional regimen are the same: maximize performance and enhance recovery to minimize injury.

These foods contain antioxidants, which protect cells from the free radicals that contain by-products that are damaging to the body's metabolism. Antioxidants found in whole food sources are much more effective than those found in vitamin supplements. They also contain natural anti-inflammatory properties. Some inflammation of muscles, tendons and ligaments is inevitable in any high-intensity athletic pursuit. But prevention of *excessive* inflammation, plus treatment of inflammation, are two of the most important aspects of maximizing performance and enhancing recovery. Fruits such as pineapple and papaya have key enzymes that possess anti-inflammatory properties.

The phytonutrients found only in fresh fruits and vegetables serve multiple functions. They contain antioxidants and enhance the body's immune system; they reduce inflammation and

augment the effects of Vitamin C; they block the enzyme that raises blood pressure; and they strengthen the vascular system that carries oxygen and essential nutrients to the cells.

Many of these foods are essential for any athlete looking to maintain or lose body fat. The nuts, seeds and oils in this group are high in unsaturated fat but low in saturated/trans fat. Unsaturated fats are good; the body needs and utilizes them without storing them.

These foods are high in Vitamin A, which provides optimal protein synthesis and hormone production; regulates the body's immune system; helps to support tissue maintenance; and helps to maintain optimal vision and bone growth. Particularly good are tomatoes, broccoli, yams, dark salad greens, red/green peppers, spinach, carrots, peaches, cantelopes, grapefruit, watermelon, mangos, tangerines and Mandarin oranges.

Vitamin C aids in the formation of collagen (a protein that gives structure to muscle); helps reduce muscle soreness and increases regeneration capabilities of the muscles; directly scavenges free radicals; restores Vitamin E to its antioxidant form during periods of high stress (exercise); and aids in the absorption of iron. A suggested supplement of no more than 1 g/day (1000/mg) is ideal. Vegetables high in Vitamin C include cauliflower, green/yellow peppers, asparagus, green beans and new potatoes (w/skin). Among the best fruits are oranges, kiwis, strawberries, pineapples, blackberries, raspberries, honeydew and lemons.

Vitamin E is necessary for proper use of oxygen by the muscles as it aids in the efficiency and regeneration of the muscles; and it prolongs the life of red blood cells, which will improve the efficiency of the cardiovascular and respiratory systems and allow an athlete to train at a higher level longer.

Key foods in this category include nuts/seeds such as sunflower seeds, peanuts, almonds, cashews, peanut butter, whole wheat flour; avocados; olive oil; and fish such as salmon, trout, clams, oysters and scallops.

INCORPORATE LEAN PROTEIN SOURCES INTO EVERY MEAL

While carbohydrates' main function is to "fuel" the muscles, protein's main function is the "rebuilding/growth" of muscles. Many athletes are fooled into thinking that increasing protein intake will always result in an increase in lean tissue. However, the body can only utilize a certain level of protein – any more will either be stored (as fat) or excreted out of the body. Excess protein can also cause the body to become dehydrated.

This rebuilding and growth process spawned by protein is an on-going process; constantly supplying your body with protein throughout the day will maximize muscle growth. It's important as well to recognize that protein will only be used to build muscle if you eat enough carbohydrate calories to provide your body with energy.

It is important to diversify your protein sources. Many people over-consume animal proteins and either under-consume or eliminate the other types of protein. Even though it is difficult to find options to these other selections (especially the vegetable proteins), it is still important enough to

diversify as much as possible. A good breakdown would be 50 percent animal proteins, 25 percent dairy proteins and 25 percent vegetable proteins

FOODS

Item	Serving Size	Protein	Source
Tuna (water packed)	7 oz (1 can)	54 g	Animal
Fish (cod or salmon)	6 oz	40 g	Animal
Turkey (skinless)	4 oz	35 g	Animal
Pork (lean)	4 oz	35 g	Animal
Red meats (lean – 7 percent fat)	4 oz	35 g	Animal
Canned chicken breast	5 oz (1 can)	30 g	Animal
Lamb (lean)	4 oz	30 g	Animal
Tofu (low fat)	6 oz	30 g	Vegetable
Chicken (skinless)	4 oz	35 g	Animal
Cottage cheese (1-2 percent)	1 cup	28 g	Dairy
Ground Turkey Breast	4 oz	22 g	Animal
Raw Kidney Beans	0.5 cup	22 g	Vegetable
Raw Lima Beans	0.5 cup	21 g	Vegetable
Raw Black Beans	0.5 cup	21 g	Vegetable
Raw Pinto Beans	0.5 cup	20 g	Vegetable
Turkey Chili (99 percent fat free)	1 cup	17 g	Animal
Yogurt (low fat)	1 cup	13 g	Dairy
Milk (low or no fat)	1 cup	8 g	Dairy
Boiled beans (kidney, black, garbonzo)	0.5 cup	7 g	Vegetable
Egg (whole)	1 large	6 g	Animal
Deli meats (turkey breast, ham, roast beef)	1 oz	5 g	Animal
Canadian bacon	1 oz	4 g	Animal
Cream cheese (no fat)	1 oz	4 g	Dairy
Egg (white only)	1 large	3 g	Animal

FATS

Fats are important to athletes because their metabolism contributes to energy production during exercise. The biggest misunderstanding athletes have about fat is that too often they try to eliminate fats to keep lean. But by cutting down or eliminating fats, the danger is you might actually over-consume other macronutrients (carbohydrates and proteins). If any macronutrient is over-consumed, it is either stored (as fat) or excreted out of the body.

Fats facilitate absorption of fat-soluble vitamins and provide essential fatty acids. They also help keep glycogen levels at needed levels; performance can decrease if glycogen levels drop too much. Low-fat diets can limit endurance performance at about 65 percent VO₂ max, where many athletes train and they are associated with menstrual dysfunction, anorexia nervosa, migraine headaches, ADHD and ulcers.

Unsaturated fats (good fats) that should be a part of every athlete's diet include olive oil, canola oil, flaxseed oil, soybean oil, nuts and seeds (vitamin E sources). The metabolic pathway with which these are utilized will drive the lipoprotein profile in a positive direction.

Saturated fats (bad fat) come from animal sources like beef. The metabolic pathway with which these are utilized will drive the lipoprotein profile in a negative direction.

Research shows that trans-fat is just as bad as saturated fat. It is usually listed in the ingredients as partially hydrogenated oil or hydrogenated oil.

A good diet includes only All Natural peanut butter. It is higher in fat than other brands but has little saturated fat and no trans-fat. Some brands have a layer of oil on top which needs to be mixed and refrigerated; other brands today are all natural without the layer of oil and are pre-mixed.

Margarine is worse than regular butter because of the processing, but butter itself has a lot of saturated and trans fat. An example of a spread that is low in saturated fat and contains no trans-fat is Smart Balance.

HEALTHY CARBOHYDRATES

Carbohydrates are the primary energy source for human activities and are found in nearly all foods that we consume. The beneficial physical factors for consumption of carbohydrates are increased energy storage in the muscle, protein-sparing effect (for growth and repair of muscle), and prolonged endurance. The popular opinion on carbohydrates is that they will get stored as fat. This is only partially true. Consuming too many of the wrong carbohydrates at the wrong time can lead to the storage of fat. However, learning the right type of carbohydrates to consume at the optimal times can have positive effects on both athletic performance as well as body composition. Elite athletes should have a carbohydrate consumption of at least 60 percent of total caloric intake.

The glycemic index (GI) is a measuring system that helps us determine the type of carbohydrates to consume at the correct times. The GI measures the rate at which carbohydrates are absorbed into the bloodstream. Foods are assigned values relative to the value of the standard food (glucose), which is equal to a relative score of 100.

High-glycemic carbohydrates trigger an immediate rise in blood sugar. These faster carbohydrates should *only* be consumed immediately after exercise or midway through a longer competition/training session (two hours or more). Consumption after exercise aids in the recovery process (immediately replenishing glycogen stores lost through intense exercise), and consumption during exercise provides a quick burst of energy when muscle glycogen stores are being consumed. They should be avoided the rest of the day.

Medium/low glycemic carbohydrates cause a slow, steady rise in blood sugar. These slower carbohydrates should be consumed with each meal throughout the day and are particularly important at breakfast because they replace the blood glucose levels depleted during sleep. Skipping breakfast (or carbs at breakfast) also puts the body into “shock” (starvation mode).

Chronically depriving the body of carbohydrates sends a message to the brain causing a change in basal metabolism. The result of this change is a sparing of fat for survival; which causes your body to utilize energy by breaking down muscle tissue. This is because your body will hold onto the energy source that possesses the highest density of calories (fat is nine calories per gram compared to protein, which is four calories per gram).

PGA Sports Academy Champion Level



PGA Sports Academy

Purpose/Mission:

The PGA Sports Academy program is a collaborative framework based on research and best practices from PGA Professionals, PGA Education, allied associations and the Long Term Athlete Development (LTAD) standards for juniors adopted by the PGA World Alliance. The PGA Sports Academy's focus is to develop core golfers and provide them with pathways to continue to play golf socially or competitively based on each individual's desire.

It is imperative that every parent/participant understands the process of LTAD in the PGA Sports Academy program so that they have a clear understanding of what the PGA Professional is trying to accomplish with each participant. PGA Professionals are strongly encouraged to distribute a copy of The PGA Sports Academy Parent Resource to parents before their child begins the PGA Sports Academy to help outline the curriculum and expectations for the program.

Fun – First And Foremost

Fun – First and Foremost is our junior golf mantra. We must make sure new golfers are engaged and have a fun, interactive experience. To educate and get juniors involved in golf is the goal, but keeping it *fun* is the primary focus. It's crucial that instructors enjoy the experience—juniors will sense your love of the sport and hopefully become smitten for a lifetime.

PGA Sports Academy Curriculum Overview:

The PGA Sports Academy will help youth learn to play golf and have fun in the process. The PGA Sports Academy has three levels: Player, Sports and Champion.

Player Level Objectives

- Develop an understanding of the sport of golf;
- Learn fundamental movement and motor skills and link them together into the golf swing;
- Use ball-striking games such as baseball and hockey to develop hand-eye coordination;
- Establish essential safety and etiquette.

Sport Level Objectives

- Develop fundamental golf movement skills and teach overall sports skills;
- Learn scoring, the rules of golf and the process of playing a round of golf;
- Establish target and alignment fundamentals and begin developing proper short-game skills.

Champion Level Objectives

- Establish a knowledge base in the mental side of the sport;
- Develop full swing, short game and putting skills to higher level;
- Incorporate strength, stability and flexibility to improve performance and health;
- Enhance performance by learning course management skills, STAT tracking, keeping a golf journal and advancing to national competitions.

Each level includes five focus areas that will help juniors learn, develop and practice the skills to become better golfers and enjoy the sport of golf:

- Fitness and Nutrition;
- Golf Skills;
- Sportsmanship, Etiquette and Rules;
- Golf and “Near Golf” Experiences;
- Golf and Skills Challenges.

Each level will develop the necessary physical and golf skills to practice, improve and enjoy the sport. Juniors will be tested before they begin each level to determine their level of experience. At the end of each level, each participant will be tested again and will receive a score based on his or her skill level. The PGA Sports Academy will give each participant a practice program to improve their skills and set goals to help become a better golfer.

Delivery:

The PGA Sports Academy is designed to enhance PGA Professionals’ existing junior golf programs as well as provide a turn-key solution for professionals who wish to adopt the program in its entirety. The PGA Sports Academy is designed to be delivered at “green grass” facilities, but it can easily be adapted for in-school and after-school programs to help transition youth to PGA facilities. The curriculum is structured to be multi-dimensional with generous flexibility in terms of teaching methodology from PGA Professionals.

Knowledge of Game

Champion Level Overview

As highlighted in the Knowledge of Learning and Teaching overviews, young adults in the Champion Level are in the period considered ideal for specializing in golf. Golfers at this level are physically stronger. They benefit from increased attention spans, better overall interest in skill development and improved willingness to compete. It's appropriate at this level for the PGA Professional to shift to more formal instruction settings, complemented by structured practice environments. Following are some suggestions for creating this program; adaptation to suit the particular student and facility are encouraged.

Champion Level Instructional Focus

The suggested instructional focus in the Champion Level continues with the development of a square clubface and clubhead path through the utilization of pre-swing issues of grip, posture and alignment. In addition, the instructor should begin teaching awareness and integration of the angle of approach, centeredness of contact and clubhead speed. The intent of this strategy is to continue the development of the student's awareness of the Impact Factors and how angle of approach, centeredness of contact and clubhead speed relate to ball flight.

This focus on the in-swing components of the swing is, in part, because of the continued increase in strength (especially in males when compared to females) and attention span as well as interest in learning to perform sport skills and play skillfully, especially in competition. Positive feedback and consistently highlighting key points are suggested as always. The use of video to highlight technique issues can be a valuable tool as well.

Full Swing—Champion Level Pre-Swing Instructional Points

Grip

Since the grip is the student's only connection with the club, it is important that he/she appreciate the impact it will have on their overall swing potential. The instructor should attempt, through positive feedback, to reinforce a grip that the instructor feels most adequately fits the student's needs.

The palms should face each other with the back of the left and the palm of the right facing the target. A correct grip will allow the student the greatest chance of keeping the clubface square to the motion and the shaft of the club consistently on the student's individual swing plane.

Three steps can help the student ensure a correct grip:

1. Have the student hold the club at a 45percent angle with the right hand.
2. Have the student position his/her left hand on the grip as if shaking hands.
3. Have the student slide his/her right hand towards the left, covering the left thumb.

Stance and Posture

Correct stance and posture require that the student's feet be positioned shoulder width and the body weight evenly distributed or slightly favoring the right side. The student's arms should be relaxed and hang directly below the shoulders. There should be a straight line running from the hips to the shoulders. The butt end of the club should point between the left hip and zipper. This

address should be combined with a ball position that is center of the stance with irons, slightly forward of center for hybrids and fairway woods and even with the left heel for drivers. Correct stance and posture will allow the student the best opportunity to effectively swing the club as well as move his/her body while maintaining stability with the lower body.

Proper stance and posture are achieved in three steps:

1. The student stands tall with the feet positioned shoulder width.
2. The student adds a slight amount of knee flex.
3. The student leans forward from the hips to reach the ball.

Alignment

Neutral or square alignment has the clubface aiming directly at the target and the feet, hips and shoulders parallel left of the target line. This combination of target line and body line often is compared to a railroad track with the outer rail the clubface line and the inner rail the body line.

Neutral or square alignment is achieved by the following three steps:

1. The student positions the clubhead behind the ball with the clubface square to the target or an intermediate target.
2. The student positions the feet, hips and shoulders parallel to the target line.
3. The student adjusts their feet as necessary to establish parallel lines.

Proper alignment combined with a correct grip, stance and posture are important in helping the junior establish a correct swing shape. Though these pre-shot steps take minimal time to achieve, junior golfers very often view them as unimportant and lack the discipline to regularly repeat the steps. Unfortunately, without these steps, consistent development and improvement are not always possible.

Full Swing—Champion Level In-Swing Instructional Points

Most juniors learn the motion of the swing through a focus on the body turn, arm swing or a combination of both. An alternative approach when teaching the full swing to the Champion Level junior is to create an awareness of the direction the club is traveling during the swing. This focus is considered an “external cue” strategy with the focal point on the shaft and clubhead rather than an “internal cue” strategy that would place emphasis on the movement of the various parts of the body. These full swing “external cues” highlight the specific positions of the club during the motion of the swing. Commonly referred to as checkpoints, these positions can be considered an alternative approach or supplement to a focus on the student’s body movement.

The checkpoints for the backswing are as follows:

1. The initial takeaway of the clubhead from the ball.
2. The shaft is parallel to the target line with the toe of the club pointing up while the clubhead is on the shaft line.
3. The shaft is parallel to both the address shaft line and parallel shoulder line.
4. The shaft is parallel to the target line with the left arm on the secondary plane line and the clubface is square to the left forearm.

The downswing has six checkpoints:

1. The start to the downswing has the shaft parallel to the plane and shoulder line.
2. Waist height in the downswing, the clubhead is in the waist- height position of the club in the backswing.
3. Impact, where the shaft has returned back to a similar position to that of address.
4. Waist height after impact is a mirror image of the backswing, where the shaft is parallel to the target line with the toe of the club pointing up.
5. Shoulder height after impact is a mirror image of the backswing and start to the downswing where the shaft is parallel to the shaft and shoulder line.
6. The finish has the shaft over the shoulder.

Short Game – Champion Level Pre-Swing Instructional Points

PGA Professionals and experienced junior golfers understand quite well the importance of short-game proficiency to producing lower scores. The Champion Level program provides an ideal environment for the instructor to work with the advanced junior in elevating his strategy and execution of short-game shots to an even higher level.

Chipping/Pitching Definitions

Chipping is defined as a shot that covers more distance on the ground than in the air. The shot has maximum roll with minimum air time. Often beginning golfers take quickly to the concept of chipping as the slow speed of the swing and short distance the ball travels make it a relatively safe shot and one easier to execute than other shots.

Pitching is defined as a shot that covers more distance in the air than on the ground. The shot has maximum height with minimum roll. Though pitching is a more difficult shot, it is often the only option when trying to get the ball on the green and close to the hole.

In both cases, the height the ball reaches is determined by the set-up, loft of the clubface and speed of the swing. The distance that the ball travels in the air is the result of the length of the swing.

Chipping

A proper chip shot set-up for the junior can be achieved by the following four steps:

1. The student utilizes the same grip as the full swing, with the hands positioned lower on the grip.
2. The junior narrows his/her stance to a point where the heels are positioned less than shoulder width.
3. The student positions the ball back of center of the stance, with the butt end of the club in front of the ball.
4. The student leans his/her weight slightly to the left.

The proper execution of a chip shot can be achieved by the following three steps:

1. The backswing is a combination of arm swing with very little wrist or hand action and subtle body movement.
2. The downswing returns the clubhead to the ball with the club brushing the ground beneath the ball, using a combination of arm swing and subtle body movement.

3. After impact, the arms swing the clubhead to a mirroring position of the backswing with a slight pivot or turn through of the body to the finish.

Club Selection for Chipping

With every chip shot, the ball should land on the putting surface as soon as possible. Varying the distance the ball rolls can be accomplished by changes in club selection, swing speed or a combination of both.

Difficult Chipping Situations

The chip shot set-up, with slight changes in the length of swing and weight distribution, is an ideal shot choice when the junior is faced with a situation such as hitting the ball off of hardpan or pine straw, out of a divot or even long rough. It is crucial for the junior golfer to learn how important it is to *strike the ball first* and then make contact with the surface beneath the ball.

Hardpan—Traditional chip-and-run set-up with special focus on keeping the weight on the left side throughout the motion. The golfer should expect shots to be hit slightly thin and as a result tend to roll a greater amount.

Pine straw—Traditional chip-and-run set-up with a special focus on impacting the ground slightly in front of the ball. A common error is to hit behind the ball in this situation, resulting in the ball being hit short of the intended target.

Ball in Divot—As with hardpan, the key to success in this shot is for the junior to keep his/her weight on the left side throughout the motion. Shots will tend to be hit slightly thin and, as a result, roll a greater amount.

Long rough—A traditional chip-and-run set-up can be used with a higher lofted club. The junior should attempt to swing the clubhead up slightly more vertically in the backswing to help ensure a more steep angle of approach to the ball through impact. The golfer should anticipate shots to be hit with very little spin, resulting in a greater amount of roll once the ball lands on the putting surface.

Pitching

A proper pitch shot set-up can be achieved by the following four steps:

1. The golfer utilizes the same grip as the full swing, with hands positioned lower on the grip.
2. Stance is narrowed to a point where the heels are positioned less than shoulder width.
3. The ball is positioned in the center of the stance, with the butt end of the club even with the ball.
4. Weight is balanced evenly between the right and left sides.

The proper execution of a pitch shot can be achieved by the following three steps:

1. The backswing is a combination of arms and hands swinging the club to the waist- height checkpoint, which has the shaft parallel to the target line and the toe of the club up.
5. The downswing returns the clubhead back to the ball, brushing the ground beneath the ball.
6. After impact, the clubhead swings to a mirroring position to that of the backswing.

Varying the distance the ball travels in the air is accomplished by adding or taking away length to the backswing and forward swing. Depending on the length of swing taken, the junior may have a slight amount of turn not only in the backswing but also in the finish to the motion.

Pitch Shot Club Selection

As with chipping, the junior should attempt to land the ball on the putting surface as quickly as possible. The use of different lofted clubs will allow for the height to be varied, thus influencing the distance the ball rolls. Higher lofted clubs such as a sand wedge or lob wedge will ensure height to carry while eliminating a great amount of roll.

Difficult Pitching Situations

With practice and slight set-up changes, the pitch shot can be an alternate option to the chip shot when the junior is in the following situations. Note that the pitch shot from a difficult lie tends to be more difficult than the chip-and-run.

In each case of hardpan, pine straw, divots and long rough, weight distribution should be 60/40 favoring the left side. The length of the swing needed to carry the ball to the target will vary depending on the strength of the junior. In the case of playing from long rough, the swing should be no more than a three-quarter swing to ensure solid contact.

Bunker Play Definition

Though it does not require any change in the mechanics, a greenside bunker shot situation does require a slight change in the fundamentals. This shot is difficult for most juniors due to the inconsistency of sand on the golf course and the limited access for practice. No matter the level of the skill, the first goal should be to get the ball out of the bunker onto the putting surface.

Bunker Play

A proper bunker shot set-up can be achieved by the following four steps:

1. The grip and alignment are the same as the full swing.
2. The stance should be shoulder width with the feet dug into the sand.
3. The ball should be positioned slightly forward of center in the stance, with the butt end of the club pointing to the center of the body.
4. Weight should be balanced equally between the right and left sides.

The proper execution of the bunker shot is identical to the motion of the full swing and pitching motion. Slight variations in the overall length of swing determine the distance the ball carries.

Bunker Play Club Selections

As with chipping and pitching, the junior should attempt to land the ball on the green as quickly as possible while using a standard lofted (56 degree) sand-wedge. More experienced Champion Level juniors will find that a slight opening of the clubface at address will add loft to the clubface, resulting in a slightly higher and shorter outcome. Varying the speed of the swing is another option when attempting to vary the distance the ball flies. A third approach to varying the distance is through a combination of clubface position and swing speed.

Difficult Bunker Play Situations

With slight changes in the clubface position at address and length of swing, the greenside bunker shot can be used in the following difficult situations:

Buried Lie – Standard pre- and in-swing considerations for a bunker shot with a closed clubface at address. This will force the toe of the club to be the leading edge which helps dig the ball out of the sand.

Wet Sand – Feet should be dug into the sand as much as possible to ensure that sand is taken during the swing. Keep the clubface square at address to help the club dig into the sand at impact.

Hardpan – Feet should be dug into the sand as much as possible to ensure that sand is taken during the swing. Keep the clubface square at address to help the club dig into the sand at impact.

Putting Definition

Putting is different than all other areas covered thus far because it requires the ball to roll. No height is needed; in fact, the better the roll of the ball, the more successful the putt. For the junior golfer, putting is crucial. The junior might think of putting as an equalizer that can make up for errant shots.

Putting

Grip

There are two grips: the reverse overlap and the ten-finger grip. The most important feature of the grip is the position of the student's hands in relation to the shaft. Both hands should have the grip positioned in the palms. Individual preferences can position the thumbs pointing down the top or side of the shaft. The back of the left hand and palm of the right hand should remain square to the target line.

Stance and Posture

Correct stance and posture will have the student's feet positioned shoulder width with the body weight evenly distributed or slightly favoring the left side. The arms should be relaxed and extended naturally below the shoulders. Because of the closeness to the ball and the length of the putter, the student will be forced to curve his/her back slightly. Positioning their body comfortably to the ball is the main objective. The ball position should be slightly forward of center in the stance.

Alignment

Correct alignment has the clubface looking directly at the target. The feet, hips and shoulders can be positioned parallel left or slightly opened or closed to the target line.

Obviously, the fundamentals in putting are not as stringent as those of the full swing. This more relaxed view is due to the fact that the junior's body is inactive and stable in a proper putting stroke, leaving the student and instructor open to try different postures and alignments as long as the mechanics of the stroke remain intact.

The backstroke has two checkpoints that will ensure that the club is traveling in the correct direction on the target line. They are as follows:

1. The clubhead travels straight back away from the ball with the clubface remaining square to the target line.
2. Depending on the length of stroke, the clubhead will travel slightly inside of the target line with the clubface remaining square to the arc.

The forward stroke has two checkpoints:

1. The clubhead returns back to the ball on the target line with the clubface square.
2. After impact, the clubhead continues on the target line and, if necessary, swings slightly inside the target line, matching the backstroke in length and relationship to the ground.

The putting stroke is a combination of arm and shoulder motion. There is no need for body motion due to the lack of distance required. The order of motion begins with the arms and shoulders swinging the club straight back away from the ball with the clubface staying square to the target line. In the forward stroke, the clubhead returns back and through the ball, remaining on the target line with the clubface square. Throughout this motion, the head and body remain still, while the butt end of the putter maintains its relationship to the body. After impact the junior should attempt to hold the finish to review the contact with the ball and to determine if there was excess body motion. Distance of the putt is the result of the length of the stroke.

Champion Level Pre-Shot and Post-Shot Routine

The purpose of pre-shot and post-shot routines is to allow the junior an opportunity to focus on playing the game rather than becoming distracted by errant shots and poor scoring. Typically, a pre-shot routine contains elements that can range from the junior assessing the lie of the ball to the visualization of the shot prior to the swing. A post-shot routine typically contains the elements of shot acceptance and performance evaluation. In the Sport Level, the pre-shot routine contains the following elements:

- Lie assessment
- Distance
- Type of shot
- Club selection
- Practice swing
- Deep breath
- Visualization

As the junior develops through the Champion Level, three additional elements are suggested:

- Pre-swing waggle
- Swing thought
- 100 percent commitment to the shot at hand

In the Sport Level, the junior was introduced to the post-shot concept of shot acceptance. In the Champion Level, the instructor should help the junior with the following post-shot routine elements.

- Accept the Shot and Manage the Resulting Emotions
- Evaluate the Swing that Produced the Shot

Champion Level Drills and Drills with Aids

Two tools available to the instructor that can be helpful in the development of a student's overall swing shape are drills and training aids. The benefit of these tools is that they will allow the instructor an opportunity to shape specific components of the junior's swing while eliminating the need for specific technical swing thought discussions. One of the keys to self-diagnosis in golf is for the student to have an understanding of the ball flight and how it relates to one's individual swing. Though it would be unrealistic to expect a Champion Level junior to grasp the various ingredients and complexities of a swing at this stage, it will certainly be helpful in his/her future development. In some cases, these drills and drills with aids will be familiar. A benefit to the instructor is that these examples will not only help to improve the overall motion of the swing but also help the junior to develop the feel of the swing. The following drills and drills with aids are but a small sample of the many that can be utilized by the instructor.

Practice Drills and Drills with Aids

The following text highlights a few of the more common drills and drills with aids that are utilized by instructors to improve a junior's impact with the ball. While this list is by no means complete, it can offer the instructor tools to help the student develop more correct technique as well as a better feel of the golf swing. To simplify matters, the drills are written for the right-handed golfer.

The following three-step process is effective when practicing a drill or drill with an aid.

1. The student makes a practice swing to an imaginary ball, focusing on what the drill is guiding him or her to do.
2. The student hits the ball, focusing on what the drill is guiding him or her to do.
3. The student hits a ball without the drill, attempting to create the same feel of the swing as in Steps 1 and 2.

These steps should be repeated until the swing and shot outcome in Step 3 are as proficient as in Step 2. At this point, Step 2 can be omitted, leaving only Steps 1 and 3 to practice. Finally, prior to assigning the student a drill, the instructor should take the time to personally practice and test the drill. This process will not only give the instructor an understanding of the drill's purpose, its strengths and weaknesses, but this process will also make the instructor familiar with any safety issues involved.

Drills to Influence Face

Toe-In Drill / Heel-In Drill

The "Toe-In Drill" begins with the student addressing an imaginary ball with correct posture and an eight-iron. After swinging the club to waist height in the backswing, the student swings back to an imaginary ball where the toe of the club is ahead of the heel. This exaggerated closed

clubface position helps the student develop the feel of the amount of arm rotation necessary through impact to square the clubface at impact. After rehearsing the motion, the student attempts to hit the ball recreating the same feel through impact. To complete the sequence, the student then attempts to create the same impact position while making a full backswing and follow-through. After creating the desired ball flight, the student attempts the fuller motion swings with longer clubs while maintaining the shorter motion swings with the eight-iron.

The “Heel-In Drill” begins with the student addressing an imaginary ball with correct posture and an eight-iron. After swinging the club to waist height in the backswing, the student swings back to an imaginary ball where the heel of the club is ahead of the toe. This exaggerated open clubface position helps the student develop the feel of the amount of arm rotation necessary through impact to square the clubface at impact. After rehearsing the motion, the student attempts to hit the ball, recreating the same feel through impact. To complete the sequence, the student then attempts to create the same impact position while making a full backswing and follow through. After creating the desired ball flight, the student attempts the fuller motion swings with longer clubs while maintaining the shorter motion swings with the eight-iron.

Two Piece Backswing Drill

The “Two Piece Backswing Drill” begins with a teed ball and a six-iron. After addressing the ball with correct posture, the student swings the club back to waist height in the backswing and pauses. At this point, the student notes the position of the club. The toe of the club should be pointing up or slightly favoring the ball side of the shaft, and the shaft should be parallel to the student’s toe line. If this is not the case, the student makes the corrective adjustment and then continues to swing back to a full backswing and hit the ball. Initially, the motion will be somewhat awkward for the student due to the pausing of the swing, but he or she will soon be able to replace this awkwardness with a more fluid motion. The objective of this drill is to help the student create a visual awareness and feel of the correct starting direction of the backswing as well as greater control of the clubface throughout the motion.

Hold The Finish Drill

The “Hold the Finish Drill” begins with a higher lofted club such as a seven- or eight-iron. After addressing the ball with correct posture, the student makes a three-quarter length backswing and hits the ball, stopping the club at waist height in the follow through. At this point, the shaft should be parallel to the target line, the arms fully extended and the toe of the club pointing up. If the student typically has an open clubface at impact, this paused position at waist height in the follow through should be adjusted so that the toe of the club is favoring the left side of the shaft. If the golfer struggles with a closed clubface at impact, the toe of the club at this post impact position should favor the ball side of the shaft. Once the student is comfortable with the motion, length and speed can gradually be added to the backswing with a continued focus on the student hitting that post-impact position described. This drill will help the student develop a greater awareness of the clubface at impact and post-impact position as well as a better feel of his or her arm motion through impact.

Drill with an Aid to Influence Face

Hit the Impact Bag

The “Hit the Impact Bag Drill” begins with the golfer addressing an impact bag with a traditional grip and posture and a mid-iron. From this position, the student swings the club back to waist height and then back to impact with the bag. At this point, the student should have an opposite clubface position to his/her traditional ball flight. If, for example, the student struggles with hitting slices, the impact position at this point should have the clubface closed. Initial swings are made with a seven-iron and should be relatively short and slow while the student develops the feel of the compensative motion. Once the student is able to reproduce the desired clubface position while impacting the bag, a ball should be positioned between the clubface and the bag with the student attempting to reproduce the desired clubface position at impact. Once the feel of compression is established and the student is able to achieve the desired clubface position at impact against the bag, the student attempts to hit a teed ball recreating the motion. Initially, it is suggested that the drill be attempted with a six-iron with longer clubs introduced once the student is able to control the clubface position at impact. This drill will help the student not only influence clubface position at impact but also help him or her develop an individual feel of proper impact.

Curve the Ball Drill

The “Curve the Ball Drill” begins with the golfer positioning a shaft on the ground to represent the target line and an additional shaft positioned vertically into the ground approximately nine feet in front of the golfer. Depending on the curve tendency of the golfer, this shaft could be positioned slightly to the inside of the target line for students who tend to slice the ball or to the outside of the target line for students who struggle with a hook. Starting with slow swings, the student hits the teed ball with an six-iron attempting to start the ball down the target line and curve the ball around the vertical shaft to the left to overcome a slice or to the right to compensate for the hook. If the ball does not curve enough, the student attempts to exaggerate the closed or open clubface being produced at impact until the ball curves the appropriate amount. Initial swings should be shorter and slower than normal and increase in length and speed as the student is able to shape the shot the desired amount. As confidence and control are gained, the student introduces longer clubs and attempts the drill with the ball off the ground. This drill will help the student develop the feel of how they can influence their clubface position at impact.

Swingyde Drill

The “Swingyde Drill” begins with the golfer positioning the Swingyde training aid on the club and addressing a teed ball with a seven-iron. Utilizing a slightly slower backswing pace than normal, the student attempts to position the Swingyde so that it rests against his or her left forearm when the shaft is shoulder height in the backswing as well as at shoulder height in the follow through. Once the student is able to make the correct motion as prescribed by the aid, he or she attempts to hit the ball. To avoid the time and effort required to take the aid off or to put it on, the student switches to a six-iron when attempting to hit the ball without the aid. Eventually, the student alternates to other longer clubs such as a hybrid, fairway wood and driver while alternating swings with the training. This drill will help the student influence the clubface position at impact but also help the student develop a feel for the correct motion of the arms and body through impact.

Drills to Influence Path

Right Foot Back Drill

The “Right Foot Back Drill” begins with the golfer teeing a ball and gripping a six-iron. From a traditional posture and stance width, the golfer slides the right foot back so that the toes of the right foot are even with the heel of the left foot. This exaggerated closed stance will be used during this drill. Beginning with practice swings over the ball to develop the feel of the motion, the golfer attempts to hit the teed ball with a swing that is slightly slower and easier than standard. Due to the extreme stance, the arms will be required to extend through impact and the path to the ball will be from the inside-out. Once the student becomes comfortable with the motion at the slower speed, he or she increases the speed through impact, gradually increasing the speed to their standard speed. Students should alternate clubs throughout the drill. Because of the exaggerated stance, it’s tough to hit balls off the ground, so it’s best to stick to hitting balls off a tee.

Feet Together Drill

The “Feet Together Drill” is helpful with a student who is unable to produce a neutral downswing path through impact. This drill begins with the golfer teeing a ball and gripping a six-iron. Utilizing a traditional grip and posture, the feet should be positioned so that the heels and toes are touching. This narrow stance will be used throughout this drill. Beginning with practice swings next to the ball, the golfer attempts to make as full a swing as possible while maintaining his or her balance through the swing. Once comfortable with the motion, the student should hit the teed ball. Naturally, the narrowness of the stance will occasionally cause the student to lose balance during the swing due to the incorrect path of the club through impact. Once the student has developed a feel for the motion and is able to make solid contact with the six-iron, longer irons, hybrids, fairway woods and the driver should be attempted.

Pump Drill

The “Pump Drill” begins with the golfer addressing a teed ball with a six-iron. From a traditional set-up position, the golfer swings the club back to the top of the backswing, stopping the motion prior to starting down to impact. From this paused position, the golfer swings his or her arms down to waist height, making sure that the arms and shaft of the club are coming from an inside path to the ball. This “pump” should be repeated twice, with the third motion being continued to impact and to a full finish. The goal with this drill is to help the student develop their individual feel of a proper clubhead path to the ball as well as help them recognize when the clubhead path direction is not correct. Due to the stopping and starting of this motion, it is suggested that the student practice this drill initially with clubs such as mid-irons until comfortable with the motion. Longer shafted clubs can be tried, but the student needs to be warned that, while solid contact is not impossible, it may take a few swings to be achieved.

Drill with an Aid to Influence Path

Miss the Object Drill

The “Miss the Object Drill” practice routine begins with an object such as a head cover positioned to the outside of the target line and slightly behind a teed ball. The student begins with easy and relatively short swings made with a seven-iron, attempting to miss the object while hitting the teed ball. As the student develops the feel of what to do in the downswing to miss the head cover, he or she can gradually increase the length and speed of the motion. Once consistently missing the object, the student attempts the drill with different clubs such as longer

irons, hybrids, fairway woods and the driver while trying to accomplish the same goal of missing the object and swinging the clubhead from an inside-to-out path to the ball. This drill will help the student develop the individual feel of a more in-to-out downswing path. In addition, if the student hits the object, he or she learns to recognize the feel of the incorrect motion. If the student tends to swing too much from the inside, the object should be placed slightly ahead of the ball, just outside the target line. In this case, the path will not be able to travel from such an in-to-out path to the ball and must be more neutral.

Swing Over the Shaft Drill

The “Swing Over the Shaft Drill” is typically used to combat the more common out-to-in clubhead path through impact. Initially, this practice routine begins with the student placing a shaft on the ground to represent the target line. A common tool to use is the fiberglass rods sold at local hardware stores. If this product is not available, the student can supplement string connected by two tees in its place. Utilizing a six-iron and a teed ball placed next to the shaft, the student should address the ball with proper posture. Starting with short swings, the student attempts to swing the clubhead on a path through impact that has the clubhead traveling out over the shaft after contact with the ball is made. Along with monitoring the initial starting direction of the ball, the student should also note the divot direction produced by the downswing path. Once the student becomes comfortable with the motion, the swings are increased in length and speed with other clubs introduced as well as shots hit off the ground. This drill will help the student develop their individual feel for the motion required to change the clubhead path through impact.

Starting Direction Drill

This “Starting Direction Drill” is one that can help a student redirect an incorrect clubhead path through impact. This practice routine begins with the student placing a shaft on the ground to represent the target line and a teed ball placed just to the inside of the target line. A second shaft is positioned vertically into the ground approximately nine feet in front of the golfer on the target line. Next, the student hits five to ten shots with a six-iron, determining the relationship of the initial starting direction to the vertical shaft. If the ball tends to start to the left of the shaft, the student attempts to swing to the right through impact and start the ball to the right of the shaft. If the ball tends to start to the right of the shaft, the student attempts to swing to the left through impact and start the ball to the left of the shaft. By initially utilizing a shorter and slower backswing, the student will quickly overcome the downswing path tendency and in a short period of time hit the vertical shaft. Once the student is able to start the ball in the opposite direction of the initial shots, he or she should increase the length and speed of the swing as well as introduce different clubs and the ball hit off the ground. This drill will help the student influence the downswing path and help develop an awareness of the starting direction of the ball.

Drill to Influence Centeredness

Gradual Length Drill

The “Gradual Length” focuses on the elimination of toed or heeled shots at impact. This drill begins with the student addressing a teed ball with a seven-iron with a proper grip and posture for a full swing. Using a shortened backswing, the student attempts to hit the ball in the center of the clubface. Monitoring the contact point between the clubface and the ball, the student adjusts the downswing as needed to hit five shots in a row in the center of the club. Once this goal is

achieved, additional length should be added to the swing (three-quarter length) and the same process followed to create five solid centered hits in a row. Once this is achieved, a full length backswing may be attempted. In all cases, the length of the follow-through should mirror the length of the backswing. The goal of this drill is to help the golfer, through trial and error, develop enough control over the clubhead so that he or she can influence where contact is made on the clubface. Eventually, students should be encouraged to hit these shots off the ground once they are able to create solid contact with shots hit off the tee.

Divot Drill

The “Divot” focuses on the elimination of thin or heavy shots at impact. First, the student addresses a tee (no ball necessary) with an eight-iron and a proper grip and posture for a full swing. Next, the student makes a swing, noting where contact is made with the ground in reference to the tee. Ideally, the divot will be at the tee and travel towards the target. If the divot is not in the correct place, the student should utilize a shorter and slower backswing and attempt to make contact with the ground in the right area. When the divot is consistently in the right spot, the student increases the length and speed of the motion while maintaining control of where the club makes contact with the ground. Once these practice swings are consistent, the golfer attempts to hit the ball, trying to create the same feel of the motion that was made with the practice swings. The goal of this drill is to help the golfer develop enough control over the clubhead so that he or she can influence where contact with the ground is made by the club. Eventually, students should be encouraged to hit these shots off the ground once they are able to create solid contact with shots hit off the tee.

Toe Up to Toe Up Drill

The “Toe Up to Toe Up” drill begins with the student addressing a teed ball with an eight-iron and traditional posture for a full swing. As the student swings the club away from the ball, the club should be stopped at waist height in the backswing. At this point, the shaft should be parallel to the target line and the toe of the club should be pointing up or slightly favor the ball side of the shaft. After the student visually verifies this correct position, he or she swings the club back and through impact, holding the post impact position where the shaft is once again at waist height, the toe of the club is pointing up and the shaft is parallel to the target line. By keeping the clubface square at waist height and the shaft parallel to the target line in the backswing and follow through, the student will have a greater opportunity to have the clubface square at impact, thus improving the centeredness of contact. Initial swings should be relatively slow with contact between the clubface and ball monitored. Once centered hits are consistent, the student increases the length and speed of the motion as well as introduces different clubs while attempting to keep centered face and ball contact.

Drill with an Aid to Influence Centeredness

Outside / Inside Tee Drill

The “Outside / Inside Tee” drill is helpful with a student who is hitting shots off of the toe or heel of the clubface. This drill begins with a teed ball and a tee placed on the outside and inside of the ball. These tees should be positioned so that there is just enough room for the clubhead to swing through impact where center contact with the ball would miss both the outside and inside tees. From this point, the student hits approximately five to 10 shots with a full swing motion and notes if either of the outside tees are moved when the ball is struck. Once a pattern is established

of which tee more commonly is hit, the student attempts to hit the ball and the opposite tee from the one he or she is tending to hit. The first swings in this attempt should be relatively short and slow, so the student is able to control where the club travels through impact. Gradually, the length and speed of the swing should be increased while controlling which tees are hit. Initially, students should practice this drill with an eight-iron and progress to longer clubs hitting balls off the ground. The goal of this drill is to help the golfer develop a feel for controlling where contact is made on the clubface.

Face Tape Drill

The “Face Tape” drill is an effective way to help a student learn where contact is being made between the clubface and ball. This drill begins with the student applying club-fitting face tape to a six-iron. If no face tape is available, the student may substitute brown packing tape as an alternative. Next, the student hits ten shots to determine the most consistent contact point with the ball on the face of the club. Once a pattern is established, the student replaces the old tape with new tape. Making shorter and slower swings, the student attempts to adjust the impact so that the hits are more centered on the clubface. Once this is accomplished, the student increases the length and speed of the swing maintaining the centered impact. Any time the centeredness of contact is lost while utilizing this drill, the student should shorten the length and speed of the swing until solid shots are once again consistent.

Miss the Tee Drill

The “Miss the Tee” drill begins with a teed ball that has a tee placed to the outside and inside of the ball. These three tees should be positioned so that there is just enough room between the outside tees to hit a ball. Using an eight-iron, the golfer starts by making half swings attempting to miss both of the outside tees. Once the student is able to miss these tees, he or she increases the length and speed of the swing to a three-quarter motion. Once success is consistent, the student increases the motion to a full swing at full speed. Once contact is consistently center on the clubface, the student should be encouraged to follow the same routine with a six-iron as well as hitting shots off the ground, recreating the same centered impact while missing the outside tees. This drill will help the student develop control of the club through impact, thus improving the centeredness of contact.

Drill to Influence Angle of Approach

Baseball Swing Drill

The “Baseball Swing” drill begins with the golfer addressing a teed ball with a six-iron. After addressing the ball with correct posture, the golfer lifts the clubhead two to three inches above the ball. From this position, the golfer makes a full backswing and follow through without hitting the ball. Once comfortable with the feel of the motion, the student attempts to hit the ball from the elevated clubhead position above the ball. Initial swings could be hit thin or even topped due to the more shallow approach to the ball versus the steeper motion the student had. Initially, a six-iron is suggested, but the student is encouraged to try the same routine with the other clubs in the bag including a driver. The objective of this drill is to help the student develop the feel of a shallow angle of approach to the ball versus the more traditional steep angle of approach.

Ball Above the Feet Drill

The “Ball Above the Feet” drill begins with the golfer addressing an imaginary ball on an uneven lie where the ball is above the feet. After making a practice swing, the golfer attempts to hit a ball from this uneven lie. As a result of the lie, the golfer will naturally have a more rounded swing, resulting in a shallow angle of approach of the clubhead to the ball. Initial swings could be awkward due to the lie and result in thin or even topped shots. Once comfortable with the feel of the motion, the student should introduce additional clubs such as hybrids and fairway woods. The objective of this drill is to help the student develop the feel of a shallow angle of approach to the ball versus the more traditional steep angle of approach. In addition, the student will gain a better understanding of the influence this type of slope will have on the ball flight.

Uphill Lie Drill

The “Uphill Lie” drill begins with the golfer addressing an imaginary ball on an uphill lie. After making a practice swing, the golfer attempts to hit a ball from this uneven lie situation. To accommodate the lie, the golfer positions the shoulders as parallel to the slope as possible. As a result of the uphill lie, the golfer will have a tendency to stay more behind the ball with the body through impact, as well as create a more shallow angle of approach of the clubhead through impact. Once comfortable with the feel of the different motion, the student introduces additional clubs such as long irons or hybrids, attempting to make the same swing. Initial swings could be awkward due to the severity of the lie, but given a few swings, the student will be able to adjust and produce solid contact with the ball. The objective of this drill is to help the student develop the feel of a shallow angle of approach to the ball versus the more traditional steep angle of approach.

Drill with an Aid to Influence Angle of Approach

Left Foot Up Drill

The “Left Foot Up” drill begins with the golfer addressing a teed ball with a seven-iron. From this position, a small metal bucket (typically used to dispense range balls) is placed under the left foot. Starting with slow swings, the student attempts to hit an imaginary ball without losing balance due to the elevated positioning of the left foot. Next, the student attempts to hit the teed ball while maintaining balance. Once comfortable with the motion and the feel of how the body is staying back and the arms are extending more through impact, the student increases the length and speed of the swing while attempting to maintain balance as well as solid contact with the ball. As confidence and control are gained, the student introduces longer clubs and attempts the drill with the ball off the ground, replacing the metal bucket with a set-up that has the left heel up at address and throughout the swing. This drill will help the student develop a shallow clubhead approach to the ball versus the more traditional steep angle of approach to the ball.

Clip the Tee Drill

The “Clip the Tee” drill begins with the golfer addressing a teed ball with a six-iron. Starting with relatively short backswings, the student attempts to hit the ball without moving the tee from its original position. Once the student is comfortable with the shallower angle of approach to the ball created by this drill, he or she should add length and speed to the motion while still attempting to hit the ball without moving the tee. As confidence and control are gained, the student introduces longer clubs and attempts the drill with the ball off the ground. This drill will help the student develop the feel of a shallow clubhead approach to the ball versus the more traditional steep angle of approach to the ball.

Grip on the Ground Drill

The “Grip on the Ground” drill begins with the golfer addressing a teed ball with a high-lofted club such as an eight-iron. From this position, a golf club grip (minus the shaft) should be placed approximately one foot behind the ball on the target line. Starting with slow swings, the student attempts to hit the ball while missing the grip on the ground. If impact with the grip happens prior to contact with the ball, the student replaces the grip and, if necessary, moves the object a distance that is slightly further from the ball. As confidence and control are developed and the student avoids hitting the object, the grip should be moved slightly closer to the ball a small distance at a time. This drill will help the student develop the feel of an appropriate angle of approach to the ball (a blend of steep and shallow) versus an approach to the ball which is too shallow and bottoms the club out prior to impact.

Drills to Influence Speed

L to L Drill

The “L to L” drill begins with the student addressing a teed ball with an eight-iron. After addressing the ball with correct posture, the student makes a backswing and stops the motion when the left arm is parallel to the ground and the shaft is pointing up. This “L” position created by the left arm and shaft should be held for a moment to allow the golfer to check the correctness of the position. From this point, the clubhead is returned back and through impact and stopped at waist height in the follow through, where the right arm is extended and the shaft is once again pointing up. In both cases, the wrists have been fully hinged in the backswing and unhinged in the post impact position. Gradually, the speed of the motion is increased through impact while the positions are monitored. The overall objective of this drill is to help the student develop a feel of clubhead speed through impact and an understanding of the influence that proper wrist hinge has on the clubhead’s speed through impact. Eventually, the golfer should attempt this drill with longer clubs such as a six-iron and see if he or she is able to carry over the same wrist action to a fuller swing.

Whoosh Drill

The “Whoosh” drill begins with the student addressing an imaginary teed ball with a six-iron. Utilizing his or her traditional backswing, the student attempts to create enough clubhead speed through an imaginary impact so that a “whoosh” sound is created. Once the student has produced this sound, he or she attempts to hit the ball, recreating the same feel of speed through the impact area when hitting the ball. The overall objective of this drill is to help the student develop a feel of clubhead speed and where that clubhead speed is created in relation to the ball position. Ideal practice includes initially alternating between the six-iron and longer clubs such as a hybrid. Eventually, the golfer should attempt the drill when hitting balls off the ground.

Post Impact Speed Drill

The “Post Impact Speed” drill begins with the student addressing an imaginary teed ball with a six-iron. Making a practice swing to the imaginary ball, the golfer attempts to make the fastest part of the swing approximately eight inches after impact. Once the student has developed the feel of the greater clubhead speed post impact, he or she should attempt to hit a teed ball recreating the same feel. The overall objective of this drill is to help the student develop a feel of clubhead speed as well as where that clubhead speed is created in relation to the ball position.

Ideal practice would have the student hitting teed balls, alternating between a six-iron and driver. Eventually, the golfer should attempt the drill by hitting balls off the ground.

Drill with an Aid to Influence Speed

Hit the Tee Drill

The “Hit the Tee” drill begins with the student positioning a tee approximately six inches in front of a teed ball on the target line. Using a seven-iron and a three-quarter length swing, the student attempts to hit both the teed ball and forward tee. Initial swings should be relatively slow and easy, so the student can more easily contact both objects. Once the student has become more comfortable with the motion, the backswing is lengthened and the speed of the motion increased, making sure that with each attempt, both tees are hit. Longer clubs such as a five-iron or hybrid are introduced once the student can consistently hit both objects with the motion. Once the student has become comfortable with the motion, the distance between the teed ball and forward tee is increased to eight inches. Over time, the student should hit shots off the ground and rely less on the ball being teed. The overall objective of this drill is that the student develop a feel of arm extension and clubhead acceleration through impact. Once the student has developed the feel of this motion, he or she should attempt to incorporate the same motion into swings made with a fairway wood and driver. Ideal practice would include alternating between a seven-iron and a teed ball and longer clubs hit off the ground.

Weighted Club / Donut Drill

The “Weighted Club” drill begins with the golfer hitting a ball with a weighted club or a traditional club with a donut weight. Using a proper full swing set-up, the student makes the initial swings relatively slow and easy so that he or she can more easily control the motion as well as make contact with the ball. Once the student has become more comfortable with the motion, the backswing length is lengthened and the speed of the motion increased, ensuring that solid contact is made with the ball each time. The overall objective of this routine of hitting balls with a weighted club is to help the student develop the feel of the proper sequence of the swing through impact as well as the natural extension of the arms created by the weighted club aid. Once the student has developed a feel of this extension, he or she should attempt to incorporate the same motion into swings made with a fairway wood and driver. Ideal practice would include alternating between a seven-iron and a teed ball and longer clubs hit off the ground

Speed Sensor

The “Speed Sensor Drill” begins with the instructor using a speed sensor aid that can attach to the shaft of the club or one that is positioned next to the golfer for measuring the student’s clubhead speed. Next, the student addresses a teed ball with a six-iron. Making his or her normal swing, the student hits multiple shots, monitoring the measurement produced by the speed sensor. Once the average speed is determined with the six-iron, the student attempts to hit the next series of shots, producing a slight increase in speed to the previous measurements. Once an increase in speed is achieved, the student attempts to increase the speed another slight amount with the next series of shots. Last, the student alternates between the three established speeds and determines the influence in overall distance the ball travels as well as what is required in the swing to produce the change in speed. Eventually, the student should alternate to other longer clubs such as a hybrid, fairway wood and driver while alternating swings speed.

Chipping Drills

Right Heel Up Drill

After addressing the ball with correct fundamentals for the chip shot, the student should position his or her right foot with the heel up and the toe of the shoe in contact with the ground. This adjusted set-up is followed by the student hitting shots with different clubs, varying the length the ball rolls. This drill is helpful in eliminating extra hand action during the chip shot and developing the feel of solid and consistent contact with the ball.

Hold the Finish Drill

This drill highlights the finish position of the swing and will help the golfer create the appropriate amount of extension through impact as well as help in the elimination of excess wrist action at impact. After addressing the ball with the correct chip shot set-up, the golfer should make a swing and hold the finish of the motion. After impact, both the left arm and right arm and shaft should be extended with the position held for three or four seconds.

Chipping Drills with an Aid

Tee in Ground Drill

This drill begins by the student positioning a tee four inches in front of the ball on the target line. After taking a proper address position to the ball, the student should swing the club back and through, brushing the grass beneath the ball and also hitting the tee in front of the ball. This drill will help the golfer ensure solid and consistent contact with the ball.

Miss the Tee Drill

The drill begins by the student positioning one tee to the outside of the ball and one tee to the inside of the ball. Using the suggested chip shot set-up, the golfer should attempt to swing the clubhead back and through without hitting the tees. This drill will assist the student in making solid and consistent contact with the ball.

Extended Club Drill

This training aid highlights the use of the golfer's 9-iron or pitching wedge and either a broken shaft or wooden dowel extending from the butt end of the club. From a proper chip-shot setup, the student should attempt to hit a ball making sure that extension does not hit their side after impact. Contact with the body will highlight that there is too much wrist action through impact.

Chipping Practice Games

Vary The Target Practice

After positioning practice balls five to 10 feet from the edge of the green, the student should pick three different targets on the green that vary in length from the practice balls. Using proper fundamentals and mechanics for the chip shot, the student should practice using different clubs and alternating between the different targets. This drill is helpful in developing the feel for the distance each club will roll the ball once it hits the green.

Rope Practice

The practice routine begins with the placement of a segment of string in a six foot circle around a practice green pin. From different angles and distances, the student should hit chip shots using proper fundamentals and mechanics, trying to keep the ball within the confines of the circle. This routine is a great tool in helping the student determine proper club choice from different situations and will help him or her develop a feel for getting the ball within a possible one-putt distance.

Same Pin Practice

This drill begins with the positioning of small piles of balls five, 10 and 15 feet from the edge of the green. Using the same pin as a target, the student should alternate randomly between the small piles, hitting a chip shot followed by putting out the result. This type of practice will help the golfer gain confidence in his or her chipping skills as well as his or her ability to score.

Pitching Drills

Feet Together Drill

After addressing the ball with correct posture for the pitch shot, the golfer should position his or her feet together. From this adjusted set-up, the golfer hits shots, attempting to maintain balance as well as distance control. Initially, shots hit might be thin but, after a few swings, the golfer will become comfortable with the motion and be able to make solid contact. This drill will help minimize the amount of body motion as well as the feel of the correct mechanics of the motion.

Two Piece Backswing Drill

This drill begins with the golfer addressing the ball with a proper pitch shot set-up. From this position, the golfer should swing the club back to waist height in the backswing, where the shaft of the club is parallel to the ground and the toe of the club points up. After visually verifying this correct position, the club should be swung slightly further back and then the ball should be hit. This type of stop-and-go motion will initially be awkward for the student but will quickly become more comfortable.

Toe Up To Toe Up Drill

This drill has the golfer place the emphasis of the motion in two places. First, the golfer in the backswing should attempt to swing the clubhead back to a position that, when the shaft is parallel to the ground, the toe of the club is pointing up. Next, the golfer should swing the club through impact, hitting the ball and attempting to stop the club at waist height in the finish, again with the shaft of the club being parallel to the ground and the toe of the club pointing up.

Pitching Drills with an Aids

Hit the Tee Drill

This drill begins with the golfer positioning a tee four inches in front of the ball on the target line. After taking a proper address position for a pitch shot, the club should be swung back and through, brushing the grass beneath the ball and also hitting the tee in front of the ball. This drill will help the student eliminate any unnecessary wrist or hand action being used to help lift the ball in the air.

Miss the Tee Drill

This training drill begins with the golfer positioning one tee on the outside of the ball and then another tee to the inside of the ball. The width of space between the tees should be slightly wider than the width of the clubhead. After addressing the ball with a proper pitch shot set-up, the golfer should attempt to hit the ball while avoiding the outside and inside tees. If one of the tees is contacted, the student should replace the tee and attempt the motion, again attempting to avoid the tees.

Swingyde Practice

This routine begins with the *Swingyde* being attached to either a sand wedge or lob wedge. Initially, a practice swing should be made with the goal of making contact with the student's lead arm in the backswing and through swing. Next, the student should attempt to hit a ball with the training aid attempting to maintain proper contact between the aid and the lead arm. Third, the student should make the motion without the training aid attached, attempting to recreate the motion made in the first two swings. This training aid is effective in helping the student create the proper amount of wrist hinge and square clubface during the motion.

Pitching Practice Games

Same Pin Practice

This drill begins with the positioning of small piles of balls 20, 25 and 30 feet from the edge of the green. Using the same pin as a target, the student should attempt to hit shots alternating from the various distances. This routine will help the student determine the proper club choice from specific distances as well as help in the development of a feel for the height and roll of each club.

Tough Pitch Practice

This routine requires the student to place a ball in difficult positions around the green. From these positions, the student should attempt to hit the ball using the proper fundamentals and mechanics of the pitch shot. With time the student will develop confidence in his or her ability to get the ball close to the hole or at least on the green, no matter how difficult the situation.

Pitching Mission Impossible

This practice routine begins with the golfer picking a pitch shot situation that would typically not be found during the regular course of play, examples include: ball with obstacle in the way, such as a tree or a ball plugged in a bunker. From this position, the golfer should attempt to hit the shot to a specific pin with the intent of playing the ball out. If the total score is greater than three, the shot should be replayed until a score of two is achieved. During this practice session, at least five of these "Impossible" shots should be attempted with a score of two being the goal.

Bunker Play Drills

Line Drill

This drill begins by addressing a pre-drawn line running perpendicular to the target line. After addressing an imaginary ball (represented by the perpendicular line) directly between the feet and with proper fundamentals for a bunker shot, the student should take practice swings, making sure sand is taken. After making multiple swings, the golfer should determine first that there is a consistent bottom to the swing as well as where the club tends to enter the sand and exit. The

middle point between these two marks will determine the ideal ball position for the student. In addition, this drill is very helpful in helping the golfer develop confidence in the motion.

Two Ball/Three Ball Drill

This drill begins with the student placing two balls in the bunker that are touching each other and are on the target line. At this point, the student should address the balls with a proper bunker shot set-up and attempt to displace enough sand under the two balls so that both are lifted out of the bunker. When both balls are consistently displaced, the golfer should attempt the drill with three balls.

Splash Drill

This drill begins by the golfer addressing an imaginary ball with proper bunker shot set-up. Using the correct fundamentals for the bunker shot, the student should make full swings, attempting to lift a dollar-bill size amount of sand out of the bunker. The key is that the divot created when the clubhead hits the sand is lifted up and out of the bunker on each swing. This drill will help the golfer develop confidence in his or her ability to control the bottom of the swing as well as develop the feel for the amount of motion needed to carry the ball out of the bunker.

Bunker Drills with an Aids

Rope Practice

This drill begins by the student positioning a small segment of string in a six-foot circle around a practice green pin. From different positions and distances, bunker shots should be hit using proper fundamentals and mechanics. With each ball, the student should attempt to keep the ball within the confines of the circle. This routine will not only help the golfer develop a greater feel for the amount and speed of swing necessary to carry the ball the appropriate distance from the pin, but also help the individual in the development of his or her confidence in getting the ball close to the hole.

Tee Drill

This drill begins by the golfer using two tees in place of the golf ball in a greenside bunker. After addressing the ball with proper set-up, the golfer should swing the club back and through, attempting to hit both tees out of the bunker. This drill will help demonstrate how sand lifts the ball up and out of the bunker as well as help the individual gain confidence in the motion and the necessary sand needed to displace the ball from the bunker.

Hit the Board Drill

This drill begins with the golfer placing a short 2x4 in the sand and placing a small amount of sand on top of the wood. After addressing the ball with the suggested greenside bunker set-up, the golfer should attempt to make a swing that lightly brushes the sand off the board. Initial swings should be relatively short and easy with more length and speed gradually being added while maintaining the “brushing” impact with the board. This drill will help the student develop a feeling for the bottom of the swing as well as the amount of swing necessary needed to lift the ball out of the bunker.

Bunker Practice Games

Tough Bunker Shot Practice

This practice routine requires the student to choose a bunker shot situation where there is a high lip and little green to work with. From this specific situation the golfer should attempt to hit five balls within a pre-determined distance from the pin. For example, a high-handicap golfer should be able to get all the balls out of the bunker but not necessarily within one-putt distance. A lower handicap golfer should be able to get one of the five within a six-foot radius of the cup.

Random Bunker Challenge

This practice routine begins with the student throwing five balls into the bunker. From the position the balls end up, the student should attempt to hit the ball out of the bunker. Ideally, the golfer will set a specific goal for the situation. For example, an experienced golfer might determine that three of the five shots should get within a ten-foot radius of the pin. A higher handicap golfer might determine that one of the five end up within ten feet of the pin with the remaining shots close enough for a two-putt. A beginner might choose a goal of getting all five shots out of the bunker and on the putting surface. Once the original goal is made, another situational shot can be attempted.

Difficult Lie Practice

This practice routine requires the golfer to attempt shots that would be considered extremely difficult by most standards—buried lies, balls placed into the side of the bunker, lies where one or both of the golfer's feet are outside the bunker while the ball is in the bunker, etc. Shots should be attempted from these various lies and the results noted. In some cases, even the most skilled golfer will only be able to get the ball out of the bunker and, hopefully, on the green. The goal is for the golfer to become comfortable with hitting shots from situations that mimic the golf course.

Putting Drills

Ladder Drill

The object of this drill is to help the student develop a feel for distance. First, the golfer should place five balls on the putting green. The first ball is to be putted a distance of five feet, the second ball is to be putted a distance of ten feet, and so forth. This process should be continued with the remaining balls spaced five feet apart. A by-product of this drill will be a better feel for the relationship of distance to the amount of swing by the golfer.

Eyes Closed Drill

This drill begins with the golfer finding a level section of the green. From this position, the first ball should be putted a random distance with the golfer estimating the distance the ball rolled and the amount of stroke utilized with the stroke. Then a second ball is putted, attempting to mimic the original stroke in length and speed of motion. The twist is that, with this putt, the golfer's eyes are closed. The cycle of two putts should be repeated until the student is capable of putting the second ball an equal distance to the first ball. At that point, a different distance with the first ball can be attempted. This drill will help the student develop the feel of the motion required to putt the ball specific distances.

Ladder Drill with a Twist

This drill begins with the golfer pacing different distances away from the cup in five foot intervals up to a distance of 25 feet. First, starting at the shorter distance, the student should work his or her way away from the hole to the longer distance, trying to two-putt each ball. Next, the student follows the same procedure but, in this case, he or she should start at the furthest distance, working to the shortest distance. Last, the student should follow the routine of trying to two-putt each situation in a random order.

Putting Drills with an Aid

Club Behind Cup

This routine begins with the placement of a shaft perpendicular to the target line 18 inches behind the hole. The goal is for the student to attempt putts from various distances that have enough speed to either go in the cup or past the hole without hitting the shaft. The initial distance should be from ten feet. Once control over the speed of the putt is maintained, the student should attempt the drill from a greater distance.

Through the Gate Putt

This drill begins with the golfer positioning two tees six inches apart. From an initial distance of three feet, the golfer should attempt to putt the ball through the tees. Once this is accomplished, the student should move further away from the tees in increments of three feet and continue the process, attempting to putt the ball through the tees. When the student shows consistency in his or her ability to putt the ball through the tees from various distances, the tees should be placed closer together in one-inch increments.

Tee to Tee

This drill begins with the golfer positioning a tee in the ground on a relatively level area of the practice green and a second tee approximately ten feet away. Initially, the golfer should putt multiple times back and forth, from one tee to the other attempting to hit the opposite tee. Once successful with hitting the opposite tee, the golfer should move the practice station to an area of the green with there is a greater degree of break to the putts. Variations of this practice would have the student increasing the distance between tees as well as the degree of slope to the putt.

Putting Practice Games

One Station / Multiple Targets

This practice session begins with the student establishing a putting station that allows for putts of varying distances and breaks to be attempted. In random order, the golfer should attempt to putt the ball as close as possible noting any improvement in the first putts over time. Next, the golfer should attempt the same putts but complete the process of putting the original putts out as if they were on the course.

Circle the Hole Drill

In this situation, the golfer should place 10 balls around a single hole at a set distance of 15 feet. Ideally, the variety of putts should have a slight variation of break. Starting at the first ball, the golfer should work his or her way around the hole, finishing out all putts and attempting to two-putt as many situations as possible. As the individual's distance control improves, the set distance should be increased in five-foot intervals.

10 percent Distance Drill

This drill begins with the golfer positioning five balls approximately 20 feet from the hole. From this distance, the golfer should attempt to putt all five balls to within two feet (10 percent of the distance) of the hole. Once accomplished, the golfer should move to a greater distance and follow the same routine until all five balls are within a 10 percent distance of the hole. Once comfortable with this process, the student should add an additional twist of finishing the putts out, starting the drill over if the ball does not end up the appropriate distance from the hole or if the ball is three-putted.

Champion Level Teaching Philosophy

Feel and touch are extremely important in understanding how you record feedback and how to access it at a future time. You can teach feel to your students. Your hands are like antennas on a television. They gather all relevant information and transport it to the brain so that information can be deciphered and categorized for future use. If your hands are not used in a sensory manner (soft receptive grip pressure), then you lose that opportunity to record that experience. If you use your hands to create power and they tighten during impact they lose the ability to sense and gather information. But if you understand that your hands are the antennas to the mind, you can draw from the feedback of your experiences. So every shot—the good, the bad and even the ugly—go into creating and enhancing your feel. Soft hands help you feel every aspect of the swing. They will tell you the weight of the club and its position as it moves around your body and how much power was exerted at impact. The touch and feel that your hands possess is especially important when learning to visualize short-game shots. You cannot be consistently good with your short game unless you use your hands to experience shots and gain feel.

CHAMPION LEVEL PUTTING

Your students should gain confidence with every step of their pre-putt routine that they execute. Teaching your pupils to concentrating on their step-by-step routine, helps them focus their minds time on only the relevant information. By adding this data into his/her putting routine they will be able to displace any misinformation or distractions from their mind. This process will leave them with a clear understanding of how to achieve their goal. If you can instill this philosophy into your students putting, you will help them gain confidence with every repetition.

Teaching your students how to eliminate irrelevant, distracting thoughts in their pre-putt routine will allow them to reach a higher level of putting. The only way to change their self-image, as a putter, is for them to make more putts. Using this system will help them make more putts, which will in turn, raise their standards along with their expectations. When your pupils expect more from their putting, they will feel obligated to practice more. Finally to complete the cycle, when they practice they will become more proficient, and then their expectations will be realized. After they practice they will also feel that they've earned the right to make putts outside their comfort zone. When your students make four or five putts in a row they will not get nervous because they are out of their comfort zone in uncharted territory. The sky is the limit for you and your students. When your students think they deserve to make every putt, congratulations, you are helped them become good putters.

Golf skills should be experienced, taught and practiced in ways and under conditions that make the sport a pleasurable experience. Perfecting technique should not be the initial goal of putting. Juniors learn through playing, where they have the opportunity to explore and experiment with golf skill movements.

The putting stroke is easy to learn and should be taught to your students in the simplest terms. The power or movement that motivates the stroke should come from the shoulders as does the movement that controls line. Rocking your shoulders back and forth or up and down will place the hands in a position to sense and gain feedback to be used for future shots. For example, when your shoulders create power, the roll of your hands becomes to sense the weight of the putter, the length of the stroke, the clubhead speed and striking of the ball at impact. Since hands have such an important role in putting, be cognizant of how your students' hands are working to determine if their natural grip allows their hands to experience the stroke. Repetition of this process through some sort of fun game will help in measuring the amount of power it takes to putt a ball a certain distance. Through this technique, your student will be able to use and apply knowledge they have gained to judge future putts. This process will help them experience a reasonable amount of success and achievement, which establishes a great mental and emotional precedent that will act as a solid foundation to build future fun experiences.

Near Golf Experiences

3 Club Challenge

- Have your junior golfers choose 3 clubs that they feel are the most important to play golf.
- You can use an individual or scramble format depending on the skill level of your junior golfers.
- This game will help your players be challenged to create new shots and think outside the box during play.
- Normal rules of golf apply.

Putting Course

Create your own putting course on the putting green using golf tees and string. You can:

- Create an outline around a practice hole on the putting green by using string; secure it by wrapping the string around a tee and then pushing the tee into the green so that only the top of tee and string can be seen.
- Designate a par for each hole based on its difficulty and length.
- Make a tee box for each hole using tees.
- Putt from the tee box to the hole.
- Any putt that goes outside the strings is considered out-of-bounds; the player takes a one-stroke penalty and putts again from your previous spot.
- Try to shoot even par or better.

Hit, Kick, Throw and Putt

Youngsters enjoy this game that combines elements of baseball, soccer and golf into one exercise.

- Begin by setting a tee used in the baseball-like game of T-ball at the beginning of the hole; hit the “tee shot” by hitting a baseball with a bat toward the green.
- Replace the baseball in the fairway with a soccer ball and then kick it toward the green.
- Replace the soccer ball with a golf ball and now throw or toss the ball towards the green until it lands on the putting surface.
- Now putt the ball in normal golf fashion until it falls into the hole.
- Add up the hits, kicks, throws and putts each hole for your score.

Swings and Throws

- Each player may swing or throw the golf ball at any time;
- The maximum number of times that a golf ball can be thrown on each hole is twice;
- Add up your swings and throws each hole for your score.

Pitch, Pass and Putt

Pitch, Pass and Putt is a fun Near Golf Experience game that relates to other sporting skills challenges and also helps transition the throwing motion to the chipping motion.

- This game starts off the green. The junior will have the option to pitch or pass the ball, depending on their preference.
- During this nine-hole competition, they will have five passes available to use.
- Once the ball is on the green, the junior will then putt to finish the hole.
- Add up your swings, putts and passes each hole for your score.

Speed Golf

- This game starts by deciding how many holes your juniors can complete. It is recommended at this level that they play 6 holes.
- Start at the forward tee.
- As soon as the first ball is struck, the time starts.
- During play, the ball must be holed and no ball can be hit while moving.
- To keep score, the minutes are added to the number of strokes to get a final score for each hole.
- Allow for time between each hole for rest.

Glow Ball

Glow ball or night golf is a great way to have fun and not worry about taking up extra tee times at your golf course. You can utilize most any format and include the entire family! There is an art to setting up a glow ball course. It is suggested that you use the forward tees and light all hazards.

Hybrid Golf

Hybrid golf is a general way of explaining any variation of using standard golf equipment.

- This game consists of playing 9 holes
- Have your junior golfers use a tennis racket or a baseball bat to “tee” off with
- During the play of each hole, they are allowed to throw the ball one time
- This game can be modified for the skill level of the junior golfer

Playing Lesson with Golf Professional

Conduct a playing lesson with your junior golfers at this level. They need to start developing course management skills during play. Show them how to think their way around the golf course to be able to score.

Ping Pong

Ping-Pong helps promote hand-eye coordination. It is a great activity to utilize in down time or during inclement weather. It also gives the participants another sport to look forward to and be competitive with.

Golf Baseball

- Golf baseball is played in any open area using a tennis ball on a range mat propelled by a golf club.
- You can use range bags or plastic range baskets as bases.
- You can modify these rules and structure based on the skill level of your junior golfers.

Golf Video Games

If you can't beat them, join them. Golf video games are a great way to keep golf on your junior's minds. By playing video games they will get an understanding of how to create different ball flights and shots around the course. This is another alternative during inclement weather.

Playing Golf on the PGA Family Course

Continue playing golf by creating a PGA Family Course using the suggested yardage listed below based on each individual's age and ability. You can create a PGA Family Course that is short and beginner-friendly within your existing facility by using PGA Family tee markers or your own facility's tee markers.

Player Suggested PGA Family Course Yardage

1,900 maximum yards for nine holes

Par 3s: 75-115 yards

Par 4s: 185-245 yards

Par 5s: 285-345 yards

2,500 maximum yards for nine holes

Par 3s: 115-210 yards

Par 4s: 211 to 400 yards

Par 5s: 401 to 575 yards

More advanced juniors can begin playing golf using the forward tee markers at your golf facility based on your recommendation.

Suggested Advanced Yardages

Minimum 1,000 yards—Nine-hole course, par-3 layout.

Length: 4,500 to 5,700 yards (18-hole course) for males;

3,000 to 5,000 yards (18-hole course) for females.

Skills Challenges

The intent with the PGA Sports Academy is to get feedback annually from PGA Professionals so that we can continually update and improve the curriculum to help them with their junior programs.

The skill challenges (depending on the level) are meant to assess the progress of each junior in an interactive, interesting and challenging way. For instance, when we assess short game each junior will be given three putts. He then decides what length of putt he should try. The skills score is based on the cumulative length of the putts made, subtracted by the length of the putts missed. During this process each junior is given bonus points if he hands in a correct scorecard.

This process not only works on the junior's golf skills but also helps them practice their adding, subtracting and measuring skills.

It is also suggested that the instructor take part in the skills challenge, not only to monitor the progress of his students but also share in the friendly competition. The juniors also get a chance to learn the risk-reward consequences of their decisions. The skills challenge should be the most enjoyable feature of the PGA Sports Academy. The goal of the challenges would be reached when the juniors have been challenged in an enjoyable competition between themselves and their instructors.

Circle of Threes

Choose a starting position about three feet (one putter length) from the hole. Place a tee at five different locations around the hole. Have your junior attempt to one putt from the different locations. If they miss a putt, they must start over until all of the five putts are made consecutively. To make it harder, move the tees back to six feet and try to make five consecutive putts at that distance.

All Around Up and Down

Have your juniors select a pitching wedge, sand wedge or lob wedge. Have them play nine or 18 shots at different distances and lies around the practice green, trying to get the ball up and down in two strokes. Count the amount of strokes it takes to hole out each ball, par being two on each hole.

Give Me Five

Driver

Choose a target green or target that matches your junior's current driving distance ability and create a line that is 25 yards in front of your maximum driving distance. This line will be called your restraining line. Example: If the maximum distance you can drive the ball is 200 yards, then 175 yards is your restraining line.

Set markers or flags 30 yards apart from left to right. Have your junior hit five drives. Each drive that goes past the restraining line and is in between the markers is worth one point.

5-iron or other iron

Choose a target green or target that matches your junior's 5-iron or other iron's distance. Create a boundary or circle that is 25 yards around the green or target. Have your junior hit five shots. Each shot that lands within the 25-yard target is worth 1 point.

Bunker Shots

Have your juniors use a pitching wedge or sand wedge and hit shots out of a shallow practice bunker. The goal is to land and stop each shot on a green that is 10 feet away. If a practice green is not near the bunker, then try to land and stop the ball between 10 and 15 feet.

Fairway Irons

Have your junior get in the habit of practicing different shots with the ball on the ground aiming at a target 100 to 150 yards away, based on their ability. Try to have each shot land between the target and markers that are set apart the following distances for each yardage:

- 150 yards= 18 yards between left and right marker
- 125 yards= 15 yards between left and right marker
- 100 yards= 12 yards between left and right marker

To measure distances you can use your own pacing for yardage or a measuring tape.

Driving

Set up a practice hole on the driving range. Place targets (flags, cones or another object can be used as a marker) on the range or use existing ones to determine boundary lines. Have your juniors try to have each shot land between the target and markers that are set apart at various yardages. To make this skill challenge harder, place the boundary lines closer together.

Practice Playing on the Range

Set up a practice hole on the driving range. Place targets (flags, cones or another object can be used as a marker) on the range or use existing ones to determine boundary lines. Have your juniors hit a drive within the boundary lines, and then continue to play out the hole by hitting to another target for an approach shot. If they do not hit their shot within the boundary lines on their approach shot, they must chip or pitch the ball to a closer target. They can play as many holes as you would like. Have them switch up clubs on every hole. Make sure your juniors perform their pre and post-shot routine on every shot to replicate playing golf.

CHAMPIONSHIP LEVEL

The Short Game Skills Challenge & Assessments

Rules of the game:

Each player will have 5 chances at putting, chipping and pitching. He may pick whatever distance he prefers under the rules of the game. If the shot is holed then the player receives a bonus of half the distance of the shot added to the full distance of the shot in feet. For example Kirk's first chip was 28 feet. He hit it 4ft from the hole. Kirk then subtracts 4 from 28 and received 22 points for that shot. The player may never pick the same distance twice. If the player completes a correct scorecard that player is awarded another 5 points to his overall total. Below is a scorecard example:

Five (5) Pitch shots – From 50 Ft. and under
Five (5) Chip shots – From 30 Ft. and under
Five (5) Putts No Longer than 10, 20, 30, 40, 50

Full Swing Skills Challenge & Self-Assessment

Rules of the game:

Each player will have 5 iron target shots. Depending on the length of shot he will be able to risk as many points as he is comfortable with. Set the green target up with 2 circles 50 yards away from the teeing area. The outer circle will be 30ft in diameter and the inner circle will be 15 feet in diameter. Set a second green target the same at 100 yards away. For every 10 yardages of the yard contested the player will have 1 yard to bid toward each yard. If the player hits his shot outside the 45 feet diameter he loses the total of his bid. If he hits it within the 45 yard circle he earns his bid amount. If he hits within the 30 ft diameter he earns double his bid amount and if he hits inside the 15 diameter he earns three times the amount of his bid. The same formula is used for the target 100 yards away.

For example:

If the target was 40 yards away from the tee, the player would have four points available to use for bidding, for each shot. So if a player was hitting a 40 yard shot and he was bidding 4 and he hit it within 30 feet his points would be doubled. If the player misses the target completely he loses half of what he bid on that shot. For example, if you bid 4 and missed the green completely he would score a 2.

Full Swing Driving Accuracy Challenge

Rules of the game:

Each player will have 5 driving accuracy tee shots (Any club can be used). Fairway width should be determined by the player group level. Suggested width for Player Level is 40 yards, for Sport Level 35 yards and Champ Level 30 yards. Points are awarded on both their accuracy and length. If player hits within the fairway width they receive 1 point for every 10 yards their ball travels. Flags can be used to designate every 10 yards or PGA Professional can use a rangefinder to accurately determine length. No points are awarded if player hits outside the designated fairway.

PGA Professionals are encouraged to participate and compete with their juniors!

PGA Sports Academy Skills Challenge

The Short Game											Full Swing		Driving Accuracy		Totals
Player	Pitch shots 50ft or under			Chip shots 30ft or under			Putts 30,20,16,10,2 Ft			Short Game Total	Iron Target Shots		Driver Accuracy Shots		Correct Scorecard add 5 pt Bonus
	Kirk	Start (Feet)	Feet From Hole	Score	Start (Feet)	Feet From Hole	Score	Start (Feet)	Feet From Hole		Score	No pts outside 45 ft double bid within 30ft triple bid within 15ft	Iron Shot Total	No points outside fairway 1pt for every 10 yds within fairway	
1st															
2nd															
3rd															
4th															
5th															
Sub Total			Sub Total			Sub Total					Full Swing Total		Driver Total		Total

Player Signature: _____

PGA Prof. Signature: _____

Date: ___/___/___

Sportsmanship, Rules and Etiquette

(The following guidelines and quiz can be replicated and distributed to junior golfers)

Rules

- The two forms of play in golf are Match Play and Stroke Play.
 - Match Play is when each hole is a separate contest. The player that has the lowest score on each hole wins that hole. The player that wins the most holes wins the match.
 - Stroke Play is when the total number of strokes taken for each hole is added up for a score. The player with the lowest score for all of the holes is the winner.
- You must play the ball as it lies. You may not move it to another spot unless the rules allow.
- You have five minutes after you first begin your search to find your golf ball before it is declared lost.

Etiquette

- Before you play a round of golf, you need to call or stop by the golf shop for a tee time. A tee time is a scheduled time that you can start playing a round of golf. You should always arrive at least five minutes before your tee time so that you are ready to begin play on time.
- Each golfer should mark their golf ball with a pen or marker before they play so that they don't hit the wrong ball during play.
- Always rake the bunker after you play a shot from it.
- Write down your scores on the way to the next hole, not while still on the green you are leaving.

When you hit a ball out of play it is called out-of-bounds. A ball is out-of-bounds when all of it lies beyond the inside line of objects such as white stakes, a fence or a wall that marks the playing area.

- If your ball is lost or out-of-bounds, you must add a penalty stroke to your score and play another ball from where you played your last shot.
- If you think your ball may be lost or out-of-bounds, you may play another ball from the place where your first ball was played after you announce that you are playing a provisional ball.
- A hazard is any bunker (area of sand) or water hazard (lake, pond, creek or other body of water) that is on the golf course.
- In a hazard, you may not touch the sand, ground or water with the club before or during your backswing.
- In a hazard, you may not remove natural things such as leaves or twigs but you may remove rakes or other man-made items.
- If any part of your golf ball is touching the green, then your ball is on the green.
- Always mark your ball on the green by putting a small coin or other marker behind the ball. You should mark your ball when:
 - You want to clean the ball, or;
 - Your ball is in the way of another player's putt.

- When you are on the putting green you should remove the flagstick before a golf ball hits it. There is a two-stroke penalty if the flagstick is hit during a putt on the green.

Pace of Play

- When you are playing slowly, or looking for a lost ball, ask the group behind you to go ahead and “play through” so that you don’t slow everyone down.

Sportsmanship, Rules and Etiquette Assessment

Answer the following 10 questions. The answer will be either TRUE or FALSE. Each question is worth 1 point.

1. Before you arrive at the golf course it is best to call or stop by the golf shop to schedule a tee time.
2. Stroke play is the only form of play in golf.
3. It is okay to move the ball if it is in deep grass or a bunker.
4. You have 10 minutes to search for a golf ball before it is considered lost.
5. If you think your ball is lost you can announce that you are playing a replacement ball.
6. A bunker is a hazard.
7. You are allowed to remove rocks or stones from bunkers without penalty.
8. A golf ball is on the green when the entire golf ball touches the green.
9. Always mark your golf ball on the green with a small coin or other marker.
10. There is no penalty if you hit the flagstick when putting on the green.

Champion Level Evaluations

PGA Sports Academy Student Weekly Evaluation Report								
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
Fitness & Nutrition								
Nutrition								
Golf Skills								
Sportmanship								
Etiquette								
Rules								
Safety								
Golf & "Near Golf" Experiences								
Golf & Physical Assessments								
Attitude/Behavior								

Professional Signature: _____

Student Signature: _____

**A player needs to score a Gold to move onto the next level. The player will have 5 attempts.
2 Bronze = 1 Silver and 3 Bronze = Gold**

PGA Sports Academy Student Weekly Evaluation Report									
	Player Level			Sport Level			Champion Level		
	Bronze	Silver	Gold	Bronze	Silver	Gold	Bronze	Silver	Gold
Fitness & Nutrition									
Nutrition									
Golf Skills									
Sportmanship, Etiquette, Rules and Safety									
Etiquette									

Rules									
Safety									
Golf & "Near Golf" Experiences									
Golf & Physical Assessments									
Attitude/Behavior									

Professional Signature: _____

Student Signature: _____

Evaluation

PGA Sports Academy Champion Self-Evaluation Report			
	Fair	Good	Excellent
Fitness & Nutrition			
Nutrition			
Sportmanship			
Etiquette			
Rules			
Safety			
Golf & "Near Golf" Experiences			
Golf & Physical Assessments			
Attitude/Behavior			
Golf Skills			
Putting			
Chipping			
Irons			
Driver			

Professional Signature: _____

Student Signature: _____

Fitness and Nutrition

Junior Development

Childhood development is important to create the motor pathways for adults. These can be classified as windows of opportunity. The first window of opportunity for preventing or correcting physical imperfections is in early childhood, when the child first starts discovering and learning how to move. At approximately two to three months of age, the child may just be rolling from chest to back, but the neural pathways for movement are beginning to form. The next locomotive pathway formed during child development is crawling. The child formulates a system of trials to move from point A to point B. This is the formation of the “true” cross-crawl pattern, as the child’s right arm extends and the left leg extends (the cross-crawl pattern is discussed further later in this lesson). During this crawling action, the child’s abdominal and lower back muscles are forced to stabilize the trunk and assist movement. Theories suggest that this proper crawling pattern is necessary for proper muscular development, and bypassing the crawling stage (that is, progressing directly to walking) eventually delays motor development and creates an inefficient walking pattern.

As children start to move into vertical positions (by holding, pulling, or climbing) and eventually begin walking, they continue to use the cross-crawl patterns of movement. These movement patterns are ingrained in the nervous system and improved throughout the child’s growth and development.

The majority of these progressions are mainly left up to the parents or in many cases the child themselves. The parents need to help encourage and assist the development of the individual through many stages of development. A child who is mainly confined to a car seat or bouncer seat does not roll and crawl around the floor and delays early development. This is a concern for golf professionals as you work with juniors of all ages. The developmental delay may not be noticed until they are around eight to ten years old.

Long Term Athletic Development Model

As the child grows and matures, he or she should perform physical activities on a daily basis. Parents often ask what the best age is for children to start participating in sports or organized physical activity, how often they should participate, and how long the activity should be performed each day. The answers to these questions are summed up in the Long Term Athletic Development model designed by Istvan Balyi. The model centers on the Ten Year Rule and the building of fundamental movement skills.

The Ten Year Rule was created by Anders Ericsson and George Herbert Simon and asserts that, “It takes ten years to excel in any activity.” This is evident in most Olympic athletes, where the amount of time athletes must participate in their sport in order to excel has been between 12 to 14 years.

Fundamental movement skills were first proposed by Dr. Vern Seefeldt from Michigan State University and validated through later research. Seefeldt’s research says that children must complete a level of competency in certain fundamental movement skills if they are to break through a hypothetical proficiency barrier and successfully engage in sport specific skills later in

life. The fundamental movements are an essential component of the long term athletic development and are an entire stage of development (stage II).

There are seven stages in the Long Term Athletic Development model:

1. **Active Start** (ages 0-6)—Primary movement development. Cross-crawl patterns of movement and development. Main focus is keeping active, rolling, crawling, walking, climbing, playground activities.
2. **Active FUNDamentals** (ages 6-9)— Focus on gross motor movements, walking, running, hopping, skipping, jumping, kicking, throwing, catching, striking, skating, skiing, learning by discovery. Speed window, athletic movements, general overall development, locomotion, stability, manipulation, awareness.
3. **Learning to Train** (ages 9-12)—Skill development, transition from fundamental movement skills to fundamental sport skills, participation in multiple sports, patterns of movement, 80 percent training, 20 percent competition.
4. **Training to Train** (ages 11-16)—Speed window, major fitness development stage.
5. **Training to Compete** (ages 15-18)—Sport-specific training, continued fitness development, increased number of competitions.
6. **Training to Win** (ages 18+)—Focus on high performance, year-round training, plan for peaking.
7. **Active for Life**—Better opportunity if physical literacy is achieved before age 15.

Each stage requires that the child achieve a proficiency of movement before he or she can progress to the next stage. In order for the child to achieve his or her full potential, he or she must master the fundamental movement skills associated with each stage. The mastery of the fundamental skills creates the neural paths for future skill development; if the fundamental skills are missed, then the neural path has to be created to learn the new skill. This new skill must be stronger than any old habits, and numerous repetitions are required in order for the new habit to become subconscious. Therefore, a junior who is well versed in golf swing mechanics, but is limited in fundamental motor skills, will not be able to learn new general athletic skills as quickly as an athlete who has achieved proficiency at each level.

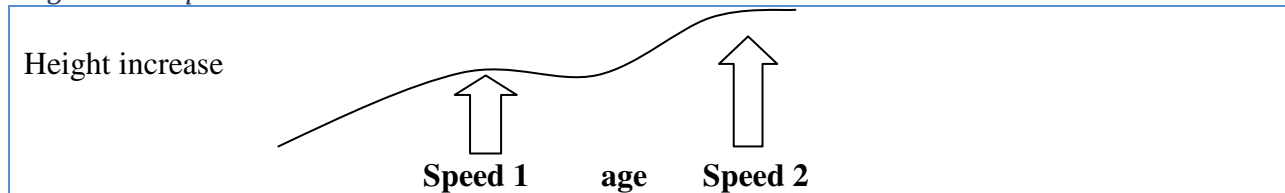
The ages attached to each stage are meant to give instructors a general guideline and could vary by as much as two years in either direction. Because individuals grow at different rates or are born at different times in a calendar year, instructors should base breakdowns of students' abilities on biological development, not chronological criteria.

For example, consider two juniors named John and Steve. John was born on January 3, 2000, and Steve was born on December 3 of the same year, and is also a late bloomer. Grouping these students chronologically would place them in the same event, even though Steve could be as much as two years behind John developmentally. Steve's participation in sports in general could be affected negatively because he is usually picked last for teams, is viewed as inferior by the other students, and could get frustrated with the activity. In reality, if grouped according to fundamental movement skills, Steve could excel in two to three years, and the goal of junior development is to help students achieve excellence at later ages.

Growth Phases

In addition to assessing the student's physical competency when determining the student's phase of development, teachers should also attempt to determine the student's growth phases. Knowing where a student's growth spurts (also called peak height velocity curves) occur help teachers identify proper windows of opportunity, or **speed windows**, to help the student develop. The speed windows occur in the FUNdamental phase and the Training to Train phase, when growth has slowed and nerves and muscles are creating the framework for the student's future development. This window is an illustration of a growth phase and when to incorporate speed training.

Figure 3.x: Speed Windows



Stamina, skill, and suppleness should be emphasized in developmental training while the child is growing rapidly, while speed and strength should be emphasized when a leveling of growth occurs. However, a problem with this theory is that it is difficult to determine when a growth spurt as occurred until after the spurt has finished. Therefore, the ideal training program should incorporate speed, strength, power, mobility, flexibility, and year-round participation in multiple sports.

Think of the junior player as clay to be molded, as they are developing the neural pathways necessary to become excellent athletes. Early specialization creates imbalances and specific muscle movement patterns; the student will perform the trained movement pattern very well but will have a hard time varying from that specific pattern. The more activities the student learns and develops, the wider the variety of movements they can perform at a later age.

Junior Physical Evaluations

There are a variety of performance evaluations that can be used to determine a junior player's physical ability. In order to determine physical ability, the instructor must first determine motor skill ability. Testing the junior player on throwing, striking, running, hopping, skipping, jumping, kicking, and even swimming and bicycle riding is valid, as these are activities most young players should be proficient in by early adolescence. As a junior player grows older, these skills need to be incorporated in order to ensure proper motor skill continuation throughout growth.

Early in the training process, the instructor should have the junior player respond to a questionnaire concerning the student's goals and objectives. At this stage, it must be determined whether it is actually the student's ambition to play golf (as opposed to someone else's ambition, such as his or her parents), as well as how many sports the student participates in. At about age 12, juniors tend to start to determine their sport of choice, as well as whether they are going to be competitive or recreational in that sport. Specialization should not occur until later in the teenage years.

Junior Performance Tests

Evaluating juniors throughout their growth and development helps ensure proper skill progression throughout their golf careers. The instructor can either set up specific motor skill test days or incorporate motor skill training activities into the golf program.

All the testing and exercise activities should have an accuracy and distance component for throwing, striking and kicking. Multiple activities incorporating a variety of implements should also be utilized for a well-rounded athletic development program. Skipping, hopping, swimming and bicycle riding should be evaluated based on movement patterns. The arm and leg cross-crawl pattern of movement is the main criteria for evaluation. Does the student create proper movement with the activities? Does he or she have good body control during skipping, cycling, hopping, and swimming? Does the motion look fluid, or is the student struggling with the activity? These are the questions that need to be answered while watching the movements. The following are several important, fundamental tests for performance that can be used for evaluating junior players:

- **Skipping**—Set up an area about 20 yards wide and ask the student to skip across the area. Evaluate the student's arm-leg action, body control, and skipping action.
- **Hopping**—Set up an area 10-15 yards wide and ask the student to hop across. Evaluate the student's body control, hopping action, arm action, and overall body position during the movement. Do they lose body control while hopping, for example falling forward?
- **Throwing**—Have the student throw a baseball, golf ball, football, and/or big ball for distance and accuracy. Evaluate the cross-crawl pattern of movement. Does he or she throw with the right arm and step with the left leg? Is the upper body rotating to the throwing side during the cocking phase of the throw, and do they follow through after releasing the ball?
- **Kicking**—Have the student kick a football, soccer ball, and/or big ball for distance and also for accuracy. Evaluate cross-crawl movement pattern. Does he or she kick with the right leg and swing the left arm? Does the upper body rotate during the motion?
- **Swimming and Cycling**—These tests may simply involve asking the student if he or she can swim or cycle unaided. Has the student taken swim lessons? Swimming is a large coordinated motor skill, meaning one's extremities are working in sequence to transport oneself through the water. Can the student pedal a bike and maintain balance? Cycling determines balance and control during an activity.
- **Abdominal Stability**—Have the student maintain a front pillar position (Figure 3-1) for as long as possible. The older the individual, the longer he or she should be able to keep the hips in line with the shoulders. The player should be able to maintain this position for at least 30 seconds. The maximum time for this test is 120 seconds.

Figure 3-1: Abdominal Stability



- **Balance Test**—This is a single-leg stance test. Have the individual stand on one leg, placing the other foot on the inner thigh of the leg he or she is standing on. The student should maintain this pose for up to 120 seconds. Also try this same pose with the eyes closed.
- **Standing Long Jump**—Mark a line on the ground, and have the student stand behind the line and jump forward as far as he or she can. To determine the distance jumped, measure from the start line to the heel of the foot that landed closest to the line.
- **Push-Ups**—Have the student lie on the ground with his or her hands placed on the ground, shoulder width apart at chest height, feet together, and toes on the ground. Place a towel or six-inch block under the student's chest. Have the student press up so his or her arms are straight and his or her back is flat, with hips in line with the shoulders. Once the student is at the top, he or she should lower back down, bending at the arms until the chest touches the towel or block, and then rise back up. Repeat until the student can no longer touch the block or press back up. Count the number of completed push-ups.
- **Modified Endurance Test**—The modified endurance test is for determining overall fitness levels. Juniors who are seven years old and younger will run 400 yards and kids who are eight and older will run 800 yards. Use a stopwatch and time the students as they run the total distance.

The abdominal stability, balance, standing long jump, push-up and modified endurance tests are performance tests to determine power, strength and muscular endurance. The numbers and times recorded during these tests should improve with training and sport participation. As the test scores progress, overall golf performance will improve as well.

Designing a Training Program

A proper program progression is critical for a student's continual motor skill and sport skill development. The main components of a physical training program are strength, speed, power, mobility, flexibility, stability, nutrition and recovery.

Components of a Physical Training Program

Strength refers to the increase in one's muscular size and ability to lift or hold more weight. Force times distance equals work. If one increases the amount of work being performed, that increases the amount of strength being generated. Gravity is the resistance that creates the increase in work. An increase of strength allows for an increase in speed and power development. **Speed** and **power** are interchangeable terms that refer to the ability to move an object rapidly. Golf is a game of speed. Individuals need to learn how to train quickly and under control in order to create a greater swing speed. Power is defined as force times distance divided by time.

Strength exercises are often interpreted as power movements. The bench press or squat, for instance, is strength movement, as there is no time limit on the movement. Two examples of power activities are an Olympic lift and the 100-yard dash. The Olympic lift requires a rapid movement of a weight from one's knees to the shoulders (or above the shoulders) as quickly as possible. The 100-yard dash is running from point A to point B as fast as one can.

Flexibility refers to the length of a muscle in a specific movement, such as touching one's toes. The end range of motion determines the movement, and the joint or the muscles involved in the movement determine the end range of motion.

Mobility is the ability to move around a joint. This is similar to flexibility; however, mobility is more of a movement term and flexibility is a static term. The golf swing is a dynamic action—therefore, determining a range of motion during activity is more important than a held position. Think of mobility as a rotational movement or the incorporation of multiple joints in a motion.

Stability is the ability to hold a specific position for a period of time. This is normally associated with the mid-section of the body. Joints such as the hip and shoulder need to create stability throughout movements in the golf swing. Players will tend to lose balance if they are unable to hold a stance for a period of time. In addition, the inability to stabilize on one leg often causes a loss of balance.

Nutrition comes from proper diet. The simple form of nutrition involves creating a balance in food intake, incorporating protein, carbohydrates, fats, fruits, vegetables, and nuts into one's meals. Timing is an important component in creating proper nutrition. Eating every two to three hours brings about continual digestion and full utilization of the essential nutrients in the food. Consuming a protein to carbohydrate ratio of 1-2 after a workout, round of golf or tournament is important to enable the body to replace the lost nutrients and start the muscle recovery process.

Recovery is the most overlooked training component. Juniors often stay up late and end up getting less than the optimal amount of sleep (seven to nine hours per day). They also often have sporadic eating habits, which can decrease the amount of essential vitamins and minerals needed for growth and development. The body builds up muscle, bone and the immune system through the recovery process.

The rest between exercise bouts will also determine the energy system being trained. For example, when training for speed, it is essential to rest 60-90 seconds between sets. When

training for maximal strength or power, it is important to rest two to three minutes between exercise bouts. This allows for optimal recovery of the phosphocreatine system and formation of Adenosine tri-phosphate, or ATP, which is the energy source for one's body.

Energy Systems

The human body has two main energy systems: the anaerobic and aerobic energy systems. The anaerobic system can be broken down into two sub-groups: the ATP-PC system (where PC stands for phosphocreatine), and the lactic acid system (or anaerobic glycolysis system).

The aerobic system requires oxygen for energy, while the anaerobic system does not. The aerobic system is used during sustained activity for at least three minutes, while the anaerobic system is used during activity of less than one minute. The ATP-PC system provides the power for activities that last for less than 10 seconds. The anaerobic glycolysis system is used during activities that last from 10 seconds to about one minute.

There is an energy system continuum that incorporates the three classifications, meaning that each activity has a percentage of involvement throughout the duration of the movement. For example, a long distance runner starts off and requires a bit of the ATP-PC system, then transfers to the anaerobic glycolysis, and finally to the aerobic system. Throughout the run, he may need a boost of power, at which point the ATP-PC system kicks in before the runner returns to using the aerobic system.

The golf swing is less than two seconds and primarily employs the ATP-PC system. The walking between shots, standing, and talking requires oxygen, and therefore uses the aerobic system. The development of the aerobic system is important to aid in phosphocreatine restoration.

For the creation of exercise activities, it is important to understand how the body recovers from certain bouts of activity and how the muscles adapt to training:

- Power movements are best at 1-5 repetitions, with recovery between sets at 2-5 minutes.
- Maximum strength movements are best at 1-3 repetitions, with recovery between sets at 2-5 minutes.
- Strength movements are best at 4-8 repetitions, with recovery between sets at 2-3 minutes.
- Hypertrophy, or increase in muscle size, is best at 6-12 repetitions, with recovery between sets at 60-90 seconds.
- Muscular endurance is best at 12-plus repetitions, with recovery between sets at 0-60 seconds.

These variables are best suited for highly trained individuals looking for optimum training. In optimal training, the fatigue factor and recovery are essential in the development of muscular power and maximal strength. The long rest allows for the replenishment of the phosphocreatine stores and the nervous system. For instance, training with power movements for greater than five repetitions has shown to greatly increase fatigue and potentially increase injury.

The general public will follow more of a muscular retraining program that fits into the muscular hypertrophy and muscular endurance protocol. This higher repetition range allows for myelination of the nervous system to the muscles. This allows the muscles to increase in

strength, stability and activation. The individual needs to relearn how to move specific muscles and muscle groups that are necessary to move the skeletal structure into the proper position.

Designing a Junior Training Program

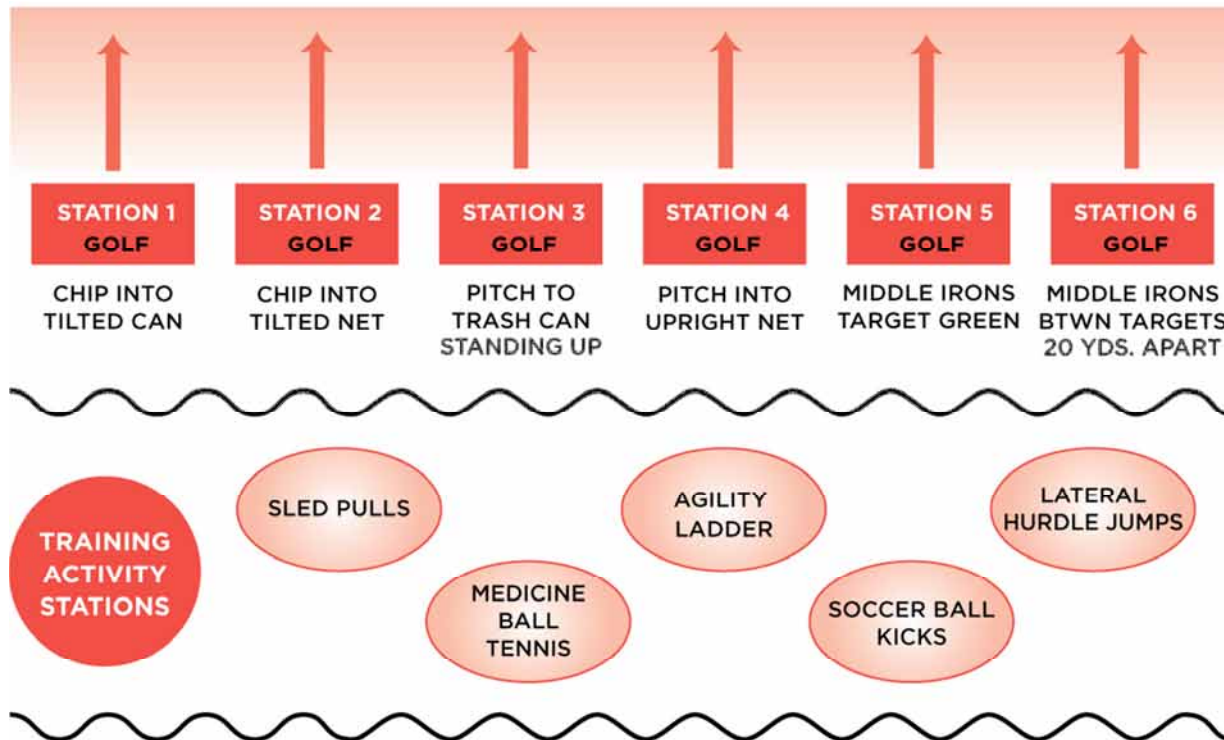
The priority in designing a junior training program is to improve the students' overall athleticism. The instructor must make sure that the students' fundamental movement skills are being addressed or that they are proficient in these movements. Incorporating the movements into the sessions is important throughout the students' development. The individuals will all have phases of accelerated growth that will delay sport skill progress. These are the stages of development where continuing the fundamental movement skill training will allow the individuals to continue to progress appropriately.

The emphasis in the Champion level is continuing with athletic development. Adding in some resistance training is very beneficial for this age group and a number of benefits can be obtained in both strength and muscle size.

Continuing to incorporate games and activities into the training program is very beneficial for Champion level players. Utilizing medicine balls, stability *balls*, dumbbells, and cables are the best way for the Champion player to improve athletic development. However continuing to work them through the fundamentals of training is essential.

The Champion player emphasis is split between golf skill and physical development. Developing speed, power, strength, stability and mobility are essential during the growth and development of the Champion player. Motor skill development should still be emphasized during this time frame to ensure athletic development is continued through the growth spurts.

An example of a training station for a golf camp or school is as follows:



Separating the physical and the golf for this group also works in breaking up the day and help to increase the fun and variety with in the day. It allows for more time for instruction and skill improvement in both the physical and golf training.

The junior development training progressions should follow these guidelines:

- **Stable to Unstable**—The progression should start with a stable base, in which the student has both feet on the ground. With this stable base, the student should first be taught an athletic stance rather than a golf stance, because juniors tend to have difficulty mastering a firm golf stance right away. As was discussed in the Level 1 *Introduction to Teaching and Golf Club Performance* course, the “All or None” muscle theory states that if a muscle fiber does not fire, then the entire muscle group will not fire. Moving a student too quickly to an unstable environment will cause the body to activate the dominant muscles to work to help stabilize the body. The instructor needs to create a firm foundation by training the body to move from an unstable state to one that is more stable as a foundation for the golf swing.
- **Movement Before Resistance**—The junior athlete should focus on the technique of the movement, not how much weight he or she is lifting. Most juniors are unable to produce speed or power efficiently. Teaching the sequence of movement and ensuring proper activation is more important than increasing the amount of weight they are lifting. Students should first master the movement and then gradually increase the weight.
- **Abdominal Control (Stability) Before Variety**—The abdominal and lower back areas are often lacking in strength or stability because of peak height velocity or growth spurts. The “Stable to Unstable” guideline also applies to the abdominal region. In order to allow for proper muscular development, it is important to teach the student how to stabilize and

support his or her own body weight and proper movement through the abdominal region with proper contraction. Additionally, there are a number of juniors who breathe incorrectly. Breathing predominately with the chest instead of the diaphragm causes a disruption in abdominal stability. As an individual inhales, their abdominal area should increase in size, and when exhaling, the area should get smaller, with minimal movement in the chest area.

- **Unilateral Activities:** The majority of sporting activities are performed on one leg or utilizing one arm. The golf swing has a transfer of weight from one side of the body to the other. Proper training should be performed on the single extremity to ensure balanced strength in the legs and arms. Using dumbbells instead of a bar for arm training allows for proper movement and balanced training as well as proper breathing patterns.
- **Athletic Before Specialization:** If a junior is trained as an athlete, this allows for more golf-specific training on the range or course. This is the fundamental movement training of skipping, jumping, hopping, throwing, kicking and striking. There needs to be a mastery of the fundamentals in order to ensure advancement with the specifics of the sport.
- **Proper Firing Patterns:** Cross-crawl patterns of movement can be disrupted with improper training. Additionally, the utilization of barbells and holding one's breath during lifting movements can disrupt cross-crawl firing patterns. The extension of the right leg and left arm are essential components of a proper golf swing. The rotator motion of the golf swing incorporates proper cross-crawl patterns of movement.

These guidelines can also be incorporated into an adult training program. Adults who do not have a previous training history are similar in many ways to juniors who are still developing. These adults may be awkward with the majority of training movements due to the lack of muscular involvement or muscular activation. Training the adult to be a better athlete will help him or her improve their golf swing through increases in core stabilization and hip stability. The training program benefits are achieved from consistency. The more often an individual works out or trains, the more improvement he or she will see in training and golf performance. The workout is a stress that is placed on the body, and the body will adapt to the stress and build muscle, strength, stamina or whatever improvements the student is trying to bring about. This is referred to as the **SAID (Specific Adaptations to Implied Demands)**, which suggests that an individual who only trains his or her lower body will only get stronger in the lower body. This is why it is important to incorporate all aspects of training (strength, speed, power, mobility, stability and recovery) into each training session.

The majority of training program designs will fall in the hands of an exercise specialist, but it is important for the golf professional to understand proper progression and a training program overview to help educate clients and get them the help they need.

NUTRITIONAL PLAN

Establishing a proper nutritional program begins with a consistent eating pattern. The first part of the day should begin with breakfast. The body has been dormant for six to ten hours; however, it has still been active. The muscles, heart, internal organs and brain are still functioning in some capacity. The body is burning calories while sleeping; therefore eating breakfast within an hour

of waking is essential to help fuel your body and replenish the nutrients that were utilized while sleeping.

A plan for the day needs to be established to create the opportunity to eat snacks and meals every two to three hours and drink plenty of water throughout the day. A good rule of thumb is to drink half your body weight in ounces throughout the day.

HYDRATION

Dehydration is counterproductive to athletic performance. Minor dehydration impairs concentration, coordination and reaction time, reduces stamina and compromises the body's ability to resist disease. Dehydration of muscle of only three percent can cause about 10 percent loss of contractile strength and eight percent loss of speed.

Water plays a significant role in the effective functioning of the body in any athletic endeavor. All muscle actions occur because of the cellular reactions that initiate nerve impulses. Water acts a solvent for these reactions to occur. During exercise, the muscles need to contract at extremely high speeds, which is dependent upon precise communication between the nervous system and the muscles. Dehydration of muscles (leading to a sub-optimal balance between the muscle cell and the extracellular compartments) will cause the nerve impulses that contract the muscles to function at an inefficient rate. This will decrease the ability of the muscles to work at a maximum efficiency.

Water is essential as well in maximizing the delivery of oxygen to the muscles; inadequate delivery of oxygen will lead to premature fatigue.

Seventy-five to 80 percent of energy expended during exercise is converted to heat. Water is the primary mechanism for heat removal through dry heat exchange and sweating. During exercise, the heat produced can raise the body temperature dramatically and can cause serious heat injury if adequate body water is not present to control it.

Here are some important guidelines for adequate water consumption:

- The best rehydration fluid is cold water; sports drinks ranging from 6-10 percent glucose are also good.
- Avoid fluids with caffeine or alcohol (energy drinks, coffee, tea, sodas, diet soda, beer, etc.); they increase urine production, which in turn increases dehydration.
- Salt tablets aggravate the condition by drawing more water out of muscle and into the stomach.
- A good general rule is to consume half your body weight in ounces per day.
- Pre-event: Competitors should drink about 16 ounces of fluid about two hours before exercise to promote adequate hydration and allow time for excretion of excess water.
- During event: Athletes should start drinking early and at regular intervals in an attempt to replace all the water lost through sweating. It is recommended that the athlete drink eight ounces (one cup) every 10-15 minutes.
- Post-exercise re-hydration: Individual should drink two cups (16 oz) for every pound lost during the duration of exercise.

MEALS AND SNACKS

Meals and snacks need to incorporate a balanced intake of fruit, vegetables and nuts, lean sources of protein, essential fats and healthy carbohydrates.

INCORPORATE FRUITS, VEGETABLES AND SEEDS INTO EVERY MEAL

All of the foods found in this step have similar properties that are essential to the high level athlete in any sport. Sports have different metabolic demands, but the two main goals of any training/nutritional regimen are the same: maximize performance and enhance recovery to minimize injury.

These foods contain antioxidants, which protect cells from the free radicals that contain by-products that are damaging to the body's metabolism. Antioxidants found in whole food sources are much more effective than those found in vitamin supplements. They also contain natural anti-inflammatory properties. Some inflammation of muscles, tendons and ligaments is inevitable in any high-intensity athletic pursuit. But prevention of *excessive* inflammation, plus treatment of inflammation, are two of the most important aspects of maximizing performance and enhancing recovery. Fruits such as pineapple and papaya have key enzymes that possess anti-inflammatory properties.

The phytonutrients found only in fresh fruits and vegetables serve multiple functions. They contain antioxidants and enhance the body's immune system; they reduce inflammation and augment the effects of Vitamin C; they block the enzyme that raises blood pressure; and they strengthen the vascular system that carries oxygen and essential nutrients to the cells.

Many of these foods are essential for any athlete looking to maintain or lose body fat. The nuts, seeds and oils in this group are high in unsaturated fat but low in saturated/trans fat. Unsaturated fats are good; the body needs and utilizes them without storing them.

These foods are high in Vitamin A, which provides optimal protein synthesis and hormone production; regulates the body's immune system; helps to support tissue maintenance; and helps to maintain optimal vision and bone growth. Particularly good are tomatoes, broccoli, yams, dark salad greens, red/green peppers, spinach, carrots, peaches, cantaloupe, grapefruit, watermelon, mangos, tangerines and Mandarin oranges.

Vitamin C aids in the formation of collagen (a protein that gives structure to muscle); helps reduce muscle soreness and increases regeneration capabilities of the muscles; directly scavenges free radicals; restores Vitamin E to its antioxidant form during periods of high stress (exercise); and aids in the absorption of iron. A suggested supplement of no more than 1 g/day (1000/mg) is ideal. Vegetables high in Vitamin C include cauliflower, green/yellow peppers, asparagus, green beans and new potatoes (w/skin). Among the best fruits are oranges, kiwis, strawberries, pineapples, blackberries, raspberries, honeydew and lemons.

Vitamin E is necessary for proper use of oxygen by the muscles as it aids in the efficiency and regeneration of the muscles; and it prolongs the life of red blood cells, which will improve the

efficiency of the cardiovascular and respiratory systems and allow an athlete to train at a higher level longer.

Key foods in this category include nuts/seeds such as sunflower seeds, peanuts, almonds, cashews, peanut butter, whole wheat flour; avocados; olive oil; and fish such as salmon, trout, clams, oysters and scallops.

INCORPORATE LEAN PROTEIN SOURCES INTO EVERY MEAL

While carbohydrates’ main function is to “fuel” the muscles, protein’s main function is the “rebuilding/growth” of muscles. Many athletes are fooled into thinking that increasing protein intake will always result in an increase in lean tissue. However, the body can only utilize a certain level of protein – any more will either be stored (as fat) or excreted out of the body. Excess protein can also cause the body to become dehydrated.

This rebuilding and growth process spawned by protein is an on-going process; constantly supplying your body with protein throughout the day will maximize muscle growth. It’s important as well to recognize that protein will only be used to build muscle if you eat enough carbohydrate calories to provide your body with energy.

It is important to diversify your protein sources. Many people over-consume animal proteins and either under-consume or eliminate the other types of protein. Even though it is difficult to find options to these other selections (especially the vegetable proteins), it is still important enough to diversify as much as possible. A good breakdown would be 50 percent animal proteins, 25 percent dairy proteins and 25 percent vegetable proteins

FOODS

Item	Serving Size	Protein	Source
Tuna (water packed)	7 oz (1 can)	54 g	Animal
Fish (cod or salmon)	6 oz	40 g	Animal
Turkey (skinless)	4 oz	35 g	Animal
Pork (lean)	4 oz	35 g	Animal
Red meats (lean – 7 percent fat)	4 oz	35 g	Animal
Canned chicken breast	5 oz (1 can)	30 g	Animal
Lamb (lean)	4 oz	30 g	Animal
Tofu (low fat)	6 oz	30 g	Vegetable
Chicken (skinless)	4 oz	35 g	Animal
Cottage cheese (1-2 percent)	1 cup	28 g	Dairy
Ground Turkey Breast	4 oz	22 g	Animal
Raw Kidney Beans	0.5 cup	22 g	Vegetable
Raw Lima Beans	0.5 cup	21 g	Vegetable
Raw Black Beans	0.5 cup	21 g	Vegetable
Raw Pinto Beans	0.5 cup	20 g	Vegetable
Turkey Chili (99 percent fat free)	1 cup	17 g	Animal
Yogurt (low fat)	1 cup	13 g	Dairy
Milk (low or no fat)	1 cup	8 g	Dairy
Boiled beans (kidney, black, garbonzo)	0.5 cup	7 g	Vegetable
Egg (whole)	1 large	6 g	Animal
Deli meats (turkey breast, ham, roast beef)	1 oz	5 g	Animal
Canadian bacon	1 oz	4 g	Animal

Cream cheese (no fat)	1 oz	4 g	Dairy
Egg (white only)	1 large	3 g	Animal

FATS

Fats are important to athletes because their metabolism contributes to energy production during exercise. The biggest misunderstanding athletes have about fat is that too often they try to eliminate fats to keep lean. But by cutting down or eliminating fats, the danger is you might actually over-consume other macronutrients (carbohydrates and proteins). If any macronutrient is over-consumed, it is either stored (as fat) or excreted out of the body.

Fats facilitate absorption of fat-soluble vitamins and provide essential fatty acids. They also help keep glycogen levels at needed levels; performance can decrease if glycogen levels drop too much. Low-fat diets can limit endurance performance at about 65 percent VO₂ max, where many athletes train and they are associated with menstrual dysfunction, anorexia nervosa, migraine headaches, ADHD and ulcers.

Unsaturated fats (good fats) that should be a part of every athlete's diet include olive oil, canola oil, flaxseed oil, soybean oil, nuts and seeds (vitamin E sources). The metabolic pathway with which these are utilized will drive the lipoprotein profile in a positive direction.

Saturated fats (bad fat) come from animal sources like beef. The metabolic pathway with which these are utilized will drive the lipoprotein profile in a negative direction.

Research shows that trans-fat is just as bad as saturated fat. It is usually listed in the ingredients as partially hydrogenated oil or hydrogenated oil.

A good diet includes only All Natural peanut butter. It is higher in fat than other brands but has little saturated fat and no trans-fat. Some brands have a layer of oil on top which needs to be mixed and refrigerated; other brands today are all natural without the layer of oil and are pre-mixed.

Margarine is worse than regular butter because of the processing, but butter itself has a lot of saturated and trans fat. An example of a spread that is low in saturated fat and contains no trans-fat is Smart Balance.

HEALTHY CARBOHYDRATES

Carbohydrates are the primary energy source for human activities and are found in nearly all foods that we consume. The beneficial physical factors for consumption of carbohydrates are increased energy storage in the muscle, protein-sparing effect (for growth and repair of muscle), and prolonged endurance. The popular opinion on carbohydrates is that they will get stored as fat. This is only partially true. Consuming too many of the wrong carbohydrates at the wrong time can lead to the storage of fat. However, learning the right type of carbohydrates to consume at the optimal times can have positive effects on both athletic performance as well as body composition. Elite athletes should have a carbohydrate consumption of at least 60 percent of total caloric intake.

The glycemic index (GI) is a measuring system that helps us determine the type of carbohydrates to consume at the correct times. The GI measures the rate at which carbohydrates are absorbed into the bloodstream. Foods are assigned values relative to the value of the standard food (glucose), which is equal to a relative score of 100.

High-glycemic carbohydrates trigger an immediate rise in blood sugar. These faster carbohydrates should *only* be consumed immediately after exercise or midway through a longer competition/training session (two hours or more). Consumption after exercise aids in the recovery process (immediately replenishing glycogen stores lost through intense exercise), and consumption during exercise provides a quick burst of energy when muscle glycogen stores are being consumed. They should be avoided the rest of the day.

Medium/low glycemic carbohydrates cause a slow, steady rise in blood sugar. These slower carbohydrates should be consumed with each meal throughout the day and are particularly important at breakfast because they replace the blood glucose levels depleted during sleep. Skipping breakfast (or carbs at breakfast) also puts the body into “shock” (starvation mode).

Chronically depriving the body of carbohydrates sends a message to the brain causing a change in basal metabolism. The result of this change is a sparing of fat for survival; which causes your body to utilize energy by breaking down muscle tissue. This is because your body will hold onto the energy source that possesses the highest density of calories (fat is nine calories per gram compared to protein, which is four calories per gram).

PGA Sports Academy Resource Guide

Knowledge of Learning

Long Term Athlete Development (LTAD)

At the heart of the PGA Sports Academy program is Long Term Athlete Development (LTAD). The goal of LTAD in the PGA Sports Academy is to develop each junior's physical and golf skills in an appropriate progression based on their developmental ability and age. Research evidence suggests that there are "windows of opportunity" where accelerated skill development should occur for juniors. It also indicates that if these windows are missed, it can be more challenging to learn complex movement and sport skills that must be developed on the foundation of simple skills because the foundation is not in place.

Developmental age, which refers to the degree of physical, cognitive, emotional and social maturity of a junior, is central to LTAD. Physical developmental age can be determined by skeletal maturity or bone age after which cognitive, emotional and social maturity are taken into consideration. LTAD requires the identification of juniors who mature at an early, average and late rate in order to help design programs that are appropriate for each junior's developmental level. The beginning of the growth spurt and the peak of a growth spurt are significant considerations in training and developing juniors in an appropriate manner. In this respect, developmental age differs from chronological age, which refers to the number of years elapsed since birth.

Developmental Approach to Learning

The learning approach of The PGA Sports Academy is to have juniors learn a variety of fundamental movement skills that are appropriate in relation to each junior's developmental level before learning more complex movement skills such as those found in golf and other sports. The ages of about 2-6 years are critical for developing a foundation of fundamental movement patterns and skills (e.g., walking, running, jumping, hopping, skipping, throwing, swinging, striking), which youngsters of about seven years of age and older can use as a foundation to learn more complex movement skills such as those found in golf and other sports.

This important foundation is not developed through specialization, where youngsters practice and play only one sport. It is developed by having juniors at early ages (2-6) experience, discover and learn a variety of fundamental movement patterns and skills that capitalize on their interests and are introduced through games and guided discovery in a fun environment. Having this foundation enables juniors to more easily learn complex movement skills such as those found in the sport of golf when they are older (about the ages 7-12). Juniors from the ages of about 7- 12 are encouraged to experience and learn a variety of movement and sports skills before specializing in any one sport such as golf. There is ample time for juniors to begin to specialize in one sport when they are about 13-14 years old.

Readiness for Learning

Juniors vary widely in their readiness to learn movement, golf and other sport skills. Alert teachers, coaches and parents will often sense when the time is right because juniors have their own special ways of letting them know when they do or do not want to learn something. When teachers, coaches and parents think a junior is ready to learn certain movement and golf skills, it is important for them to capture the moment and provide the opportunity and learning

environment needed to acquire the skills. Indeed, their major challenge and responsibility is to provide assistance, guidance and instruction (for older juniors) when it is needed.

Juniors are ready to learn golf or any sport or motor skills when they possess the minimum abilities (cognitive, emotional, physical and social) needed. The abilities they possess at any given age depend on their level of development, which is a function of their prior experiences and rate of maturation. Prior experiences and rate of maturation differ among juniors which is why

- Juniors are at different developmental levels and,
- All juniors are not ready to learn the same golf skills at the same chronological age.

Juniors will not learn golf or any sport skills effectively before they are developmentally ready. Juniors must be capable cognitively, physically, emotionally and socially to effectively learn the movement or sport skills, and they must have the necessary prior experiences (including learning), or they will not effectively learn the movement or sport skills presented to them.

What does the Academy do when juniors are not ready to learn the movement or sports skills presented? The Academy modifies the movements, skills, equipment, game or activity in relation to each junior's developmental level so that he or she can effectively learn. Movements and sport skills that are too complex for the junior to learn are modified and made less complex. Equipment such as golf clubs, balls and targets are modified so that they are developmentally appropriate. The Academy also makes the learning interesting and fun.

Science provides us with no precise laws to determine when each junior is developmentally ready to learn various movement and golf skills, but LATD and determining physical developmental age is a great place to start along with knowing the developmental characteristics of juniors in various chronological age ranges. Some typical developmental characteristics are as follows:

Early Childhood 2-6 years—*The Play and Exploration Years:*

- Very curious and love to play, explore, discover and experiment; short interest (attention) span;
- Ideal period for learning a variety of fundamental movement patterns and skills on which more complex skills can be built later;
- Marked individual differences among juniors with regard to their readiness to learn and ability to perform various movement patterns, skills and games because they all are at the same level of development;
- Play alongside, but independent of others early in this period and move to playing with others later in this period;
- Growth rate of upper body slows down, but length of the legs increases rather rapidly so that by about age 6 the junior's overall appearance and proportions are similar to an adult;
- Fine manipulative skills are still difficult to perform proficiently near the end of this period;

- Boys and girls display similar movement development patterns and capabilities;
- Social behavior is not always exemplary and youngsters must be taught the right ways to behave, such as sharing and waiting one's turn;
- Understanding improves during this period, but they are not able to generalize much of reason logically on a consistent basis; by age 6, most juniors understand simple concepts and enjoy engaging in imagery;
- Some juniors who are more developmentally advanced can learn complex skills such as a golf swing, dribbling a basketball and riding a bicycle;
- Learning environment should be individualized in relation to each junior's developmental level;
- Emphasis should be placed on guiding the junior through fun activities and games to discover how to perform desirable movement patterns and skills rather than using formal instruction.

Late Childhood 7-12 years—*The Sampling Years*:

- Ideal period for learning golf and other sport skills;
- Period is characterized by relatively slow and constant growth that ends with a pubescent growth spurt, at which time differential growth rates and gender-specific growth become more evident;
- By about nine years of age, boys and girls begin to prefer separate groups;
- Girls reach puberty before boys and they prefer more segregation in their play activities by about ages 11 and 12 years;
- Gender differences in growth that influence performance are evident (e.g., greater strength and endurance of boys begins to become evident during late childhood);
- By about the age 12, juniors have achieved about 85-90 percent of their potential speed and mobility;
- Hand-eye and body coordination, strength and endurance improves during this period;
- Growing interest in improving their performance of golf and other sport skills;
- Competitive spirit tends to be strong ; juniors, especially those between the ages of 9-12 years, love the challenge of races, physical stunts and testing themselves in various physical activities and games;
- Individual differences in ability to learn and perform various skills and play the game are evident due to differences in developmental levels;
- Peer group pressure for conformity is evident during this period and can affect a junior's attitudes, level of aspiration, self concept, self-esteem, decisions and behavior;
- Juniors in this age range tend to judge each other based on their abilities, skills and achievements;
- Youngsters at this level understand the need for practice, especially later in this age range;

- Learning environment and skills to be learned should be individualized in relation to each junior's developmental level;
- Emphasis on guiding juniors through fun activities and games to discover movement and golf skills during the first few years of this age range instead of using formal instruction, lessons and structured practice, which can be used more effectively later in this age range;
- They are capable of specializing in this age range, but it is not recommended—learning a variety of sports skills lays a broad foundation for future specialization in golf or any other sport.

Adolescence 13-17 years: *The Specialization Years:*

- Ideal period for specializing in golf or any other sport and it is not too late to begin to learn a new sport such as golf;
- Period of rapid physical growth and development of secondary sex characteristics relating to puberty;
- Physical development may plateau and be reflected in skill performance;
- Some leveling off in balance, coordination and/or endurance may be evident as they progress through this period;
- A rapid and marked gain in strength for males as compared to females as they progress through this period;
- Noticeable individual differences in learning and performance due to gender differences, growth and maturation rates, and prior experiences;
- Interest (attention) span is much longer than in late childhood;
- Competitive spirit in most adolescents is quite strong;
- Substantial improvement in social maturity beyond that of late childhood;
- Very peer-oriented and peers greatly affect their attitudes, self-esteem, self-concept, level of aspiration, decisions and behavior;
- Very interested in learning to proficiently perform golf and other sport skills, and play sports skillfully, especially in competition;
- This age range is appropriate for more formal instruction, lessons and structured practice.

Effective Conditions of Learning

The following learning conditions are considered to be effective for learning and the development of juniors. These conditions are central to The PGA Sports Academy Program.

1. Individualized Learning Experiences and Skills

- Learning opportunities and experiences are individualized in relation to each junior's level of development, interests, needs and learning style.
- A variety of movement and golf skill experiences progress from simple to complex and from part to whole in relation to each junior's level of development.

- Emphasis is placed on each junior's own learning progress rather than comparing his or her progress with that of others.

2. Learning Environments

- Juniors are guided by a qualified teacher in an understanding, supportive, empathetic, sensitive and patient manner to learn effective ways of moving to perform movement and golf skills, and play the game.
- Juniors are treated with dignity and as children rather than as miniature adults.
- Juniors are appropriately challenged to acquire movement and golf skills so that they can achieve a reasonable amount of success and have fun when they are engaged in the learning process.
- Movement activities are experienced and golf skills are practiced under conditions that make learning a safe, satisfying, pleasurable and fun experience.

3. Effective Learning Environments

- Equipment, facilities, skills, games and activities are developmentally appropriate and safe.
- Learning is goal-directed. The goal of a movement activity or experience, skill or game must be understood by the juniors participating and they must be motivated to achieve it for effective learning to occur.
- Learning a new golf skill begins with a general idea of what to do and how to do it. Juniors are encouraged to try to perform the skill and discover for themselves what happens. They will then be ready to accept guidance and feedback about how to improve their performance.
- Relatively free and flexible learning environments are maintained for acquiring new golf and movement skills. Some amount of experimentation or trial and error learning in a relaxed and understanding atmosphere enhances the learning of new golf and movement skills.
- Relevant, constructive feedback about skill performance is provided when needed. This feedback is essential for learning not only because it provides a basis for making corrections, but because it can enhance juniors' motivation to learn.
- Each junior's movement and golf skills are not excessively analyzed during learning. It is quite difficult for juniors who are learning new skills to truly understand many of the details and subtleties of complex movement patterns and associated verbal instructions or analyses.
- Juniors have a lot of energy and the need for vigorous physical activity. The learning environment must accommodate this need with a variety of goal-directed movement games and activities that are fun to perform.
- Time spent on trying to learn each new movement and golf skill is partly determined by each junior's motivation level to continue. If the junior loses interest in the skill, he or she will not learn effectively.
- Each learning session is appropriately spaced with rest and water breaks.

- Learning sessions often involve different stations of fun movement activities, skills and games. After spending an appropriate amount of time at one station, the juniors rotate to another until they experience each station.
- Juniors are engaged in performing the movement activities, skills and games during each learning session with no wasted time standing around or in lines waiting for a turn or listening to a teacher talk too much.
- Learning sessions provide all juniors with an equal opportunity to engage in the movement and golf skills that are developmentally appropriate for them to learn.

Knowledge of Teaching

Player Level

Children in the Player level of development will benefit most by participating in a variety of sports and activities, rather than being encouraged to focus exclusively on golf. Because of the rapid change in physical and social development at this level, combined with varying interests, one can expect a large variation in the amount of time children will choose to engage in various activities. One fact continually emerges: contrary to popular belief, “professional-like” training at this early stage is not likely to develop elite players. To the contrary, sampling a large number of activities will not only allow children to identify the activities for which they will have the greatest interest later in life, but the variety of activities will make them better rounded athletes and people. The primary motivating factor for activity selection at this stage (sports included) is social interaction. Kids at this stage choose their activities primarily to be with their friends. The interest, excitement and enjoyment they find in the activity are important as well. It behooves the golf professional to design activities to meet the needs and interests of children at this stage by filling programs with activities that are interesting, enjoyable, stimulate excitement, and provide for a great deal of social interaction.

Player Level Teaching Strategies

Rather than the traditional skill instruction of explanation and demonstration followed by drills, children at this level respond to the simplicity of *playing*, or “deliberate play” as learning specialists say. This concept will prove more useful for stimulating both the child's enjoyment as well as teaching fundamental rules, skills and etiquette. Play incorporates games that are modified from the traditional rules of golf. Rules are adapted to increase the inherent enjoyment of golf and can be set up and monitored by the children as well as adults. An example of a deliberate play golf game may require the juniors to chip a ball from a “tee box” set next to a practice green, and then putt until the ball is in the hole; setting up a series of nine or 18 holes would constitute a “round of golf.” Designing and incorporating a set of deliberate games should represent the main activities for a junior program at the Player level.

Offering children tips to improve technique as they play is appropriate, but the majority of time a child is in a player level should be devoted to deliberate play. Children respond best to positive feedback and encouragement at this level. Congratulating a child on a good shot or exhibiting

proper etiquette will reinforce the action as well as provide encouragement for the child to continue in golf.

Children at this level learn best from experience and from guidance and demonstrations from peers and knowledgeable coaches. Therefore, the games should be supplemented with guiding advice to improve skills, on-course decisions and understanding of rules. Brief demonstrations of key skills (putting, chipping, pitching and full swing) will also be useful, but children will learn these best if they are kept short (two to three minutes) and interspersed regularly throughout their game play.

Sport Level

Children begin seeing themselves as “golfers” at the Sport level. Before, golf was just something they did or played with their friends. Now it is becoming part of their identity. This does not mean that their life now revolves around golf or that golf is a fundamentally important part of their identity. Rather, children at this stage will begin identifying with others in and around golf. They will have favorite players, establish meaningful relationships with teachers and others in golf, begin to dress like golfers, and most importantly to the purposes of this program, they will want to devote increased time to golf while decreasing time devoted to other activities, particularly other sports. They do not exclude other sports or activities but simply have golf high on the preference list of activities.

Sport Level Teaching Strategies

Critical for children to advance to the sport level is having positive experiences with their golf instructors and coaches. This will be a major factor in their selection of golf as a primary sport. Specifically, children who move to the sport level view their golf instructors as supportive, encouraging teachers and having a strong concern for them as people. The child sees his or her golf instructor as a positive role model, someone who provides enjoyable and rewarding experiences and is supportive of and interested in all aspects of the child's life. Children seldom move to this stage of development when they encounter teachers who will like them based solely on the child's athletic success or potential.

A teacher can hold high—yet reasonable—expectations for the child's behavior and effort toward developing themselves as a player. The single most important characteristic a child looks for in a teacher at this stage of their development? Fairness. Like most people, a child at the Sport stage wants to be appreciated for who they are and simply treated fairly. In practical terms, this means that while you cannot treat every child the same because of the uniqueness of each individual, you can and should treat behavior in the same way. In other words, if one child is penalized for being late to the program, every child who is late should receive the same penalty. Likewise, if a child receives an award for winning a competition, every child who wins a similar competition should receive an equivalent award. Inconsistency is the root of unfairness when working with children.

The role of the golf instructor at this level changes somewhat. While the primary role at the player level is one of recreational coordinator with some instruction, now the emphasis shifts to more instruction with some recreational activities. This does not, however, mean that the PGA professional adopts the role of high performance coach. Rather, teaching children at the Sport

level means providing more information about skills and rules, offering constructive yet fun practice activities, and offering mostly positive feedback on what the children are doing correctly; some corrective feedback is also helpful but should not be the main course of instructional feedback. Telling children what they are doing right will encourage children to repeat the correct aspects of their skill performance. When a technical error is detected and appears to be a pattern in the child's skill, rather than telling them what they are doing wrong, offer them information what will improve their performance. It seems like a minor point in teaching, but to the child it has large implications. Telling a child they are doing something incorrect is equivalent to telling them that they are poor performers. Offering some tips to improve conveys the message that you believe they are on the path to good performances.

Children at the sport level will still be looking to play more than practice, but they will begin to see that good instruction and purposeful practice will improve their game play and thus increase their enjoyment of golf. The level of play can begin to shift from deliberate play that has instructional purpose to play that has a greater competitive emphasis. At this stage, a balance between the two is best for most children. The children themselves will let the instructor know when they want more competitive play. The instructor should think of instruction as supplemental to golf game activities in sport level programs.

Because the children now identify themselves as “golfers,” they are willing and interested in becoming more immersed in the sport. Therefore, the program emphasis in terms of both content and instructional style should shift a bit. In terms of content, while at the Player level the content was comprised largely of games emphasizing the enjoyment and excitement of golf, at this level a great amount of time should be devoted to skill and knowledge development. The games used in the Player stage can now be supplemented with brief instructional lessons (10-20 minutes) and skill practice. Proper skill technique should be emphasized at this level so that the player develops sound skills. Attention should also be given to a wide variety of golf skills (e.g., putting, pitching, chipping, full swing, bunker play). This will not only insure that the child develops a full range of golf skills, but having variety in instruction will fuel the child's interest in the sport. Practice activities will be most effective if they have a game-like, play quality to them, rather than hours and hours of structured repetition.

At this stage it is important for the child to begin learning the rules of the game as well as course management, strategic thinking, equipment selection, etiquette and safety. Again, the level of interest and commitment to the sport leads to a natural curiosity on the part of the child to learn more.

Children that reach the sport level will have the desire to be involved in year-round golf programs. This means in the off-season they will still be interested in golf related activities such as indoor practice (if weather prohibits playing or practicing outdoors) and other indoor related golf events (e.g., movies, equipment demonstrations and rules competitions).

Champion Level

Juniors who have advanced to the Champion level have begun to devote a significant amount of time to the game of golf at the exclusion of other activities. Golf is now their sport of choice.

Golf has become a major part of their life alongside time with family, friends and school. The child has made a personal commitment to move to the elite level in golf performance. The definition of an *elite* player may vary from child to child or program to program, but normally this means a competitive level in junior golf, or perhaps competing on a school team. Aspirations for a college scholarship or to become a professional may also enter the child's mind and conversations at this point. If these discussions are initiated by parents (and they often are), it does not necessarily mean the child is committed to the Champion level. Parents' aspirations should not overpower the child's aspirations or goals.

Champion Level Teaching Strategies

To reach the Champion level, the child has passed through the Player and Sport levels of the PGA Academy program. They have accumulated a significant amount of playing experience and knowledge and should have a sound collection of golf skills. Reaching the Champion level implies that juniors understand and are willing to commit to sustained and deliberate practice of key golf skills, increase their knowledge of strategy related information (e.g., mental skills, course management, rules, tournament preparation), and engage in competitive golf tournaments. Therefore, the role of the golf professional shifts once again. The PGA professional at the Player level is a director of recreation; at the Sport level he takes on the primary role of instructor; and now at the Champion level, he assumes the role of competitive coach.

In the capacity of the coach, the primary activities of the golf professional are to guide the junior in designing and carrying out a long-term player development program. Goal setting, determining what and how often to practice, assisting in the selection of tournaments to enter, analyzing tournament performance and identifying benchmark measures are all duties undertaken by the professional in the role of coach at the Champion level.

The coach supervises practices, offers instruction when needed, serves as sport psychologist, insures the proper equipment is being used and reviews playing strategies. The coach-player relationship is one of partners in decision-making. For a player to be successful at the Champion level, they must begin to be the primary decision maker when it comes to determining their pathway to performance success. Not every player will be the same, have the same goals or respond to coaching in the same way. Therefore, for a player to develop to their fullest capacity, the coach must serve as a knowledgeable resource and guide, not a dictator or a navigator of the player's future. To be successful, the player must feel responsibility for their success and ownership for the outcomes of their performance.

Often at this level the parents are equally invested in the success of their child. The parents have sacrificed significant time, expense and resources to the sporting aspirations of their child. Few parents are golf professionals and therefore do not have the training, knowledge, skill or experience of a PGA professional when it comes to developing players. The parent is, and should be, a significant influence in the life of their child. It's important for the golf professional to establish a mutually supportive relationship with the parent. The parent will need assistance and guidance in their role as a primary support person in the child's future. A good golf pro will provide much assistance to the young golfer and his parents while recognizing the fact that it is the parent-child relationship that is the important relationship.

PGA Professionals have varying clientele with different needs. The sample schedule gives you the power to select the provided activities that best fit your program by means. Appropriate activities are listed for each category within the levels (Player, Sport and Champion). This method supports you with designing a fantastic program to develop your junior golfers.

Sample Schedule

	Monday	Tuesday	Wednesday	Thursday	Friday
	Player drop off and staff meet and greet	Player drop off and staff meet and greet	Player drop off and staff meet and greet	Player drop off and staff meet and greet	Player drop off and staff meet and greet
	Fitness and Nutrition	Fitness and Nutrition	Fitness and Nutrition	Fitness and Nutrition	Fitness and Nutrition
	Golf Skills and curriculum	Golf Skills and curriculum	Golf Skills and curriculum	Golf Skills and curriculum	Golf Skills and curriculum
	Hydration and Sun Care Break				
	Golf Skills and curriculum	Golf Skills and curriculum	Golf Skills and curriculum	Golf Skills and curriculum	Golf Skills and curriculum
	Lunch	Lunch	Lunch	Lunch	Lunch
	Sportsmanship, Etiquette and Rules				
	Golf and Near Golf Experiences	Golf and Near Golf Experiences	Golf and Near Golf Experiences	Golf and Near Golf Experiences	Golf and Near Golf Experiences
	Golf and Near Golf Experiences	Golf and Near Golf Experiences	Golf and Near Golf Experiences	Golf and Near Golf Experiences	Prepare Student Evaluation Reports
Optional Junior League					

Player Options

Fitness and Nutrition	Golf and Near Golf Experiences	Golf Skills	Sportsmanship, Etiquette, Rules and Safety	Optional Junior Leagues
<ul style="list-style-type: none"> -Football throw -Jump rope -Balance boardwalk -Medicine ball throw -Beanbag toss -Polo striking -Baseball strike -Forward hurdle jumps 	<ul style="list-style-type: none"> -Putting course -Hit, kick, throw and putt -Swings and throws - Pitch, pass and putt -Hybrid golf -Glow ball -Practice with Golf Professional -Golf Baseball -PGA Family Couse 	<ul style="list-style-type: none"> -Club fitting (putter) -Risk - Reward skills challenge (assessment) -Goal is the hole -Go low putting -Chipping -Putting -Full swing 	<ul style="list-style-type: none"> -Demonstrate sportsmanship, etiquette, rules and safety -Fun assessment -Ask the Pro/ Story time -Watch safety videos -Safety update <ul style="list-style-type: none"> -Dehydration -Sun safety 	<ul style="list-style-type: none"> -Glow ball -Parent-child scramble -Build your own putting course -Snag/Tri-Golf Fun Tournament
Rainy Day Options	Rainy Day Options	Rainy Day Options	Rainy Day Options	
<ul style="list-style-type: none"> -Discuss proper eating habits before and after golf -Discuss proper hydration methods for golf 	<ul style="list-style-type: none"> -Ping pong -Golf Video Games -Drawing and creating a golf course 	<ul style="list-style-type: none"> -Indoor putting 	<ul style="list-style-type: none"> -Sportsmanship, etiquette, rules and safety videos and stories 	

Sport Options

Fitness and Nutrition	Golf and Near Golf Experiences	Golf Skills and Curriculum	Sportsmanship, Etiquette, Rules and Safety	Optional Junior Leagues
<ul style="list-style-type: none"> -Baseball striking -Vortex throwing -Sled pulls -Hurdle jump forward -Soccer dribble through cones -Medicine ball deep squat -Medicine ball lateral throw -Medicine ball t-balance -Frisbee throw to buckets -Lateral hurdle jumps 	<ul style="list-style-type: none"> -Scramble -Putting course -Hit, kick, throw and putt -Pitch, pass and putt -Hybrid golf -Glow ball -Play with Golf Professional -Speed golf -PGA Family Course 	<ul style="list-style-type: none"> -Custom club fitting (full set) -Video lesson and assessment -Risk – Reward skills challenge (self-assessment) -Pre-shot routine -Chipping -Pitching -Putting -Irons -Woods -Bunker play 	<ul style="list-style-type: none"> -Applying the RES to golf (role playing) -Watch safety videos -Ask the Pro -Safety update 	<ul style="list-style-type: none"> -Speed golf -3 club challenge -Best Ball -Shamble -Ryder Cup Challenge matches
Rainy Day Options	Rainy Day Options	Rainy Day Options	Rainy Day Options	
<ul style="list-style-type: none"> -Indoor stretching exercises -Provide healthy options -Create daily nutritional plan 	<ul style="list-style-type: none"> -Drawing and creating a golf course -Ping pong -Golf video games 	<ul style="list-style-type: none"> -Indoor simulator -Assessing video lesson 	<ul style="list-style-type: none"> -Sportsmanship, etiquette, rules and safety videos and stories 	

Champion Options

Fitness and Nutrition	Golf and Near Golf Experiences	Golf Skills and Curriculum	Sportsmanship, Etiquette, Rules and Safety	Optional Junior Leagues
<ul style="list-style-type: none"> -Sled pulls -Medicine ball tennis -Agility ladder -Soccer ball kicks -Lateral hurdle jumps 	<ul style="list-style-type: none"> -3 club challenge -Scramble -Speed golf -Putting Course -Hit, kick, throw and putt -Swings and throws -Pitch, pass and putt -Golf baseball -Playing lesson from Golf Professional -PGA Family Course 	<ul style="list-style-type: none"> -Video lesson and assessment -Custom club fitting (full set) -Skills challenge (self-assessment) -Pre-shot routine -Post shot routine -Chipping -Pitching -Putting -Irons -Woods -Bunker play -Specialty shot <ul style="list-style-type: none"> -Flop shots -Bump and run -Trick curve shots -Trouble shots 	<ul style="list-style-type: none"> -Tests to gauge RES knowledge (mastering) -Watch safety videos -Stump the Pro -Safety Update 	<ul style="list-style-type: none"> -Individual stroke play -Alternate shot -4 ball teams -Speed golf -3 club challenge -Ryder Cup challenge matches
Rainy Day Options	Rainy Day Options	Rainy Day Options	Rainy Day Options	
<ul style="list-style-type: none"> -Create weekly nutritional plan to use during tournament play 	<ul style="list-style-type: none"> -Ping pong -Golf video games 	<ul style="list-style-type: none"> -Assessing video lesson -Mental Coach 	<ul style="list-style-type: none"> -Sportsmanship, etiquette, rules and safety videos and stories 	

(The following is suggested as a hand-out to parents of juniors participating in the PGA Sports Academy)

Parents' Resource

A parent or relative who introduces golf to a child can look forward to a lifelong bond and friendship. This bond will help create a common activity and ultimately develop long-term golfers and a higher retention of the parent or relative that started the process. A junior golfer who falls in love with golf will keep their parents interested in the game. PGA Professionals should note the evolving roles of parents as their juniors mature physically and mentally.

Player Level—Introducing golf to your child

At this level of emotional maturity, children like to discover things by themselves. It is good to tell them that you will help them only when they ask for your help. This will challenge them but at the same time it will give them a chance to seek your advice when they have had a chance to think things through. This process will also ensure that your child's cognitive abilities will be enhanced and will lead to future neural pathway expansion. You will enjoy the experience more when your advice is sought after. When your advice is asked for by your child, you will know that the timing for your help is appreciated.

Making golf a fun experience by:

- Sharing the experience through putting (the Goal is the Hole!);
- Including him/her in on interactive putting games as noted earlier in the manual;
- Draw and create your own golf hole;
- Reading them children's golf stories ;
- Watching golf on television and explaining the game to them;
- Sharing Golf with your child or younger brother or sister will lead them to getting "Addicted to Golf;"
- Creating a mindset that sets a foundation for learning the skills of golf and ultimately becoming a long-term golfer.

Sport Level--Supporter and playing partner

As children mature into adolescence, they become more socially interactive with other junior golfers helps expand their investment in golf. Give positive support when they share their accomplishments; they will feed off of your interest and it will motivate them to share future experiences with you. Ask them to join you when you practice. Invite your young golfer to watch tour or college events so that they may also have an insight into the next levels and excitement that exists in high level golf.

As junior golfers mature physically and mentally, how they learn and perceive ideas also changes. They are more invested in the game and their mindset and outlook changes. After a poor shot, you may not receive an invitation to lend advice. That is because they are not ready to receive advice yet. When they ask you for advice, you will know that the time is right. You can also quantify the value of the advice because it is being sought after.

Champion Level

When your child first starts to compete they will need your understanding and support to help them understand the expectations and pressures that they will be experiencing. Downplaying the scoring results and reaffirming the playing experience will help your youngster understand golf is a great game. Parents can focus their child's attention on the friends they made at the event, the enjoyable aspects of the golf course and being outside in nature, what they learned from watching other players, and what did they learn about themselves in a competitive environment.

Support your sons and daughters with all the resources you can—from custom clubs to lessons from PGA Professionals. Play golf with them when you can. Even if your child plays better than you, they will always be able to learn something from you. Make time to hear their golf stories at the dinner table or during free time.

Tracking your game

It is vital that your junior golfer is at all times aware of the strengths and weaknesses of their game. Your child should keep track of their practices and statistics when playing a round of golf—either a competitive event or casual round. Understanding these statistics and behaviors will help them structure their practice in the most efficient way. Following are some examples of each:

Practice

Time spent on each part of the game (putting, chipping, bunker, irons and woods);
Scores in golf skills challenges;
Mental state during practice;
Drills completed.

Playing

Conditions of play (tournament, casual);
Greens in regulation;
Fairways hit;
Putts per hole;
Up and downs;
If a fairway or green was missed, describe (left, right, short or long);
Swing thoughts

Journal Logging

Have your child keep a golf journal. The journal will allow them to have a safe place to keep their practice and play thoughts and experiences. The journal will help your child's PGA Professional determine what your child needs to practice to grow their game. The following are some examples of what could be in a golf journal:

- Golf scores;
- Practice session reviews;
- Emotions on and off the course;
- Swing thoughts;

- Fitness and nutrition (hydration, exercise and food intake).

College Preparation

Playing golf in college is a great way to go to school and to continue being active. For junior golfers without the ability or desire to land a spot on a college team, the college years provide a transition from junior golf to a lifetime of club golf and amateur competitive golf.

Playing Collegiate Golf

If your child is serious about playing collegiate golf, educate them on the demands of a collegiate student-athlete. They must be fully aware and ready to accept what they might experience in college. The following tips will help you prepare your junior:

- Have your child play in as many competitive events as possible. Travel to state and national tournaments to get them out of their comfort zone and playing in different conditions.
- Create a resume of all playing and academic accomplishments. College coaches like to see that you can succeed on and off the golf course.
- Utilize social media to your advantage. Most collegiate teams have social media accounts and websites. Browsing the sites will give you and your child an idea of the atmosphere in that program.
- Know and understand the NCAA rules. There are important dates with collegiate recruiting, which can help or hurt your child's ability to get recruited.
- Reach out to past and present collegiate players and coaches. They will be able to give you and your child a more personal helping hand in the recruiting process.
- Have your child start a fitness routine. In college, they will have to balance fitness, golf and school work.

Other Golf Options

Golf is a game of a lifetime. There are many opportunities to enjoy golf while in college. Students can play casually with their friends or even in competitive tournaments on the side. They can even have a career in golf by attending a PGA Golf Management University or studying as an apprentice on their own. To find out more about these programs, please visit PGAJobFinder.com

Helpful Links

www.juniorlinks.com
www.nationaljuniorgolfscoreboard.com
www.future-links.org
www.positivecoach.org
www.thefirsttee.org
www.uskidsgolf.com/
www.snaggolf.com/
www.golfchamp.com
www.linxtracker.com
www.USkidsgolf.com
www.NCAA.org

