HOW TO USE THIS DOCUMENT

This is a guide where you can find a variety of drills/exercises that you can use to help develop or refine a skill for you and your customers. This is by no means complete, it is a 'living' document, which will have additions, or modifications, as we continue to discover the scope of performance of our equipment.

Each drill is noted to address Balance (B), Rotary Control Movements (R), Edge Control Movements(E), Pressure Managing Movements(PC) and/or Diagonal/Directional Movements(DM),which encompass the 5 fundamentals of Skiing. Control the relationship of the Center of Mass (COM) to the base of support to direct the pressure along the length of the ski>>Stance/Balance. Control the pressure from ski to ski and direct the pressure toward the outside ski>>>pressure managing movements. Control the edge angles through a combination of inclination and angulation>>>edge control movements. Control the skis rotation (turning, pivoting, steering) with leg rotation, separate from the upper body>>rotary movements. Regulate the magnitude of pressure created through ski/snow contact>>>pressure managing movements

Many of the drills address more than one of these skills because in reality it is very difficult to separate and just work on a single specific skill.

Each set of drills is also divided into levels, Level 1-3, Level 4-6, and Level 7-9, which are representative of the Novice Zone Skiing, the Intermediate Zone Skiing and the Advanced Zone of Skiing. Each drill has been selected, anticipating that a customer, or self should be able to achieve the drill at that level. Because snow conditions are always changing, no turn is ever exactly the same as the next, energy levels and conditioning levels of customers and self may vary, the level of success may also vary. Remember that this is a guide, if at first you don't succeed, but you thought you should, ***modify the task or modify the terrain***.

You will also find in this guide, that some drills are repeated for each of the three zone of skiing, but the intensity may be changed, or slight modifications may be made for a specific level. Please be mindful of the athleticism of your customer and self, do not choose a drill that is above their skill building level and development. You can always choose a lesser drill for an upper level, but do not choose and upper level drill for a lower level, this will only add to frustration from inefficiency or failure at achieving the drill. If you do choose a drill that you think you or your customer should be successful at, but are not, consider adding it to a future list of goals, or even a Season long accomplishment.

Most of the drills in this document can be modified and utilized with younger children. Remember when teaching kids, that you demonstrate and teach proper movements even though you are aware, and understand, that due to the physical development of the child, what they perform may not look the same as the Ideal that you demonstrate! However, the goal is to plant the seed for correct and efficient movements, so when they become physically capable, they already have a strong foundation.

If when reading this document, you do not fully understand how OR why a drill is used, please ask, before using that drill. **If you cannot efficiently and correctly demonstrate a drill, do not use the drill**.

Lastly, in selections of drills, please remember to ask yourself, WHO your customer is, WHAT are you trying to achieve through your selection, WHY are you utilizing a specific drill, will it enhance skill development, WHERE is the best terrain to achieve success performing the drill, terrain selection and conditions play a part in success, WHEN will you use the drill in the progression of the lesson or skill development, and HOW will you present the drill for maximum success.

Balancing Movements (B)

Skiing requires dynamic balance, movement with control. A balanced stance is necessary for dynamic balance. Feet should be hip distance apart, ankles flexing, knees lined up over forefoot, hips over midfoot, lower back slightly rounded, and nose over toes. Hands should remain within your peripheral vision. (Compare a skier's stance, to a ready position in other sports. If you are not in balance, rotary, edging and pressure control movements will be over utilized. Dynamic balance allows a skier to utilize any skill to affect a change, with either leg at any time in a turn. **GOAL: is to Control the relationship of the COM to the base of support, and direct the pressure along the length of the skis.**

Rotary Control Movements (R)

Rotary movements originate from the feet and legs, both legs and skis turn at the same time, the upper body remains quiet, you ski into and out of 'counter'. The core supplies the strength and functional tension to the inside half of the body to facilitate the steering action of the legs. Turn shape should resemble 'C' or 'S' shapes and not 'Z '. Speed control is achieved through turn shape**. GOAL: control the skis rotation (turning, pivoting, steering) with leg rotation separate from the upper body.**

Edge Control Movements (E)

Skis are tipped at the same time and should create equal edge angles in the snow. Edges should be released and re-engaged with one smooth movement. Use the design of the ski effectively**. GOAL: Control the edge angles through a combination of inclination and angulation**

Pressure Managing Movements (PM)

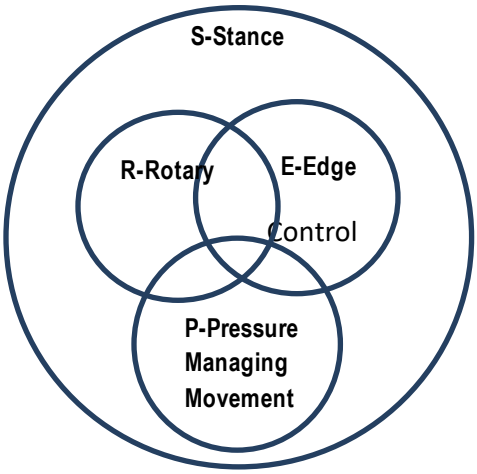
Skis should move smoothly over changes in the terrain, this is achieved through leg flexion and extension. Flexing should originate in the ankles, complemented by the knees, hips and lower back. The skis bend progressively throughout the turn. Maintain 'strength in length' of the outside leg. Pressure control movements can also occur from foot to foot. Flexing movements allow us to manage the pressure that builds through the arc of a turn. Extension movements directionally allow us to flatten the ski so it can be steered or tipped in another direction. **GOAL: Control pressure from ski to ski, direct pressure to outside ski, and Regulate the magnitude of pressure created through ski/snow contact, : Control the relationship of the COM to the base of support, and direct the pressure along the length of the skis.**

Diagonal/Directional Movements (DM)

Is the body keeping up with the skis? Does the inside half lead the outside half through the turn. Focus is to keep the inside half of the body raised and ahead of the outside half. Do the ankle, knees and hips move forward and laterally in the direction of the new turn. The relationship of the upper and lower body is key in creating a 'stacked' alignment that allows maximum strength of the outside leg. Are movements complimented by the pole swing. **Diagonal/Directional movements facilitate edge release and turn transition**. The COM moves in the direction of the new turn. If directional movement is lacking, turn initiation is difficult and inefficient compensatory movements occur. Diagonal directional Movements are imperative for Dynamic Balance.

Fundamental Movements of Skiing

- Control the relationship of the Center of Mass (COM) to the base of support to direct the pressure along the length of the ski…Stance/Balance
- Control the pressure from ski to ski and direct the pressure toward the outside ski…pressure control movements
- Control the edge angles through a combination of inclination and angulation…edge control movements
- Control the skis rotation (turning, pivoting, steering) with leg rotation, separate from the upper body…rotary control movements
- Regulate the magnitude of pressure created through ski/snow contact…pressure control movements



If at First You don't Succeed…

Remember if your guest is not successful in what you thought they could do reduce the task or reduce the terrain!!

Variables that affect performances

Enclosed is a detailed list of drills, the skills they address, and explanation of the execution where needed. These drills are listed with highlights of particular skills, but remember all of the skills are interrelated so the focus on one drill can be used to develop and solidify other skills and movements. **Equally important is our utilization of variables in terrain, changes in turn shape, speed, intensity, and the everchanging snow surface. Mileage with 'gentle' coaching reinforces movement patterns and improves skill development.**

Terrain

Using a variety of terrain and the same drill can change the task for your guests and can possibly enhance their learning experience, but, it may also be a detriment. If you do not see the changes in their skills that you expect, make changes to the terrain. ***Terrain*** changes can include a change in the snow surface, in the pitch of the hill, in lighting, and in the amount of traffic. All of these variables can affect the successes of your guest. Before you change the task, change the terrain.

Turn Shape

Use variations in turn shape and size to reinforce the development of skills. Ski Z's, C's, and S's or make "box turns" to explore the different blending of skills required. Explore different turn radii to see how it affects skill blend (or more accurately how skill blend effects turn radius). Ski on the diagonal of the hill, explore skill blend on the uphill turn and the downhill turn. All build versatility and skills.

Intensity

Changing the intensity can add to the learning experience. Ski light or heavy, edge hard versus edge softly, turn quickly versus turn slowly. Experiment with what type of turns you make if you push your skis to make a turn versus, steering of the skis to make a turn.

Speed

Varying speeds while skiing contribute to the learning experience. Ski fast, what changes need to be made in the blending of skills. Ski the group S-L-O-W and see how precise the movements have to be for the skier to continue to flow from turn to turn.

Snow Surface

The snow surface constantly changes, from day to day and from run to run. New snowfall, melting and refreezing, sun and shade can all affect the snow surface. Use these variations to enhance your mountain experience. Take your guest on a tour of snow surfaces, explore how using different snow conditions add to the learning experience. Read your tracks in the snow, to get your own feedback!

Boot Drills

Purpose: Boot Drills allow the individual to become accustomed to the 'cast like' feel of a ski boot to understand since there is limited ankle movement, that the entire leg is involved when doing boot drills.

The COM, remains over the base of support as you walk through the drills. These simple drills allow you to develop movements used in skiing.

Walk in a Figure of Eight: This addresses the use of both inside and outside foot steering. As you move toward the right in a figure of eight the right foot will enter into the turn first. As you are moving to the left in your figure of eight, your left foot will enter into the movement or turn first!

STOMP! As you are walking on the flats, in a figure of eight, do not step heel to toe, but STOMP into a flat foot. Make sure Center of Mass is moving with foot movements. Think of keeping you jacket zipper over your stepping foot.

Make snow Angels: In boots make boot prints by pivoting boots in the snow.

- Look at the patterns, you do not want to see windshield wipers or fans, but want bow ties. Windshield wipers mean you are pivoting off the toes; fans mean you are pivoting from the heels; bow ties mean you are pivoting from mid foot which is what we want to see.
  Entire leg rotates in the ball and socket joint of the hip, with the pivot point midfoot.

Walk like a Duck: Heels together, toes facing out. Reinforces herring bone position

- Tip the legs inward enough to engage the big toe side edges of the skis and prevent a backward movement down the hill.
- Knees do not touch each other, legs are tipped just enough to create an edge angle so slipping backward does not occur

Walk like a Pigeon: Toes together, heels facing out. Reinforces wedge position, and Bull fighters stance.

Walk One Duck Foot, One Pigeon Toe: Reinforces movements necessary for side stepping, and for the 'big toe', 'little toe' position in parallel skiing.

Walk Like a Crab: A crab moves sideways along a path. Move your feet stepping sideways like a crab Would do not cross your feet, step them side by side.

- Take small steps, 6-8 inches apart, this allows you to tip the uphill ski to the little toe side and the downhill ski to the big toe side so that you do not slide sideways down the hill.

Big Toe Little Toe: On the flats, tip both feet simultaneously. One tips to the big toe side, one to the little toes side. Remember to tip back and forth in both directions. When you tip, the center of mass, moves slightly in the direction you tip your feet, to keep the COM centered over the feet.

- This movement is used in climbing, side stepping up the hill, small steps allow for edge engagement and no slippage sideways down the hill.
- Tip the knees slightly up hill to aid the edge engagement
- As the legs move in the hip socket, the lower leg should be in contact with the boot cuff at the 2 and 10 o'clock positions. (Think that shin against the front of the boot is 12, pure lateral tipping places you at 3 and 9.)

Open the Clam, close the Clam: Great image for the youngsters. Visualize that the arch of the foot is a Clam shell. When you are on the big toe side of the foot the clam shell is closed, tip your foot to The little toe side to open the clam shell. This begins to develop tipping movements of the legs

- Remember to demonstrate correct movements although the Real and Ideal for children may show a different picture.
- Directionality may not appear until the age of 7, so you need to stand facing the same direction as the child.
- Movements are learned! Each child must go through all stages of development, but they may do so at differing rates depending on activities involved in.

Choosing Sides: Remember always what is done to one side is repeated to the other side. If one side is obviously stronger, the first and the last turn made should be toward the weaker side.

Boot Slalom: Set up a slalom course with poles, balls, cones, and walk through them alternating one to the right and then to the left. Repeat the drill by running through them. Make sure that when moving to the right, the right foot moves directionally first, when moving to the left, the left foot moves first. No foot/leg crossover!
Variations: Use colored objects, turn right at red, left at yellow. Hop at each object as you turn.

- These drills reinforce movements needed to turn when on skis.

March and Shuffle: March in a figure of eight, shuffle in a figure of eight. Focus on right foot moving first when going right, and left foot moving first when going left.

Toe Piece Pivot: Stand on the toe pieces of your bindings on the middle of your foot. Support yourself with your poles, now pivot your feet, moving your leg in your hip socket to simulate the same pivoting movements used in skiing

- Stand in a wedge position on your toe pieces, balancing yourself with your poles. Realize you must move inside foot toward the little toe side to simulate the turning movements when on skis
- "Inside" foot, is the right foot when turning right, the left foot when turning left
- Upper body remains stable and quiet. Upper body begins at the pelvis and moves up, lower body consists of the legs down to the feet. Rotational movements are from the femur rotating in the hip socket.

Scribe a "C" with the little toe

Open the pickle jar: With your feet

Ski pole game: Everyone removes their skis and drops a single pole. Form a circle, each participant holding the single pole in their right hand. Place the pole in the snow, but keep your hand on the grip. The leader will call out 2 numbers. When '1' is stated, everyone steps to the right, when you do so, release the pole you are holding and grab the next one to the right in the circle. If '2' is called out, everyone steps to the left. Numbers are called out rapidly as soon as everyone moves is the designated direction. This drill gets everyone moving, sensing how they have to move their COM to stay over their feet.

- **Play the Hockey Pokey:** Turn your Big Toe in, turn your big toe out, turn your big toe in and twist it all about, you do the hockey pokey and you turn yourself around and that 's how we ski about! Repeat both sides.

Single Ski Drills

For Children, OR if needed with Adults

Single Ski Drills: These are drills where you only use a single ski in order to reinforce a skill that may be lacking. These drills are used many times for very young children who need get used to the feel of very heavy and long feet. Boot drills, followed by the same drills with a single ski help reinforce proper movements when on 2 skis. When using single ski drills for children remember to repeat the drill with both the right and the left skis. When demonstrating, remove the same ski that the group is removing. Make note of the rental ski number, so the group will return to the proper ski after the drill is completed.

Single Ski Drills for adults should be used ONLY when needed to develop or refine a movement that is absent when introduced on 2 skis.

Scooter: On the flats, with one ski off, push off with your boot and glide and balance on the single flat ski, just like riding a skate board or a scooter. Push off the booted foot, move the COM forward, so it is over the middle of the ski, and the lower leg remains in contact with the front of the boot.

- Do not allow the ski to be pushed ahead of the COM, make corrections immediately and repeat corrected scooter moves.
- Variation: Use props. On a slight slope, push off down the hill with the booted foot, steer the ski using your big toe to direct where the ski moves. This allow for a slight edging of the ski and aids in turning through an arc.
- Make it a bit more challenging. Repeat the drill as above, but now steer the ski so the little toe enters the turn first.
- Both of these drills simulate the movements of both skis when turns right and left.

Walk in a Figure of Eight: This addresses the use of both inside and outside foot/ski steering, remember what is done to one side has to be done to the other.

Walk through cones: using a single ski, walk through a course you have set up using cones. This develops The movements you will need when you have both skis on. Remember that the right foot and leg move first when going to the right, the left foot and leg move first when going to the left.

Balancing Movements
Control the relationship of the Center of Mass (COM) to the base of support to direct the pressure along the length of the ski

Level 1-3

(B, PM) Snow Shuffle: Shuffle feet back and forth under your hips in a right, left, right, left fashion

- This is closing and opening the ankle joint needed for fore aft balancing & pressure control movements
- Make sure during this drill that your shin remains in contact with the front of the boot
- Shuffling movement is very slight, only 1-2 inches, which still allows shin to boot tongue contact
- Keep Shuffling movements slow so that the movement of the legs does not impact the position and movement of the upper body. Shuffling should be no faster than a second for 2 shuffles. A 1-1000, 2-1000 count will allow for 2 forward shuffles with each foot.

(B, PM) Walk the Line: Step over a drawn line in the snow while gliding down a gentle slope

- Develops balance fore, aft and lateral.
- Repeat stepping to the right and back to the left
- Requires the Center of Mass(COM), to move over the stepped foot

(B,PM) Bunny Hops Or Kangaroo Hops: Standing still, gliding down the hill or during your turns, place a hop in the middle of your glide

- Regain balance of the COM over the base of support
- Develops flexion and extension, opening and closing of the ankle joint
- All joints flex evenly and extend evenly
- If gliding downhill, movements are in the direction of travel, not straight up
- **NOTE:** Make sure joints are all flexing and involved in the hopping, not just the arms, and not just through retraction of the legs

(B,PM): Trampoline Jumps: Picture bouncing on a trampoline, joints are always opening and closing, flexing and extending to make sure you do not get launched off the trampoline. Same movements in skiing, joints are supple and flexible to manage changes in terrain and pressures that are developed throughout the course of a turn.

(B,E): Rock 'n Roll: Rock forward onto toes, back to heels, rock back to centered position just aft of the ball of the foot and arch of foot. 'Roll' (tip) skis while standing still, to big toe and little toe sides.

- Addresses fore/aft and lateral balance. Remember that when you tip to the edge, the Center of Mass (COM) moves slightly to line up over ski that is tipped to big toe side.
- Make sure with the lateral tipping, you keep your shins in contact with the boot cuff
- Tipping is to 2 and 10, not 3 and 9. Tongue of boot is at 12.

(B)Ski Tip glide: Lift the tail of one ski off the snow as you glide down a slight slope. Repeat both directions

- Develops fore aft and lateral balance. Maintains stack posture over the ski while gliding
- Keeping the tip in the snow allows you to maintain a balance position over the length of the ski
- Both legs must maintain shin to boot tongue contact to utilize entire length of the ski and to keep the tip in the snow

(B)Shin tongue: Flex ankles so that both shins remain in contact with the tongue of the boot.

- Focus on flexing the ankles, not knees. Raise your toes only, to the top of the boot. Muscle on the outside of the shin contracts. This closes the ankle and creates a stacked position, the COM remains over the base of support
- If you feel you are being pushed back on your heels, you may be trying to lift entire foot which forces COM aft. Repeat the drill lifting just the toes, again allowing the ankle to flex
- Attempt to lift your heel off the bottom of your boot. This movement moves the body forward to line up over mid foot and keeps you in a stacked position. Your heel SHOULD NOT LIFT OFF THE BOTTOM OF THE BOOT, or your boots need to be tightened, boots are too large, or there are alignment issues.
- Think of the tongue of the boot being at 12 o'clock on the face of a clock. Keep in contact with high noon when standing or walking, 2 and 10 when turning!

(B) Nose Over Toes: Balanced stance in a static position is an important starting point for dynamic balance. Feet hip distance apart, ankles flexing, knees lined up with forefoot, hips over mid foot, lower back slightly rounded and nose over toes, arms relaxed, elbows ahead of the rib cage and belly button, hands in peripheral vision. COM remains over base of support (BOS)

(B): The Balance Triangle: Think of your nose as the top or tip of a triangle, your hands that are ahead of you and in your peripheral vision, are the base of the triangle. You never want to lose this orientation of the triangle.

(B) Marshmallow Tacks: Picture marshmallows between the tongue of your boots and shins, tacks on your calves, never touch tacks, always touch marshmallows.
- This maintains shin tongue contact and maintains a stacked balanced position.
- This is a good visual for children

(B/PM/DM): Flex and Stretch: Exaggerate the flexing(closing) and extending(opening) of the joints from ankles to spine. Remember that most people do not show much flexion or extension even when your demo exaggerates it, have gust exaggerate so they can better feel the desired movements.
- Focus on ankle flexing, correct bending at the waist, or knees, as it will force you aft.
- Stretch arms above head, then flex joints evenly so that you can touch your hands to the outside of boot cuffs
- Repeat the above in a straight run, then in long radius turns
- Extend/open your joints to enter turn and release edges so the skis can be guided, Flex/close joints to finish. Standing COM over BOS also allows for greater creation of angles through the tipping of the legs
- Play 'Heads, shoulders, knees and toes' with the children, this is a fun way to develop flexing and extending movements
- Add a small hop off the snow as the kids go from toes to head with extension movements. Remember to try to have all joints flexing evenly. Remember Real vs Ideal for the younger folks

(B): Tip to Tail Lift: While gliding down a slight slope lift the ski off the snow, both tip and tail are off the snow and remain parallel to the pitch of the hill. Be mindful of how this is achieved. You must have ankle flexion and lower leg must remain in contact with the front of the boot cuff.
- If **the** tip is higher, adjust COM forward, this also changes the ankle flex slightly

(B,R,E,PM): 100, 1000 Steps: Make small steps while gliding in a straight run, and to introduce direction

change. Repeat making small steps throughout your turns

- Focus on balanced stance while gliding, and stepping out of the 'fall line' using small directional steps, inside foot steps first, in the new direction, right to move right, left to move left out of the fall line
- Steps should be small enough to always maintain the shin to tongue contact, and allow your COM to remain over your BOS
- Discover how small the steps need to be first in the static position then in the turns. It is only about a half of a toe piece
- Small, slow steps should not engage movements of the upper body

(B): Better to See you With…Use your Three Eyes (Show Me Your Belt Buckle): Think of your navel as a third eye which has to be open to be able to see, and more importantly directs you where you want to go. This drill focuses on standing tall while gliding, not bending or hinging at the waist

- Hinging at the waist limits range of motion in the legs, and will force out of balance by changing where our COM is in relation to BOS (Base of Support)

(B/DM): Dive Bombers or Airplane Turns: Arms are extended out at your side resembling airplane wings. Your arms are tipped during your turns so that they remain parallel with the pitch of the hill.

- This creates angles with the lower body, maintaining balance. Your uphill hand is higher than your downhill hand. Your torso on the uphill side is elongated, on the downhill side, is shortened, pinched, at the waist.
- Your inside leg will remain shorter than your outside leg
- Outside leg is longest in the fall line

(B,PM,DM) : Hop Down the Fall Line/ Jack Rabbit Jumps: On a green trail, hop down the fall line. Watch that both skis are hopped off the snow at the same time. The ankles, knees, hips and spine, flex and extend equally. At extension the skis are lifted off the snow and land where the tips once were!

- This is not a retraction movement where the tails are lifted only, the entire length of both skis are lifted due to an explosive extension movement off the snow and in the direction of travel.
- Arms and shoulders are not engaged in the extension movement, they remain quiet as the legs extend and flex
- Landing is quiet reflecting a flexing movement upon contact with the snow surface.
- When you hop, Land where your tips were when you hopped from the snow! This requires an active forward movement along the ski!
- Helps in turn initiation, hop to start the turn
- Aides in re-centering at turn completion and to prevent a stalling or flat spot in your turn, hop as you exit the fall line!
- Hopping is a great drill for children to flex and extend and well as to develop balance, but remember, it is a tiring activity!

(B/PM/DM): Gorillas & Giraffes: Stand and stretch as tall as you can, then flex your joints to be as short as you can.

- Make yourself tall at turn initiation. This extension is not vertical, but in the direction of your new turn (diagonally and down the hill, in the direction of the apex of the upcoming turn) allows for the flattening of the skis, edge change and a directional movement of the COM toward the new turn.
- Flexion of the joints starts from the ankle. At turn completion start flexing all joints to become small as a gorilla. Eventually with increased speed, and completion of your turns across the fall line, the joints flex naturally to maintain dynamic balance

- To maintain dynamic balance, outside leg lengthens at turn initiation and the inside leg shortens.
- Flexion/extension movements are very slight at the wedge turn level, but they do still occur and must in order to flatten the new inside ski so that it can be steered into the new turn

(B): Herringbone Balance Drill: On a slight incline get into a herringbone position facing up hill.
- Look where your COM is located in relation to your feet, line your ski pole up with the middle of your hip, it should drop to mid foot
- Weight is felt along the entire big toe side of the feet
- Shins remain in contact with the boot cuff, at the 10 and 2 o'clock position

(B/PM) Take a Step: Skiing medium to long radius turns, as you are finishing your turns, take a couple of steps up the hill. The entire ski should be lifted off the snow.
- Allows for rebalancing
- Allows for speed control through turn shaping
- Allow will begin to realign the skis for a wedge Christie

(B): Show me your Belt Buckle! Standing relatively tall as you glide down the hill, allowing those below to see your belt buckle, this cannot be done if you are bending or hinging at the waist.
- This helps with standing balanced in the middle of our skis

(B/PM): Christmas Tree Drill. On a slight roll on Ollies stand in the wedge heading down the fall line. Now start to hop up the hill. If both your ski tracks to do meet an imaginary tree trunk in the center of your skis, you are not forward enough to engage the tips!

(B,R,E,PM): Skiing backwards…on a very flat surface. Ski backwards in a wedge on very flat terrain, focus on where you are standing on your foot, where you lower leg touches the boot duff, now turn forward and ski using that same foot and lower leg focus. Watch for traffic

Balancing Movements
Control the relationship of the Center of Mass (COM) to the base of support to direct the pressure along the length of the ski
Level 4-6

(B,E) : Pole Pull: Pick a partner and stand on the side of a pitch. The upper person stands in a balanced position across the fall line, the lower person takes hold of the upper person's ski poles by the baskets. The lower person tries to pull the upper person down the hill, the upper person resists by creating a higher edge angle in the snow and creating angles with their body to remain in balance.
- Repeat the drill, by having the upper person drop their butt behind their feet. You will find the person is easily pulled off balance and down the hill
- Repeat the drill again by having the upper person push their uphill ski 6 or 8 inches ahead of the downhill ski. You will again find the person is easily pulled down the hill and loses balance.

(B, PM): Bunny Hop: In moving from wedge turn to wedge Christie phase, hop skis off the snow sometime after the fall line or at the end of your turn, this re-centers balance, reduces the chance of bracing against the outside ski, and allows for easier re-alignment of the inside ski
- Hopping is a great drill for children to flex and extend, to develop balance, and realign the skis, but remember, it is a tiring activity!

- Hop a couple turns, then pretend to hop but don't allow the skis to come off the snow! Slow the hopping activity, so it is not an abrupt initiation, but a smooth, controlled turn entry. You mimic flexion, extension, flattening and lightening of the skis for initiation of your turns
- Hop in the direction of the new turn, keeping COM over BOS

(B,DM) Snow Shuffle: Shuffle feet back and forth under your hips in a right, left, right, left fashion

- This is closing and opening the ankle joint needed for fore aft balancing & pressure control movements
- Shin remains in contact with the tongue of the boot, COM remains over BOS
- Shuffling movement is very slight, only 1-2 inches, which still allows shin to boot tongue contact
- As you shuffle through your turns, make sure that your new inside ski shuffles forward at turn initiation, which begins your directional movement and weight transfer.
- Shuffling movements should be slow and rhythmic, so that the movements do not generate activity in the upper body or pelvis
- When using shuffles for turn initiation, make sure when the inside foot shuffles forward, the tip of the ski does not pass beyond the new outside ski tip, tips should almost line up, or inside slightly behind outside, so your hips remain open to the new turn.

(B,PM): Single Ski shuffle/On the Right Foot Drill: Start shuffling only one leg back and forth at a time

- This drill is good for understanding which side of the body you may be stronger, or weaker on
- How do turns differ when shuffling with right leg only, or with left leg only
- Get feedback also from each skier, which they perceive is the stronger side. Develop equal sidedness by continuing to shuffle using the stronger side leg

(B): No Tails: Ski as if there were no tails to your skis

- With no tails to the skis, you must maintain shin to tongue contact
- Tips of the skis will be drawn into the turn above the fall line

(B,R): Shrink it/Ski with the smallest wedge possible!: Make your wedge as small as possible while staying on opposing Edges

- Feet are lined up under the hips, not outside the hips
- Small wedge allows for early realigning of the skis when moving into a wedge Christie
  - Many children still have the image of making a piece of pizza for the wedge, give them a visual of eating their pizza. Make the wedge as small as possible to develop a more parallel orientation of the skis
  - Move them to terrain appropriate to utilize terrain changes, rolls, whale mounds to develop the Wedge Christie

(B,E) **Long leg, short leg (Riding a Bicycle**): By virtue of standing on the side of a slope, no matter how steep, one leg is always shorter (flexing) than the other to maintain a balanced stance and position

- This orientation changes from turn to turn. Both legs are shortest and flexed at turn transition as the body crosses over the skis
- Your 'long' outside leg will still have flexed joints, but remain longer than the inside leg
- A bracing and full extension of the long outside leg will force your COM aft and potentially lose edge purchase on the snow, causing greater skidding than anticipated.
- Lower legs should remain in contact with the boot cuffs at the 2 and 10 o'clock positions
- Picture your outside knee lining up over the cuff of the inside boot!

(B,E,PM) Riding a Bicycle:

- There are no quick jerky movements, as one leg shortens and pulls to the top of the pedal revolution, the other leg is lengthening toward the bottom of the revolution.
- At turn initiation, as the leg shortens, move your COM in the direction of the upcoming turn, do not allow the ski to come off the snow. Demo this statically first, then put it into your turns. To aid this sensation and movement, think about tipping the new inside foot toward the little toe side, this draws the Com into the turn, and allows for flexing of the ankle and shortening of the leg, while simultaneously, the new outside leg is becoming longer, and a subtle but accurate weight transfer to the outside ski is achieved above the fall line
- Once you have achieved the desired short leg, long leg orientation and you have steered your turn to completion (legs can no longer turn in that direction in your hip socket), then reverse, and begin to start to shorten your long leg, and lengthen your short leg.
- Remember that when you are riding a bike and moving around a corner, the inside leg is the short leg, the outside the long, same with skiing, short leg is the inside leg, long leg is the outside leg.
- Children understand bike riding, this helps develop flexion and extension, this also is a great drill to develop skidding at turn completion for a wedge Christie.

(B) Tail Tap/Thumper Turns: At turn completion, tap the tail of the uphill ski on the snow.

- Tapping aids balanced stance, allows for realignment of the uphill ski with the downhill ski at turn completion
- Cannot easily keep the inside ski on opposing edges when taping the tail, helps to move to corresponding edges.
- Maintain shin to boot tongue contact, so tip remains in the snow and the tail of the ski can be stomped
- Great visual for younger customers. Weave a tale, go on an adventure, go on an animal hunt!

(B) The hands have it: Drop your ski poles, ski with your hands out in front of you as if you were carrying your poles. Ski open parallel turns balanced. Now cross your hands on your chest, what adjustments do you have to make to remain in balance? Now place your hands at your waist on your hips, repeat and see what movement you have to make. Now repeat again, this time with hands behind your back. Last, hold hands up over your head as high and as straight as you can make them. What adjustments now?

- Great guided discovery drill for upper levels. How do you need to adjust the flexing of joints so that COM remains move BOS

(B,PM,DM) : Hop Down the Fall Line: On a green trail, hop down the fall line. Watch that both skis are hopped off the snow at the same time. The ankles, knees, hips and spine, flex and extend equally. At extension the skis are lifted off the snow and land where the tips once were!

- This is not a retraction movement where the tails are lifted only, the entire length of both skis are lifted due to an explosive extension movement off the snow and in the direction of travel.
- Arms and shoulders are not engaged in the extension movement, they remain quiet as the legs extend and flex
- Landing is quiet reflecting a flexing movement upon contact with the snow surface.
- Hop and land where your tips were when you hopped from the snow! This requires an active forward movement along the ski!
- Now take the hop into a long radius turn. **Leapers**: Start down the hill, leap off the snow using a diagonal movement, landing on new edges, feet are twisted in the air to mirror the arc of the turn!
- Repeat in both directions

(B) Single Ski Glide: On a slight slope start sliding down hill on both skis, continue down the hill, lifting

one ski off the snow

- Hint, if there is a balance issue, keep the tip of the lifted ski on the snow, this allows for a more centered stance. Make corrections if you see any upper body tipping or leaning in an attempt to maintain balance while gliding. Tighten abdominal muscles while gliding, this helps in relaxing the ankles for better control of balance. Again have them keep the tip in the snow if you see any sign of being out of balance. Repeat the drill on both sides.
- Double ski pole drag. If you find you are out of balance performing this drill, actively drag your poles just outside your toe pieces and keep them in the snow while skiing down the hill and repeat the drill. This 'planted' position allows for stabilization of the upper body and a proper 'stacked' position over your skis. COM over BOS

(B) Advanced Challenge Single Ski Glide: While gliding on a single ski, hop off the snow and land on the same ski

- If there is a balance issue, keep the tip of the lifted ski on the snow, this allows for a more centered stance. Make corrections if you see any tipping or leaning in an attempt to maintain balance while gliding. Tighten abdominal muscles while gliding, this helps to relax the ankles for better control of balance. Repeat the drill again keeping the tip off the snow again watching for signs of imbalances. Repeat the drill on both sides.
- Double ski pole drag. If you find you are out of balance performing this drill, plant your poles just outside your toe pieces and keep them in the snow while skiing down the hill and repeat the drill. This 'planted' position allows for stabilization of the upper body and a proper 'stacked' position over your skis.
- If your customer is really good, when they hop off the snow, change legs and land in the same track with the opposite ski!

(B) Ramp it up Single Ski Glide: Gliding on a single ski, hop off the snow and switch feet as you land, in the same track. As you look at your track in the snow, there should be a single smooth track

- Watch for hands and arms to remain in a balanced stance position, shoulders do not tip, but remain parallel to the hill. Repeat with both skis
- Hopping occurs using the ankles and legs, not the arms to extend off the snow, nor do the legs retract off the snow

(B,E,PM) Sequential Hop turn Drill: On a whale mound, or terrain roll, facing down the hill in a wedge. Start by stepping left foot from wedge to parallel, immediately step, the left leg back to wedge, followed by the right leg stepping to parallel, immediately followed by stepping the right back to a wedge. Continue in a rhythmical hopping pattern. **Do not move down the slope more than a single ski width**. Poles are lightly in the snow, but are not used to keep you from advancing down the slope

- Lower your COM during this drill allowing for greater movement of the legs and skis away from the body thus creating a stronger edge angle, and limited movement down the hill.
- Lower leg must remain in contact with the front of the boot to remain centered and balanced.
- Upper lower body separation occurs at the hip socket, zipper remains facing down the hill. Hips to not follow the skis, joints are stacked strongly over the ski edge

(B,E,PM) Dynamic Converging Sequential Hop Turns: A drill of balance, pressure control and edging

movements (See sequential Hop Turns)

- Perform on a steeper pitch, advancing down the hill in short radius turns
- Use your pole touch to keep timing and movement down the hill, and stabilize the upper body
- Helps in the development of fine ankle movements
- Now lower you COM and head down the fall line
- The goal is that you step from side to side, landing on an edged ski, so that you do not slide more than a ski width forward and you progress down the hill

(B,E,DM) Hockey Stops: Ski down the 'fall line', pivot both skis across the hill using a quick edge set to Stop all movement fore/aft and downhill.

- Maintain shin to tongue contact, stop upper body rotation by facing directly down the fall line, Plant your pole as you set your edges to stabilize and stop the movement of the upper body.
- Repeat to both sides.
- Allow for a lead change in ski orientation, uphill ahead of downhill, so pelvis remains open to down the fall line.

(B,E,PM,DM): Side Slip to Edge Set: Dynamic balance drill to improve balance on groomed and ice. COM and upper body heading the in direction of travel, down the fall line. Apply a quick edge set to stop movement down the hill. A centered stance allows for no forward or backward drift once you stop your downhill slide. Remember that with the edge set and stopping, the upper body moves slightly so it is not square to the ski, but facing direction of travel

- If there is any drifting forward or backward during your stop, your COM is not BOS
- Allow for a lead change in ski orientation, uphill ahead of downhill, so pelvis remains open to down the fall line.

(B,E,DM) Short turns to Hockey Stop: Repeat drill above from a run of short radius turns.

- The pole plant as you set your edges will allow for stabilization of the upper body. You cannot achieve this without being in the center of your skis.
- Repeat in both directions

(B,E,R,PM,DM) Short turns to a hockey slide: Short radius turns, pivot both ski across the hill, flatten the skis and slide directly down the fall line in a corridor.

- Must be centered fore/aft, upper body faces the direction of travel, so you to slide directly down the hill in a corridor.

(B): Herringbone Static balance drill: On a slight incline step into a herringbone position facing up hill. Have each person glance to see where their COM is located in relation to their skis, feel the shin to tongue contact, feel where the weight distribution is under foot. Now turn around and start to glide down the hill, maintaining the same sensations of shin against the boot, and weight under foot.

- Try to maintain the underfoot sensation on the outside ski as you make your turns. Stop and repeat the static drill if you lose the feel.
- Lower leg remains in contact with boot cuff at the 2 and 10 o'clock position at the top of the boot cuff

(B,E,P,DM): Skate up the hill: On a shallow pitch, get in to a herringbone position, now start skating up hill.

This shows you where you COM needs to be in relation to BOS when heading back down the hill. To skate effectively, you are extending off the middle of the foot, lower leg remains in contact with the boot cuff at 2 and 10. COM remains ahead of your feet. Opening and closing of the ankle joint allows for propulsion up the hill.

(B) Unhinged: Make sure you are in a stacked position, using your bones for support, fine tune movements with your muscles.

- Stand up**.** Do not hinge, or bend at the waist, this reduces your range of motion in your legs
- Being over flexed in your boots will reduce your range of motion and will cause imbalance

(B, PM): Stuff the Tip: Ski as if you did not have tails to your skis, this movement brings you forward, and Allows the tip of the ski to be engaged higher in the turn

- Scoop to engage the tip of the ski into the turn above the fall line

(B,E): Side Slip Traverse: Stand on the side of a pitch facing the trail edge. Move your COM and torso so you are facing down the fall line. Upper body, pelvis up, is facing direction of travel, down the fall line. Open your ankle joints, rotate legs, move the COM down the hill over downhill ski, allowing skis to release their edges and slide in a corridor down the hill. Then flex ankles, and tip legs into the hill, move COM and torso now across the hill, so you start a traverse.

- Develops of a solid base of support
- To release edges, COM must line up over the down side ski, belly button over downhill edge of downhill ski. The side slipping occurs when you move over the downhill ski
- Upper body remains facing the direction of travel
- The traverse occurs when you close your ankle and tip the knees slightly back up hill

(B): Head Retreater: Some skiers stand very erect while skiing and their heads and shoulders are be hind their COM, which causes them to be balancing aft of the center of the foot. A fix

- Have the skier hold their poles mid shaft and keep them in front of them, in view as they ski. They cannot achieve this if they are aft
- Slouch! Relax the shoulder and neck, allowing a slight rounding of the lower back
- Ski in parallels, the angle of the lower leg should equal the angle of the spine. This keeps you stacked bone on bone. COM over BOS

(B,E,PM): Hockey Stop Skids: Skiing medium radius turns, perform a hockey stop movement at transition, the apex and the end of your turn. Do not come to a complete stop during this drill.

- Success with this drill means you need to be balanced along the length of the ski
- Weight is centered mid foot

(B, PM): Stay in Touch: Go to uneven terrain or small bumps. Ski turns always trying to keep the entire ski in contact with the snow surface.

- Use flexion and extension of the ankle, knees and spine to smooth the ride
- COM stays the same distance from the snow regardless of the surface

(B,E,R,PM): Ski a box: Ski medium to long radius turns. Elongate the turn entry by guiding your skis into more of a boxy turn. These are also **Patience Turns**

- Eliminate the quick aggressive rotary movement of a 'Z' turn
- Smooths turn entry and allows for flow down the hill

(B, PM): Balance Progression Drill

- On a shallow green trail, slide directly down the fall line, check balance along the length of the ski.
- Now add a slight hop. Where does the extension come from, the arms and shoulders, or ankles. Evaluate what happens, is there a loss and regaining of balance
- Now slide down the same trail on a single ski. Evaluate fore/aft and lateral balance
    - If the skier is out of balance, have them keep the tip of the lifted ski on the snow. You have to move you COM forward and keep the weight over the center of the ski to keep the tip in the snow. Repeat the drill both sides
- Next, add a hop to the single ski slide. Evaluate where the extension comes from, arms and shoulders, or ankles. What happens when the skier lands, is there a loud or soft landing
    - If your skier becomes out of balance while hopping, have them plant both ski poles in the snow next to their toe pieces, now repeat the same hopping and see if they are able to remain balance. The pole drag reinforces the proper balanced position in the middle of the ski. Repeat both sides

**Note that this entire progression can also be done using a traverse on a bit steeper terrain. Remember to repeat drill in both directions. Watch for cross hill traffic! SAFETY FIRST!!

(B,E,R,PM): Take a Pause: For a seamless turn entry, at initiation stand tall, allowing yourself to glide on all four edges before tipping to the new set of edges.

- With a focus on gliding across the hill on flat ski, it eliminates any rapid rotary or pushing movements to turn the ski
- Count 2 edges, 4 edges, 2 edges, allowing for a smooth round turn entry
- Allow the ski tips to seek the fall line, do not pivot, or twist, or shove them to an edge
- COM is moving across the skis in the direction of the upcoming turn, the skis are tracking away from you and seeking the fall line

(B,E,R,PM): Shuffling Drill to Reduce Stiff Outside leg: Ski medium to long radius turns. Start to shuffle feet when your skis are in the fall line, through to turn completion.

- Lower leg remains in contact with tongue of boot
- Shuffling allows for movement in the ankle, difficult to lock the joints while shuffling!

(B,PC,E): Michael Jackson Moon Walk: AS you ski in medium radius turns, pull your feet sequentially under your COM as you move through the turns. This is a shuffling that maintains lower leg to shin contact. At initiation, tip new inside ski to little toe side, simulating a telemark turn. As you do this, your weight is seamlessly transferred to the new outside ski

- Shuffles remain small
- Shaping turns control speed
- Focus on tipping to little toe side of new inside ski at initiation

(B,PM,R): Mute Grab: while sliding down a shallow pitch, lift one ski off the snow, twist the toe toward the opposite hip, grab the ski at the toe piece, with opposite hand.(Lift right ski, twist it to left hip and grab with left hand)

- Rotary is out of the hip socket
- Develops balance and upper lower body separation

Control the relationship of the Center of Mass (COM) to the base of support to direct the pressure along the length of the ski
Level 7-9

(B): Upper Level Balance Drill: On the flats, do a straight run backward downhill. Feel the shin to tongue contact, feel the weight distribution over sole of the foot. Now turn around adjusting fore/aft stance until you replicate the same feeling under foot and against the shin.

- This is an upper level drill, do not use with beginners!
- While gliding backwards, keep ankles flexed so that the flat tail of the ski does not dig into the snow and stop movement
- Shorten the leg by further flexing the ankle in the direction you want to turn
- Be aware of traffic and watch behind you!

(B,PM): Dolphin Turns: Your ski tips simulate the movement of dolphins coming out of the water briefly, before diving back under water. As you ride up the back side of a bump, your skis will come off the snow at the top of the bump, as you turn down the back side, press your ski tips a down to maintain snow contact as you complete your turn. COM remains over BOS

- Great visualization drill when skiing bumps. This also helps develop fore/aft balance adjustments, achieved by flexing/closing and extending/opening the ankles.
- Opening of the ankle joint can be achieved by pushing both feet slightly forward, allowing the ski to ride up the side of the bump, At the top, close your ankle again to regain a balanced stance
- Push toes down the back side of the bump allowing the legs to extend into the trough

(B/E/DM/PM): Skate through turns: Skate across the hill and through the entire turn. Make sure that you enter the turn with the new inside ski moving first.

- Start this drill on flatter terrain first, as quite a bit of speed can be generated
- This is a cross hill drill, so be aware of traffic. Do not choose it on a busy day
- Make sure movements remain diagonal in the direction of travel, and not up or side to side
- Legs extend under a quiet COM and upper body
- COM moves ahead of the legs

(B/E/DM): Ski Shovel, Tip Turns, or Stork Turns: While gliding down the fall line on a green pitch, pick up the tail of one ski, keep the tip in the snow and pull your foot under your COM. Now tip that ski to the little toe side. Note how it draws you into the turn

- Make sure the lower leg stays in contact with the boot cuff, through flexing/closing of the ankle
- If balancing issues occur, forcefully drag their ski poles in the snow at toe pieces, this keeps COM forward and lower leg to tongue of the boot
- If your movement into the turn is too abrupt, slow the movement down, do not tip the ski as much
- Now before you bring this into your turns, try to pick the tail of the ski up less and less with subsequent turns until you do not lift the tail at all. YET, keep the same tipping movement at turn entry
- Drill develops early turn initiation, above the fall line. Repeat both sides
- This drill reinforces the importance of the inside ski, she is the **Brains** she is the **Wife**! She determines the arc of the turn.

(B): Hip to Be Square: On shaped skis, we no longer need to have **extreme** countered position, we ski in

and out of counter, allowing our legs to turn more than the upper body, the lead of the uphill ski allows us to actively engage both skis in a turn.

- COM of mass is moving in the direction of travel
- Place grips of ski poles on your hip bones, the ones you can feel in the front of your pants. The downhill pole should point toward the apex of your new turn, the uphill pole will point toward the tip of the downhill ski. Think uphill hip to downhill tip

(B/E/DM): Tip Turns to Short Radius Carved Turns: While gliding directly down the fall line on a shallow pitch, pick up the tail of one ski, keep the tip in the snow and pull your foot under your COM. Now tip that ski to the little toe side. Notice how it draws you into the turn. Repeat down the hill in both directions, once you develop a rhythm, just tip toward the little toe side with the tail remaining in contact with the snow, making short radius carved turns.

- While doing the tip turns, add in a pole touch
- Do not allow yourself to turn so far uphill that you stop, if this happens slow the tip a and lesson the amount or degree of tip on the ski

(B, E,PM): Take a step: As you are skiing medium to long radius turns, take a couple of steps at different points in the turn. Steps should be at turn entry, in the fall line, or at the finish. Mix it up. Discuss when it seemed most difficult to step

- Difficult at turn entry may be due by loss of balance by stopping of directional movement
- Difficulty at turn completion may be due to a settling aft of the COM
- Difficulty when heading down the fall line may be due to a stance that is too tall, and loss of directional movement down the hill
- Repeat the drill having people step only at their 'difficult' spot. Have them make adjustments in what their bodies are doing to make those steps easier.
- This drill keeps you continuously centered, does not allow for any settling aft

(B,R,E,PM): Take a 'Hockey Stop': This drill is similar to taking a step noted above, but instead of just a step, put in a short quick hockey stop movement at different parts of the turn

- Helps develop balance through a turn, you can't hockey stop unless you are in the middle of the ski!
- Do not come to a full stop during this drill, just tip your feet and skis quickly to aid in rebalancing

(B) Bungee Pole Reach: Balancing drill to help keep the COM moving down the hill. Hands in front of you, upper body facing the direction of travel (downhill). Swing your pole in a south/north movement down the fall line, while your skis move east/west through the arc of a turn.

- Good drill for balancing in steep terrain, allowing for a continuous flow down the hill
- Remember you are attached to your pole with a bungee, as you are swinging your pole to begin your turn, your body is actively moved in the direction of the new turn. COM moves across the skis to complement the action of the pole swing

(B,E,PM) Lost Leader: When standing on the side of a hill, your uphill ski is always slightly ahead of the downhill ski. Try to ski open parallel turns without this lead. This will increase the edge angle of the skis, and keep you balanced over the center of the ski.

- Note that it is very difficult, if at all possible, to ski without a lead change. This helps develop greater edge angles and active inside leg steering as well as stacking you up over the center of the ski.

(B,E,DM): Pinch and Stretch: When skiing a medium or long radius turn, to maintain a balanced stacked

position, you feel your torso on your uphill side elongate and the downhill side pinches the rib cage toward the hip bone at the waist. In a short radius turn in the fall line and in powder, as your legs turn under your center you will continue to feel that slight pinching and elongating sensation with each turn.

- A turn to the right your left side pinches, you right side elongates
- A turn to the right, your left side pinches and your left elongates
- Place your thumb at the top of your pelvic bone, as you make your turns, you should feel the gap between your pelvic bone and rib cage shorten and pinch your thumb. You can feel the muscle contraction around the waist area
- Drag your outside pole in the snow, this will help anchor the feeling as you move through your turns

(B,DM): Pole Walk: You need a functional consistent pole touch whether you are in the bumps or deep powder. Walk your poles down the hill to maintain flow down the hill and keep momentum

- Keep the zipper of your jacket facing down the hill, allowing your legs to turn under your COM
- As soon as you have made your pole touch and have skied past the pole, your other arm is moving forward, complementing the movement of your COM into the next turn, your wrist is allowing the pole to swing and touch.
- Pole touch occurs with your edge change
- Tip both skis at the same time. Edging is smooth, definitive, and progressive, not hard or sudden
- Drive knees and thighs in the direction of travel

(B,R,E,PM): Dynamic Power Wedge to Short Radius Turns: Start down the hill with very dynamic short radius wedge turns, making sure you maintain a high edge angle are you arc through the turn, very slowly lose the wedge and continue down the hill with the same cadence in a short radius turn.

- Make sure that the upper lower body separation occurs at the hip socket
- Buttocks remain basically facing back up the hill, upper body faces in the direction of travel
- Shoulder do not swing
- Change it up by doing 4 wedges, 4 short radius back to 4 wedges and so forth
- Drill allows for edge change above the Fall line
- Movement is Release, Engage then Guide

(B/E/PM/DM): Javelin Side Slip: Start a side slip down the fall line in a corridor, pick up the uphill ski, rotate your leg in the hip socket so the tip of the ski crosses over your gliding ski, and tip heads directly down the fall line

- This movement opens your hips downhill in the direction of travel
- Repeat to both sides
- Creates and reinforces upper lower body separation

(B) Pyramid of Power: Drill to help develop upper stable body in the steeps. Picture lines being drawn through your body. Lines start from the top of the head, toward each hand, forming a triangle. Lines are then connected from the hands to the waist and through the back, this forms a pyramid. This pyramid helps stabilize the upper body while the legs turn actively under this stable core.

- Do not allow the base support of your pyramid out of your visual fields

(B,E,R,DM): Do the Twist: This is a static drill out of your skis. Pick a partner, stand face to face. Hold

hands out as if you were punching your partner with both hands. Now, with the legs do the 'twist', first moving to the right, then to the left and back again. Your hips/pelvis should remain facing your partner as your legs during independently under your stable core.

- Stabilize your body further by holding your fists together with your partner
- Concentration on your pelvises facing each other throughout this drill
- Great drill for upper lower body separation in the bumps and short radius turn

(B,R,PM,DM): Outside ski to Outside ski: Skiing medium radius turns, at turn initiation, lift the new inside ski and ski only on the outside ski through the turn, at transition, place the inside ski onto the snow and now start your turn and finish it on the other outside ski.

- Important to maintain lower leg to boot cuff contact
- You may feel continual adjustments using slight flexing and extending movements to fine tune balance throughout your turns
- The lifted ski should remain parallel with the pitch of the hill, or tip slightly down toward the snow.
- For greater stability in your turns, keep the tip in the snow.

(B,R,PM,DM): Inside ski to Inside ski: Start by skiing medium radius turns with both skis in contact with the snow. After a couple of turns, pick the outside ski off the snow and start your turns on the little toe side of the inside ski. Continue through the control phase and turn completion. At transition, place the outside ski on the snow and lift the new outside ski off the snow and continue down the hill using only the inside ski.

- When on the inside ski, flexion and extension of the ankle is crucial!
- The COM, must move directionally to keep the weight over the little toe side of the foot and ski
- The outside ski should remain parallel to the pitch of the hill, or tip slightly down toward the snow
- The tail of the ski should never be higher than the tip, if that is so, you must move COM forward along the length of the ski in the direction of travel.

(B,E,R,PM,DM) : Pivot Slips: Legs are pivoted simultaneously so the skis move perpendicular to the 'fall line'. Adjust the edge angle in the snow so that a smooth downhill slide is achieved.

- COM is centered over the ski, slide is directly down the hill in a corridor. Upper lower body separation occurs at the hip socket. If there is any drift forward, ankles may be too flexed or closed, if there is drift aft, ankles may be to extended or open. Directional movements to align your COM with the downhill ski, allows to flatten and move down the fall line. Great intro for bumps.
- If you are not sliding down the fall line smoothly, try to adjust belly button over the downhill ski.
- Maintain a lead with the uphill ski of about a boot length, as you pivot down the hill, your boots will remain in the same 'corridor' with each direction change
- Any drift forward or aft means you are not balanced in the center of the ski

(B,PM,DM): Fall Line to Fall Line Turns: Think of your medium and long radius turns as starting from fall line to the next fall line. This allows for similar turns in both directions

(B,PM,DM) : Hop Down the Fall Line: On a green trail, hop down the fall line. Watch that both skis are

hopped off the snow at the same time. The ankles, knees, hips and spine, flex and extend equally. At extension the skis are lifted off the snow and land where the tips once were!

- This is not a retraction movement where the tails are lifted only, the entire length of both skis are lifted due to an explosive extension movement off the snow and in the direction of travel.
- Arms and shoulders are not engaged in the extension movement, they remain quiet as the legs extend and flex
- Landing is quiet reflecting a flexing movement upon contact with the snow surface.
- When you hop. Land where your tips were when you hopped from the snow! This requires an active forward movement along the ski!
- Now take the hop into a long radius turn. Start down the hill, tip the skis to new edges, hop using a diagonal movement, landing on same edges, feet are only slightly twisted in the air to mirror the arc of the turn the skis would make if they remained on the snow!
- Repeat in both directions

(B,R,E,PM,DM): Skip down the fall line. On a blue trail, head directly down the fall line, skipping as you go down the hill.

- A skip is a step to a ski, hop on that ski, then step to the other ski, hop on that ski.
- Upper body should remain quiet, while legs are flexing and extending
- If upper body is interfering with drill, by arms flailing and shoulders tipping, then plant the poles, baskets by the toe pieces to stabilize the upper body and repeat the drill. This stabilization reinforces the movements needed in the legs to complete the drill
- Add a bit of challenge. Move the drill into a long radius turn, quiet the skipping move just to a stepping move, step through a long radius turn. Arc should be relatively clean, with only slight rotary movements in the legs, to create the same arc as if both skis remained on the snow.

(B,R,E,PM,DM): Eigerhoff Jumps. On a steep pitch stand across the fall line, tip your knees into the hill so that a strong and high edge set is created. Now with an explosive flattening of the skis and opening of the ankle joint, jump both skis off the snow and land with a strong edge set below where you first started. Continue down the pitch. Switch sides and repeat

(B,R,E,PM,DM: Knee Cap Drill: Hold your poles across your knees, with 2 fingers on each side of the knee caps. Make medium to long radius turns. Your poles will line up with the pitch of the hill, as will your shoulders and hips.

- This provides immediate feedback for those who tip uphill or bank to create an edge angle.

(B,R,E,PM,DM): Take a bow: At turn completion, hips, upper body are heading down the hill in the direction of your new turn, to remain balanced, think of taking a bow down the hill. This movement allows you to control the pressures at the end of the turn as you are closing your joints, also sets up to extend into the next turn, pole touch and turn

(B,R,E,PM): Pelvic Tilt : Standing on the flats, while keeping your skis on the snow, tip your pelvis up and down. As you pull one side of the pelvis up, to remain centered, the opposite leg shortens, now tilt it in the opposite direction. The tilting of the pelvis causes shortening and lengthening of the legs. Move this in to a medium radius turn. As you are in the fall line, start to tip your pelvis, so that your tilt remains parallel to the tilt of the hill.

- A turn to the left, left side is tilted down, right side is up and level with the hill
- A turn to the right, right side is tilted down, left side up and level with the hill
- Allows you to keep COM over BOS!

(B,R,E,PM): single foot little toe edge falling leaf. On a pitch, stand on the little toe side of the uphill ski, open hips down the hill, lift the downhill ski and cross the tail over the tail of the uphill ski. Task is to open and close the ankle to create a falling leaf pattern.

- Lifted ski does not have to be at full right angles, just enough to open hips down hill
- Poles are helpful for balancing

Edge Control Movements
Control the edge angles through a combination of inclination and angulation

Level 1-3

(E): Walk Like a Duck: Tails of the skis together, tips facing out. Reinforces herring bone position to walk up hill.

- Adjust leg position to engage edges when walking uphill

(E): Walk like a Pigeon: Tips of the skis together, tails facing out. Reinforces wedge position, and Bull fighters' position

- Feet remain hip distance apart during this drill

(E): Rock 'n Roll: Rock forward onto toes, back to heels, rock back to centered position over arch of foot. 'Roll' (tip) skis while standing still, to big toe and little toe sides.

- Addresses fore/aft and lateral balance. Remember that when you tip to the edge, the Center of Mass (COM) moves slightly to line up over ski that is tipped to big toe side.

(E): 100, 1000 Steps: Make small steps while gliding in a straight run, then step to the right and to the left to introduce direction change

- Focus on balanced stance while gliding, and stepping out of the 'fall line' using small directional steps.
- When stepping to the right, the right foot moves directionally first, when stepping left, the left foot moves directionally first

(E): Ski Like a Duck: Pivot toes together, not allowing them to touch and glide down the hill

(E): Wedge Change Ups: While gliding in a wedge, change the size of the wedge, through steering of both feet and skis.

- Pivot point is mid foot, not from the tips
- Do not allow a large braking wedge to occur

(E): Big Toe Little Toe: Tip the skis to their edges, one to the big toe side, one to the little toe side. Now side step up the hill using this technique.

- Make sure the tips and the tails are moved up the hill evenly. Make sure the **knees** are tipping into the hill to develop the edge angle to step uphill.
- Make small steps moving the COM to remain over the edge stepped ski

(E): Skate on the Flats: Skating is achieved by pushing from an edged ski and stepping to and gliding on a flat ski. This requires a diagonal movement of the COM, in the direction of the 'stepped' ski tip. As you land on the flat ski, your COM continues it's movement forward

- COM moves ahead of the feet and skis. Movement is in the direction of travel, not up or side to side.
- Requires active flexing and extending of the ankle. As you land on the ski to glide, your COM continues to move forward, allowing for the flexing of the leg. As your COM moves over the ankle, it is maximally flexed, now extend/open the ankle joint to propel yourself forward.
- COM moves in a straight line, the legs move out and behind the COM.

(E) Magnetic Skis: The tips of your skis are 'like poles' of a magnet, that means they repel each other. In A wedge, make sure the tips of the skis do not touch, but stay the same distance apart throughout your gliding and turning.

(E, R) Angry Animals: Each ski is an animal of your choice.
- In a gliding wedge the animals do not bite each other, that is the tips of the skis do not collide or cross
- In wedge turns one animal chases the other, but they are not allowed to bite
- Take your animals on an adventure down the hill, hunting for moguls, mounts, jumps

(E/R) Pole Pivot: Demonstrate the pivoting movement of the leg with the pivot point under mid foot
- Place the middle of the foot/ski on a ski pole grip that you have placed in the snow. Pivot leg so that the tip and tail move an equal distance from midline position
- In a boot/foot drill, an hourglass form will be drawn in the snow with the pivoting movement
- On skis, the movement makes a wedge, the greater the pivot, the larger the wedge, w want a small wedge so that the feet remain under the COM, NOT outside the silhouette of the body

(E/R) You've got it Backwards: Wedge backwards down a slight pitch. Look over your right shoulder, turning to the left by steering with your left foot, look over left shoulder, turn right by steering with your right foot. Feel the pressure along the entire inside length of the arc of your foot, and shins maintaining contact with the cuff of the boot.
- Repeat this now going forward down the hill with the same sensations under foot.

Edge Control Movements
Control the edge angles through a combination of inclination and angulation
Level 4-6

(E) Boot Chase: At turn completion, try to touch the knee of the outside leg, to the cuff of the inside boot, BUT, do not allow it to touch. Actively tip both feet, boots and legs at the same time.
- The greater the boot it tipped, the higher edge angle in the snow. Make sure both skis are tipped to the same extent. This allows for speed control through shaping of the end of the turn.
- Tip both legs maintaining lower leg to boot cuff contact at the 2 and 10 o'clock position

(E,B): Scribing Pencil Lines: Traverse the hill on both sets of edges, scribing two clean pencil like
- No smearing of the track, this require tipping of both skis equally accompanied by a diagonal movement through the arc of the turn
- Think 2 and 10 position on the boot cuff
- If the inside track smears, It is an indication that the ski is not being actively guided, or COM is not over BOS
- Repeat in both directions

(E)Challenge Scribing Pencil Lines: Repeat the same drill using only the downhill ski, **THEN**, just the uphill ski.

- Make sure that whether you are a single ski or two skis, the line in the snow is as crisp as a single pencil line, not a wide marker track. Your inside half is slightly higher and ahead of outside half. Parallels of position are maintained, lower legs are parallel, thighs are parallel, both feet, knees, hips, shoulders and hands are in parallel position.
- COM must move over the ski edge when you are on the little toe side
- This is where the task becomes the teacher! Experiment with where you need to move your own COM and how you need to close the ankle to scribe a crisp single ski uphill ski arc

(E) Side Slip: Skis are across the hill, release both edges by extending/opening the ankles, flatten the skis, by moving the COM/belly button over the downhill edge of the downhill ski. Slide down the hill in a corridor a single ski length wide.

- The uphill ski leads the downhill by about a boot length, this allows the hips to remain open in the direction of travel, it also allows for both skis to remain active in the slide. The upper body is facing downhill, hands and poles are lined up, one toward the tip of the downhill ski, the other at the tail of the downhill ski
- Hips/pelvis remain open to the direction of travel
- Upper lower body separation occurs at the hip socket
- Navel lines up between the sliding skis, so that the edges do not engage

(E,PC,DM) Dynamic Wedge Turns to Dynamic Short Radius Turns: Making wedge turns, intentionally and aggressively set an edge to start your turns. The 'aggressive' movement will help to bend the ski to create short turns. Gradually close the wedge, but continue to make crisp, staccato movements until you are making dynamic short radius, open parallel turns

- As you are making your wedge turns, add the pole swing and touch to the making of your turns, so that when you move to open parallel, movements will complement turn entry

(E,B,DM,PM): Skate through turns: Skate across the hill and through the entire turn. Make sure that you enter the turn with the new inside ski moving first.

- This is a fast cross hill drill, so be aware of traffic. Do not choose it on a busy day.

(E,PM,DM) : Skate to Short Radius Turns: Start on a shallow slope, skate directly down the fall line, progressively move your directional movement more down the fall line and move directly into a short radius turn

- There is no discernible change in the upper body movements
- Legs continue to move under the COM in a short radius turn

(E,PM,R): Tick Tock Grandfather Clock: Start with a static drill, place hands on thighs , or knees with the skis parallel, tip your legs from side to side, like the pendulum of a grandfather clock. Now move this to a shallow pitch and head down the hill using the same movement to initiate direction change.

- Hands on knees, keeps upper body quiet and heading in the direction of travel
- Rotary is out of the hip socket
- As turns start to develop more turn shape, take the hands on the opposite knee and repeat, this increases upper lower body separation

(E,PM,DM) : Skate without lifting the skis off the Snow. Skate down a shallow pitch, but keep both skis on the snow. As you move your COM ahead of your feet, the skis edge and start to create carved short radius turns'

- Where you may have started descent with skis a bit wider than parallel and the tips perhaps scissored. As you gain speed, move in to dynamic short radius turns

(E,DM): Show Me Your Bottoms or Secret Message Turns: This is a progressive drill, it starts with the development of edging at the bottom of the turn, and progressively moves you to the development of an early edge change. Start by standing below the group and have them show their ski bottoms to you at turn completion by tipping their skis to an edge as they finish the turns. Progressively work using directional movements, have them show their bottoms to the trees on the side of the trail. The last step is make your directional move at turn initiation, showing the bottoms of the skis to the people up the hill from them.

- Directional movements are achieved through actively moving your inside half in the direction of the new turn, complemented by a pole touch.

(E,PM,DM) : Hopscotch Grid: Picture two rows of hopscotch boxes side by side in a line. Start in boots stepping in the boxes as you walk. See below in figure A, step one foot in box #1, next foot step into box #2 etc. Notice how your movements seem to be more side to side. Repeat the task stepping in every other box, as shown in figure B. Note how your movements are more forward. Now elongate the boxes as in Figure C, repeat your stepping in alternate boxes as seen in the numbers. Note that you have to be moving both forward and diagonally to step into each box. Now place your skis on and repeat the same movement needed for success using Figure C. Note that to maintain momentum forward, your COM must remain ahead of your feet. You step to a flat ski as if walking in the grid, move your COM directionally to your next box, as you move directionally your ski edges into the snow and you can then propel yourself onto a flat ski into your next grid box. Lower your center of mass slightly, so you have greater range of motion with your legs at the hip socket. Your COM and torso will travel in a relatively straight line forward, your legs work under your COM to propel you. Your movements are directionally, forward on a diagonal.

Figure A

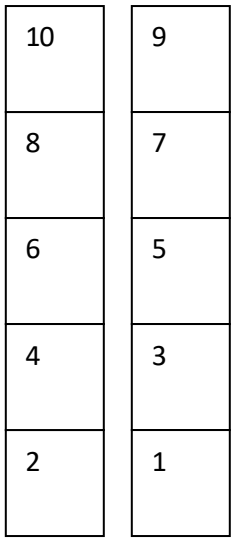


Figure B

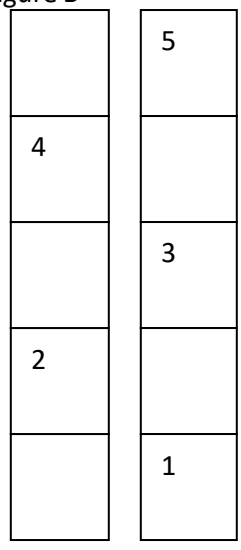
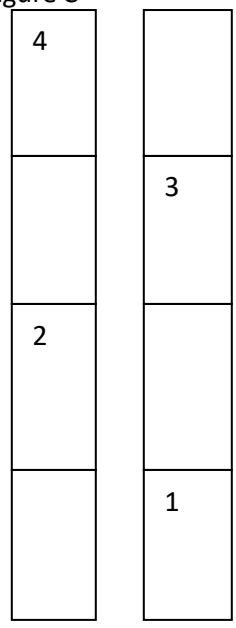


Figure C



(E,B,PM) Sequential Hop turn Drill: On a whale mound, or terrain roll, facing down the hill in a wedge. Start by stepping left foot from wedge to parallel, immediately step, the left leg back to wedge, followed by the right leg stepping to parallel, immediately followed by stepping the right back to a wedge. Continue in a rhythmic pattern. Do not move down the slope more than a single ski width. Poles are lightly in the snow, but are not used for support.

- Lower your COM during this drill allowing for greater movement of the legs and skis away from the body thus creating a stronger edge angle, and limited movement down the hill.

(E,B,R,PM) : Hockey Stops: Glide down the hill to get enough momentum, quickly pivot both skis across the hill, tipping skis for a quick edge set.

- COM is over the center of the ski, upper lower body separation occurs at the hip sockets. Navel facing the direction of travel, shoulders head down the 'fall line'. Hands are lined up over the outside ski edge, edge set is achieved by tipping both knees up the hill.
- Stop the movement of the upper body by planting your pole as you set the ski edges

(E,B,R,PM,DM): Linked hockey stops in a corridor: Start with your skis across the hill, perpendicular to the 'fall line'. Open your ankles, move your COM downhill to flatten your skis , release the edges to start a side slip, pivot both skis 180 degrees to the opposite direction, maintain a brief side slip, then flex ankles, and tip skis to an edge set. Use your pole touch to stop the momentum of the upper body.

- Balanced stance allows for the side slip to occur in a corridor. Active pole plant with upper lower body separation allows the skis to stop the side slip immediately with no drift fore/aft or down the hill. Directional movements of the COM over the downhill ski, allows for the release of the new inside ski first, as you pivot both skis across the hill.

(E,B,R,PM,DM) : Pivot Slips: Legs are pivoted simultaneously so the skis move perpendicular to the 'fall line'. Adjust the edge angle in the snow so that a smooth downhill slide is achieved.

- COM is centered over the ski, slide is directly down the hill in a corridor. Upper lower body separation occurs at the hip socket. If there is any drift forward, ankles may be too flexed or closed, if there is drift aft, ankles may be to extended or open. Directional movements allow for the inside ski to move first. Great intro for bumps.
- If you are not sliding down the fall line smoothly, try to adjust belly button over the downhill ski.
- Maintain a lead with the uphill ski of about a boot length, as you pivot down the hill, your boots will remain in the same 'corridor' with each direction change

(E,PM): Short swing to Short Radius Drill: Start with several short swing turns, which a highly pivoted turns with the pivot point being ahead of the mid foot to the tips of the skis. Then move into several short radius turns where the tips of the ski start the turns by engaging the edges above the fall line and are guided through a short radius arc.

- Short Swing turns are achieved by pivoting both skis at the same time to a quick, staccato, edge set, then immediately repeating the pivot in the other direction.
- Tracks in the snow may be windshield wiper schmear to an edged track.
- Short radius turns are achieved by tipping to the new set of edges at turn initiation, above the fall line, scooping and arcing the skis through turn completion. The tracks you see in the snow are a set of two edged tracks in a smooth arc with minimal of skidding at turn initiation.
- Short swing turns use more rotary to start the turn, and end with an edge set. Short radius turn, engage the first, then use rotary to change/tighten the arc of the turn.

(E,PM,B): Falling Leaf Drill: Start a side slip, open ankles and tip knees slightly up hill, this engages the edges and the ski tips start to arc up hill. When your forward movement slows, close your ankles COM moves forward, edges release and you will start to drift aft, and uphill, again open ankles to neutral which allows the skis to flatten and you start sliding forward and downhill again.

- Pivot and repeat the drill
- This drill reinforces fine ankle movements
- Great tactic to maneuver in a narrow chute that may be peppered with rocks or bare spots!
- Continue to link your falling leaf pivots down the hill. Note when you open your ankles to start your forward arc it is very easy to pivot the skis into a turn

(E,B) Crab Wedge: Start in a wedge position, lift the little toe side of one foot, engaging the edge, the other ski flattens, and you glide in the direction of the edged ski. Repeat to the other side by tipping the other ski to an edge, and flattening the other.

- The movement is created by simply tipping the leg in the hip socket to the big toe side
- COM stays in the middle of the skis
- Upper body remains quiet and stable

(E,B) Crab Walk-Advanced: Start in a wedge position, tip one ski to the big toe side, as you do so, lift the other ski off the snow. Glide on the edged ski a single ski length, then drop the other ski to an edge, while immediately lifting the other.

- You will be moving side to side and a bit downhill with each leg switch. You must stay centered over the ski. You will see a single edged track in the snow created by each ski when it is on the snow. This develops good balance, maintaining the COM over the ski

(E) Uphill Challenge: Head down the fall line on a slight pitch, tip both skis simultaneously to engage both edges, allow the skis to ride on their edges. See how far back up the hill your skis climb

- Make sure that you scribe 2 clean arcs in the snow
- Repeat in both directions

(E/PM/B) Traverse to Side Slip to Traverse: Traverse across the hill on both sets of edges, open your ankles and move your COM downhill so that edges release into a side slip down the fall line. Then again flex your ankles and tip your knees into the hill to again traverse across the trail

- COM and upper body move in the direction of travel. In a side slip, hips are open to the downhill path, shoulders and jacket zipper heads down the fall line. As you flex ankles to create the traverse, the COM and upper body also move in the direction of travel across the hill

(E,PM,B): Linked Hockey Stops: Pivot skis across the hill, and using a flexing motion, engage the edges. Now start to extend in the direction of your new turn, allowing the skis to seek the fall line. Allow yourself to gain speed, then pivot both skis in the opposite direction, flexing and tipping your legs to set edges.

- Add a pole plant as you flex to a stop
- Upper lower body separation is at the hip socket
- Upper body faces down hill

(E,PM,DM): Bubble Gum Turns: Pretend to have Bazooka bubble Gum stuck to the little toe side of each of your skis. As you complete your turns and tip your new inside leg toward the little toe side of the foot, attempt to pull the little toe side of the ski off the snow. Since it is stuck with bubble gum to the surface, you cannot lift it off.

- This creates greater edge angles with the inside ski
- Causes you to be more stacked over the center of the ski
- Allows you to remain active with the inside ski
- Causes a slight diagonal movement so you engage the skis from tip to tail at turn completion and sets you up for a smooth entry for your next turn, just roll the skis to new edges as you move across the skis down the hill

(E) Traversing Side Slip: Start with a traverse scribing 2 crisp arcs in the snow. Now open your ankles and move your COM over the downhill ski allowing the skis to flatten and slide down the fall line. Then again flex your ankles, tip your knees into the hill to again create 2 crisp arcs in the snow

- Repeat this in both directions
- Develops fine ankle movements
- As you move from arc to side slip, the hips open to the direction of travel, down the fall line
- Upper lower body separation occurs at the hip socket

(E) Cowboy Turns: At turn initiation, inside ski, foot and knee are tipped in the direction of the new turn. for a brief moment, your legs have the appearance of riding a horse, thus the 'cowboy', riding a horse

(E,R) You've got it Backwards: Wedge backwards down a slight pitch. Look over your right shoulder, turning to the left by steering with your left foot, look over left shoulder, turn right by steering with your right foot. Feel the pressure along the entire inside length of the arc of your foot, and shins maintaining contact with the cuff of the boot.

- Repeat this now going forward down the hill with the same sensations under foot.

(E,PM,DM,B) Knee Cap Turns: Remove your poles from your wrists and hold them horizontally in both hands, just above your knee caps. Hold your knee caps with 2 free fingers of each hand. Now make medium radius turns keeping your hands in place on your knee caps.

- Watch the angle of the ski poles, they remain parallel to the knees, as do the angle of the hips and shoulders
- This drill reinforces that your body parts and joint remain in a parallel relationship, you remain stacked over your skis
- The steeper the terrain, the more apparent the relationship
- Your shoulders remain parallel with the pitch of the hill

(E,PM,DM,B) Sparkler turns: Making medium radius turns drag both poles in the snow throughout your turns. Make sure that the outside pole especially remains in the snow

- This allows for a stacked position as you ski down the hill
- Shoulders and hips remain parallel to the pitch of the hill
- Legs create angles to remain in a balanced position throughout the turns
- The snow sprays off the end of the ski poles as if it were 4th of July sparklers!

(E,PM,B,R) 360s: On a gentle groom trail, start down the fall line. To begin your spin, tip one foot toward the little toe side. (Right for a clockwise spin, left for a counterclockwise spin.) Once you have spun 180 degrees, you are backward down the hill, tip the other leg to the little toe side to complete the 360 revolution.

- There is no rocking of the body fore or aft, you are centered over the base of support
- Develops fine ankle movements

(E,PM,B,R): Skate across the Hill: This drill reinforces the movement of extending off the new outside ski, and movements of the center of mass crossing over your skis moving in the direction of the apex of the new turn. Cross the hill in both directions to reinforce movements on each side.

- Take the drill to a green trail & skate down the fall line. COM moves ahead of the feet
- Extension is off an edged ski, land on a flat ski
- Think of moving the inside hip, the edged leg side, toward the tip of the other, stepped ski
- Move this drill into short radius turns

(E,PM,B,R): Outside Ski to Outside Ski: At turn completion instead of being focused on the outside ski, focus on the little toe side of the new outside ski, and roll from the little toes side to the big toe side as you extend in the direction of the new turn.

- This allows you to create more long leg, short leg
- Allows you to drive through any junk!

(E,PM,DM) Double Same Side Pole Plant: AT turn initiation, plant both poles on the same side, down hill, at about the toe piece. This maintains Upper lower body separation, and allows for COM to move over the skis and down the hill to start you next turn.

- Early edge engagement
- Keeps COM over BOS
- Allows you to move across the skis to release and re-engage edges before guiding them through an arc

(B,R,E,PM): Pelvic Tilt : Standing on the flats, while keeping your skis on the snow, tip your pelvis up and down. As you pull one side of the pelvis up, to remain centered, the opposite leg shortens, now tilt it in the opposite direction. The tilting of the pelvis causes shortening and lengthening of the legs. Move this in to a medium radius turn. As you are in the fall line, start to tip your pelvis, so that your tilt remains parallel to the tilt of the hill.

- A turn to the left, left side is tilted down, right side is up and level with the hill
- A turn to the right, right side is tilted down, left side up and level with the hill
- Allows you to keep COM over BOS!
- This stacked position causes you to remain over BOS and strong throughout your turns

(B,R,E,PM): Slippers an Skates: Make medium radius turns with very little edge, allowing schmearing and slipping of the skis, then repeat using a higher edge angle, so your tracks make slicing, skate marks in the snow.

- Great image for children

(B,R,E,PM): Magic Marker Turns: Picture making a bold dark line in the snow with the wide edge of a magic marker, then make a lighter line in the snow using the tip of the same marker. Your bold line will be the line you make with the outside ski, the fine line, the line you make with the inside ski.

- This is a great visual for kids…of all ages
- Change it up by having each child pick their favorite color, the outside line will be the deeper of their favorite colors, the inside will be the lighter version of their favorite color

Edge Control Movements
Control the edge angles through a combination of inclination and angulation
Level 7-9

(E,B,) (Goofy Leg Drill) Dynamic Railroad Track turns: Start in a wedged stance gliding straight down the hill. When you have gotten a bit of speed, edge one ski while lifting the other off the snow. Allow the edged ski to come under your COM, flattening, as it continues to move under your center, tip it to the little toe side, at which point you will switch legs, dropping the ski to an edge, again, allow it to drift under your COM to the little toe side. Continue to repeat.

- You must maintain shin to boot cuff contact, be centered fore/aft and laterally.
- From behind it almost looks as though your legs are disjointed or broken
- COM moves directly down the fall line, legs move under a stable core

(E/B/R/PM): Short swing to Short Radius Drill: Start with several short swing turns, which a highly pivoted turns with the pivot point being ahead of the mid foot to the tips of the skis. Then move into several short radius turns where the tips of the ski start the turns by engaging the edges above the fall line and are guided through a short radius arc.

- Your Short Swing turns are achieved by pivoting both skis at the same time to a quick, staccato, edge set, repeating the pivots in both directions.
- Tracks in the snow may be windshield wiper schmear to an edged set.
- Short radius turns are achieved by tipping to the new set of edges at turn initiation, above the fall line, scooping and arcing the skis through turn completion. The tracks you see in the snow are a set of two edged tracks in a smooth arc with minimal of skidding at turn initiation.
- Short swing turns use more rotary to start the turn, and end with an edge set. Short radius turn, engage the first, then use rotary to change/tighten the arc of the turn.

(E,B,PM,DM): Skate to Shape to Short: Start skating down the fall line, progressively allow an arc to develop with your edged ski, and continue this same movement into short radius turns. The drill is progressive, your directional movements do not vary. Use a pole touch with short radius turns

(E,B,R,PM,DM): Skate to Shape to Short to Smear: Start skating down the fall line, progressively allow an arc to develop with your edged ski, and continue this same movement into short radius turns, complete the drill, by then moving into a smeared low edge turn.

- Develops blending of movements and skills
- COM is quiet and stable and moves down the fall line, the legs turn under a stable core

(E,B,R,PM,DM) : Pivot Slips: Legs are pivoted simultaneously so the skis move perpendicular to the 'fall line'. Adjust the edge angle in the snow so that a smooth downhill slide is achieved.

- COM is centered over the ski, slide is directly down the hill in a corridor. Upper lower body separation occurs at the hip socket. If there is any drift forward, ankles may be too flexed or closed, if there is drift aft, ankles may be to extended or open. Directional movements allow for the inside ski to move first. Great intro for bumps.

(E,B,PM,DM): Wedge Javelin Turns: Start in a wedge position down the hill, lift up the inside ski, keeping the ski tip, tipped slightly toward the snow, hold the ski over the outside wedge ski.

- This requires strong balanced stance. It also keeps the hips open and facing the direction of travel.
- This reinforces where the COM and hips should be when placing both skis on the snow

(E,B,PM,DM): Javelin Turns: Start a long or medium radius turn on your new outside ski, pick the inside ski up off the ground, hold the tip over the outside ski, and tip that ski to the little toe side.

- This maintains an open position of the hips, and keeps the legs line up in balanced stacked position when again placed in the snow.
- Repeat both directions
- Skier balances on the outside ski, with the inside ski lifted and angled across the downhill ski. The knee is angled toward the inside of the turn.
- Upper body is always facing the midpoint of the upcoming turn
- Extension at initiation is down the hill in the direction of the new turn, not vertically
- Ski 6 longs, 6 shorts then both skis one the snow, 6 parallel turns

(E,B,PM,DM): Javelin side slip: Start by standing on both skis across the hill. When you are ready to side slip, move you upper body so it is facing down the fall line. With this movement the uphill ski will slide slightly forward and the downhill ski, slightly back. This creates a staggered position of the feet and legs. With a slight extension of the ankles and a movement of the center of mass down the hill over the downhill ski, the edges will release and your side slip will begin. Once moving lift the uphill ski off the snow and rotate the leg in the hip socket so that the tip is heading in directly down the hill. Continue the sideslip on the downhill leg, with the uphill leg and ski off the snow and heading down the fall line.

- Upper low body separation occurs at the hip socket
- The tip of the ski that is facing downhill and crosses over the downhill ski should be lined up with the pitch of the hill
- Repeat in both directions

(E,B,PM,DM): Hops Turns: Hop both skis off the snow, pivot them in the air, 180 degrees

- An Easier progression is to remove the skis, go to a fairly steep pitch, hop both boots off the snow, pivot them 180 degrees and land solidly using your pole plant to stabilize the upper body
- Now put on a single ski and repeat
- Now with both skis on, flex ankles, using your pole to assist you, extend off the snow in an explosive extension, pivot your skis in the air 180 degrees, land on the new edges, using a blocking pole plant to stabilize the upper body
- Flex your ankles upon landing to aid in balance and creating an edge set
- Your hop turns can use an explosive extension, or a retraction movement of the feet and skis off the snow**.**
- Your pivot point is under mid foot

(E,B,R,PM): Power Wedge to Short Radius Turns: Start down the hill with very dynamic short radius wedge turns, making sure you maintain a high edge angle are you arc through the turn, very slowly lose the wedge and continue down the hill with the same cadence in a short radius turn.

- Make sure that the upper lower body separation occurs at the hip socket. Work takes place below the waist!
- Buttocks remain basically facing back up the hill, upper body faces in the direction of travel

- Shoulders do not swing
- Change it up by doing 4 wedges, 4 short radius back to 4 wedges and so forth

(E,PM,DM,B) : Rail Road Track Turns: On a slight slope in a straight run start gliding down the hill. Start to tip both feet and legs in the same direction engaging the edges. The skis will start to carve the arc they were designed to, now flatten the skis and tip in the opposite direction.

- COM moves slightly in the direction your legs are tipped so that you are aligned over the outside ski
- Focus on the tipping of the inside leg to the little toe side to start the turn, the outside will follow
- The movement of your COM in the direction of travel allows for edging of the ski as your tip them
- COM does not move laterally to create the edge, use legs only

(E,PM,DM,B) Pain in the 'S' Railroad Track Turns: This a purely carved turn on shallow terrain. Start by heading down the fall line using shallow Railroad track turns, progress to moving diagonally down the hill on a long radius turn path, using railroad track turns.

- This is a cross hill drill, be cautious of downhill traffic
- This is a fast moving drill, use green terrain
- Focus on the movement of the inside leg first to start all of your turns
- Tracks should be crisp, not smeared

(E,PM,B): Side Slip to Traverse Carve: Stand across the hill, turn upper body down the hill, extend/open your ankles, move COM in the direction of travel(downhill), skis will flatten then slip down the fall line. With a smooth movement now flex your ankles and tip your knees into the hill to engage the edges, continue to traverse the hill.

- Repeat in both directions
- Keep a balanced position over the middle of the skis, you side slip down the fall line in a corridor
- Line up navel with downhill ski
- Traverse should scribe 2 clean arcs in the snow

(E,PM,B): Stem Step Turns: Outside ski is stepped into the fall line onto an edge. This is used in extreme steeps when you want to minimize your time in the fall line. As you step, you engage an edge, to control speed

- Ski is lifted off the snow from the middle and placed gently on the snow
- Lifted and stepped ski tip should be slightly behind the ski that is on the snow
- COM remains aligned with the stepped ski as you complete your turn
- Tactic for gnarly conditions, tree stumps, rocks, grass or other obstacles
- Use this as a step toward dynamic, converging sequential hop turns

(E,PM,DM): Fig Turns: You are the pilot of 2 Figs, one attached to each foot. When you watch planes in formation each does exactly the same thing at the same time and to the same degree. At the top of your turn gradually tip from the old set of edges to the new set of edge. COM moves in the direction of the apex of the new turn. No skidding is involved. Blue angels cannot start a new turn until they tip their wings to the other direction. The Figs cannot start their turns until you tip them to their new edges

- Now take a look back at your tracks. An airline can leave a vapor trail, see what your trail looks like! Is it a smear of 2 crisp lines?

(E,DM,B,PM): Up Hill Edge Traverse: This is traversing on the little toe side of the uphill ski. This seems to be our weaker side.

- Traverse first on both skis, most weight will be on the downhill ski
- Traverse then with most of the weight on the uphill edge of the uphill ski, make adjustments as to where your COM needs to be and needs to move to make a clean arc in the snow
- Now lift the downhill ski and traverse a clean arc on the uphill ski

(E,B,R,PM,DM) Uphill Ski Side Slip: Start on 2 skis to find your balance point. The goal is to lift the downhill ski off the snow and continue the side slip downhill, in a corridor

- COM needs to move forward toward the little toe side
- COM moves down the fall line enough to release the edges and begin the slipping down the hill
- Downhill ski is off the snow, you can point the ski tip down the fall line for balance

(E,B,R,PM,DM) Magic Marker turns! Visualize a bold color crayon or wide magic marker attached to your outside ski, a pen of the same color on your inside ski. As you make carved turns down the hill, make sure there are 2 distinct lines in the snow, the outside being 'darker' or heavier, the inside lighter

- This focus allows you to see if your weight is distributed for dynamic balance, on the outside ski
- If the inside track is heavier or darker, you may be tipping, banking or leaning up hill, with little weight on the outside ski
- If you are not as active on the inside ski, the line may be smeared!

(E,B,R,PM,DM) Empty Your Boots: Picture your boots filled with water, at turn initiation, you want to tip both boots down the hill to empty the water out of them.

- You need tipping of both boot cuffs above the fall line
- You need to tip the boots progressively through the turn
- As you tip your legs to complete the turns and head the skis slightly back up hill for shaping, think of refilling your boots again
- Skiing medium radius turns say to self, spill (to start), refill (to complete)

(E) Boot Chase: At turn completion, try to touch the knee of the outside leg, to the cuff of the inside boot, BUT, do not allow it to touch. Actively tip both feet, boots and legs at the same time.

- The greater the boot it tipped, the higher edge angle in the snow. Make sure both skis are tipped to the same level. This allows for a continued balanced position and shaping of the end of the turn.
- Tip both legs maintaining lower leg to boot cuff contact at the 2 and 10 o'clock position
- Modification on this drill, is drive the outside knee toward the top of the boot cuff, not allowing them to touch. Outside knee should line up over the boot cuff, even more edge, line it up over the inside ankle. This allows you to ski strong, remain stacked, active inside, as well as outside half

(E,B,R,PM,DM) Telemark Turns on Downhill Skis. This is not the usual way we initiate our turns, but this is a drill to allow you to feel the shortening of the new inside leg, and the flexing of the ankle.

- Start medium radius turns by significantly shortening the new inside leg, and tipping the ski to the little toe side, as you actively guide the new outside ski around the tip of the new inside ski.

Rotary Movements

Control the skis rotation (turning, pivoting, steering) with leg rotation separate from the upper body.

Level 1-3

(R): Pole Pivot: Place your ski pole between your skis in the snow, hold it while lifting a ski and

turning it around the pole. Repeat to both sides

(R): Toe Piece Pivot: With one ski off, place the other ski on top of the toe piece, use it as a pivot point for the demonstration and reinforcement of mid foot pivoting and steering of the ski.

- This movement creates the bow tie shape when using a boot drill

(R): Pole Grip Pivot: Use your pole grip to demo pivoting/turning of the foot and ski from mid foot.

(R): Daisy Wheel –Tip turn: Walk in a circle pretending the tips of the skis are stuck in the snow.

- Movement is necessary for the wedge position, and the bull fighter's position.

(R): Daisy Wheel-Tail Turn: Walk in a circle pretending the tails of the skis are stuck in the snow.

- This movement is needed when walking in a herringbone up hill.

(R): Wedge Change Ups: While gliding in a wedge, change the size of the wedge, through steering of both feet and skis.

- Pivot point is under the mid foot not the tips of the skis

(R): Arrowhead Turns: In a small wedge which is the shape of a narrow arrowhead, steer your arrow where you want to go.

(R): Point you Toes: Point all ten toes in the direction you want to go

- In a wedge, you must flatten the new inside ski so that you can point your toes, right will flatten first to go right, left to go left

(R): Cat and Mouse: One ski is the cat, one is the mouse. The ski on the outside of the turn is the cat, the ski on the inside of the turn is the mouse. The mouse is always moving ahead of the cat. The mouse is smart, it never gets caught**!**

(R): Magnets: Opposite pole magnets attract, same pole magnets repel. Your skis are the same, so as with magnets, they repel. As you steer both skis through turns, remember that the **tips of your skis will never touch!**

(R): Big Toe Little Toe Chase: Big toe of one foot is chasing the little toe of the other foot, the little is smaller and faster and is always moves before (ahead) of the big toe. The chase changes feet at each turn.

(R): (R): Foot Turns: Gummy Worm Turns. These are slight deflections from the 'fall line', only slight steering and very little shaping of the turns.

- Speed will increase due to limited shaping of the turns

(R): Ski the Alphabet: With your '**A**' (wedge), make 'J' turns and mirrored 'j' turns. Now let's make a **'C'** turn, make it in both directions and you make an **'S'**

(R): Ski the Alphabet, No ZZZZZs allowed: Ski shaping the turns to a 'C' and an 'S', not pushing to a 'Z', crossing of the tips to an 'X'!

- Prevent the ZZZZZs by **steering,** both feet and skis equally, gradually and simultaneously

- Making a small wedge, you have an 'A', as you move across the hill and use terrain changes, think of realigning the inside ski to parallel and you have made an 'H'
- NEVER cross the ski tips in and 'X', or you will have a tumble and an 'X marks the spot'!
- See how many other letters you can make

(R): Ribbon Candy Turns: These are wedge turns continuing to steer the skis across the hill and even slightly uphill, so that each turn path in the snow, nearly touches previously scribed paths. Track resembles the loops of a bow.

- Encourage continued steering of both skis until the tips are heading across the hill, to trail edge or the trees
- Finish turns with skis perpendicular to the fall line

(R): Ski to a Song…OR…Change your Tune: Turn with the rhythm of the song, this maintains turn shape consistency.

- Fast beat for short turns, slow beat for mediums and longs

(R): Cadence Turns: Count 1, 2, 3, turn to help maintain a rhythm, consistency and speed control.

(R): Light the Way or Headlight Turns: Picture headlights on your knees, point your headlights/knees where you want to go.

(R): Bear Hunt: Bear only live in the woods and hide in the trees**,** steer your tips to the trees for turn shaping and speed control, AND TO HUNT OUT BEAR!

(R): Slalom: Set up slalom course with poles, balls or cones, vary the distance between or offset, so varying turn shapes will develop.

(R): Obstacle course: Set up a course using variety of obstacles and built in use of different turn shapes.

- Builds fun into your program, off set your balls or cones, make them take a step or two back up hill, this develops balancing and dynamic movement skills

(R): Drive the Tip: In a wedge turn you want one ski tip to head toward the other, where the tip of the ski contacts the snow

- In an un-weighted ski there are 2 points of contact on the snow, one at the tail, and one directly behind where the tip is off the snow
- When you steer the skis in this fashion, both have to remain active and moving simultaneously on their opposing edges and the new inside ski will have a slight lead ahead of the outside ski

(E, R) Playful Animals: Each ski is an animal of your choice, In a gliding wedge the animals do not bite each other, that is the tips of the skis do not collide or cross

- In wedge turns one animal chases the other, but they are not allowed to bite

(R): Tips to the Trees: While skiing down the hill, make sure that you continue to the steer the tips of the skis toward the trees at the edge of the trail.

- This movement adds shaping to your turns and speed control.

(R) : Do the Twist: Allow both legs to steer/twist under a stable torso and upper body

- As you guide your skis through the arc of a turn, your legs turn more than your upper body
- Starts this slight upper lower body separation as early as Level 2, when making wedge turns

(R): How far can you glide?: Ski down the fall line, start to turn and guide your skis back up hill, see how far you can turn back up hill

- Repeat in both directions and compare which side is better
- Make it a challenge for kids. See how far they can glide back up the hill, repeat it trying to have each make it up further the next time. If you think of the face of a clock, have them try to ski back up the hill to 3 and 9, if sown the hill is 6 o'clock. See if they can beat their own 'time'!

(R,B): Rotary Static Drill. Stand on one ski, lift the other, have someone hold the ski while you try to push the person's hand out of the way. Do it toward the big toe side and the little toe side. You use a rotary movement out of your hip socket.

- Make sure the rotary movements are originating in the hip socket not the hip/pelvis or torso

(R): Gumball Turns: Using colored balls, cones and duct tape, guide children to make turns around cones**.** **Example:** Use Red and Yellow cones, and red and yellow duct tape. Red tape will go on the right boot, yellow tape on the left boot. Place the red and yellow cones down the hill. Now have them turn right around red, left around yellow. The tape on their boots will allow them to focus on keeping the red tape close to the red cone, the yellow tape close to the yellow cone.

(R): Candy Cane Turns: Picture a candy cane with some of the hook broken off, have kids make a slight hook at the end of their descent down the hill, progressively make the hook larger and larger, so they are now turning back up hill like a full unbroken candy cane**.** This can be used in a fan progression as well.

Rotary Movements
Control the skis rotation (turning, pivoting, steering) with leg rotation separate from the upper body.
Level 4-6 & Level 7-9

(R): Braquage: Rotary movement of the legs simultaneously in one direction, then the other. Rotary occurs from the hip socket.

- Very little edge is applied in this drill. Move the new inside leg to start the simultaneous rotation.

(E,B,R,PM,DM) : Pivot Slips: Legs are pivoted simultaneously so the skis move perpendicular to the 'fall line'. Adjust the edge angle in the snow so that a smooth downhill slide is achieved.

- COM is centered over the ski, slide is directly down the hill in a corridor. Upper lower body separation occurs at the hip socket. If there is any drift forward, ankles may be too flexed or closed, if there is drift aft, ankles may be to extended or open. Directional movements allow for the inside ski to move first. Great intro for bumps.

(R,E,DM) Pivot Slips in a Corridor: Skis across the hill, extend your ankles and flatten the skis to allow a

side slip to begin, once downhill momentum is gained, pivot both legs simultaneously in the opposite direction and continue your side slip.

- Repeat in both directions. Directional movements allow for the inside ski to move first, balanced stance allows for the side slip to remain in a corridor, a single ski length wide.
- COM remains facing the direction of travel, down the fall line
- Upper lower body separation occurs at the hip socket, not the waist
- Feet remain under the hips so your side slip remains in a corridor down the fall line

(R,E,PM) Hockey Stops: Skiing down a pitch, pivot both skis across the hill, flex you ankles and tip knees Up the hill to create an edge set.

- There should be not forward, backward or side slipping movement when executed properly. Look for balanced position over the length of the ski. Pole plant with upper body facing down hill will help engage the edges and maintain balanced stance.

(B,R,DM) 360s: On a relatively flat slope, start in a straight run down the hill. Start your revolution by tipping your right foot to the little toe side, this starts a clockwise rotation. When you have spun 180 degrees, tip the left foot to the little toes side which, the momentum allows you to complete the spin. Repeat the drill by tipping the left foot to spin in a counter clockwise direction.

- Upper body does not wind up to start the revolution, the legs start and complete the revolution
- Ski poles do not push you around

(R): Take a Seat: This is a stationary drill. Remove your skis and sit on the snow, or a bench. Bend your knees slightly off the snow, now take your feet and rotate them right and left, on your heels, rotating the long bones, the femurs in your hip sockets. Your legs are turning while your pelvis and torso are stationary and remaining in the same position. Do not allow the butt cheeks to come off the snow or bench. This is the movement you should realize when Making any turns, regardless of the radius. The hips do not follow the legs, the hip socket is where upper lower body separation occurs. Wok is done below the waist!

- This is a drill to reinforce rotational movements of the femur l the hip socket, when skiing, your leg rotation/pivot point is the middle of your foot

(E/R/PM): Short swing to Short Radius Drill: Start with several short swing turns, which a highly pivoted turns with the pivot point being ahead of the mid foot to the tips of the skis. Then move into several short radius turns where the tips of the ski start the turns by engaging the edges above the fall line and are guided through a short radius arc.

- Your Short Swing turns are achieved by pivoting both skis at the same time to a quick, staccato, edge set, then immediately repeating the pivot in the other direction.
- Tracks in the snow may be windshield wiper schmear to an edged track.
- Short radius turns are achieved by tipping to the new set of edges at turn initiation, above the fall line, scooping and arcing the skis through turn completion. The tracks you see in the snow are a set of two edged tracks in a smooth arc with minimal of skidding at turn initiation.
- Short swing turns use more rotary to start the turn, and end with an edge set. Short radius turn, engage the first, then use rotary to change/tighten the arc of the turn.

(R): Single Ski, boot Turns: On a slight slope remove one ski, slide in a straight run with boot off the snow, and then make a turn across the hill. Repeat the drill now with skimming the boot along the snow, and make a turn, you should find it a bit easier. The next step is to now turn the booted foot in the

direction you want to turn, the turn should be getting easier as well as tighter. The final step is to turn the boot and leg in the direction you want to go, which will make the turn even tighter.

- This drill shows you the importance of and what the inside leg does for turn shape.
- Repeat in both directions
- Now ski open parallel long radius turns as slowly as you can, using the same movements as the single ski drill

(R,E,PM): How far can you glide? Ski down the fall line, once you have gained speed, pivot both feet and skis across the hill, and move into a side slip.

- Repeat in both directions
- Which side is easier or better?
- Focus on a tall stance, with the COM moving directly down the fall line
- Any gliding fore or aft may be caused by lack of a centered stance in your side slip

(R,E,PM,DM,B): Ribbon Candy Turns: this is a great image to use on steep terrain and medium to long radius turns. To control speed you need to continue to shape your turns. At transition, allow both legs to shorten as in a retraction turn, and allow the skis to come under your stable core, continuing to shape the turn, control speed before entering the next turn.

- Turn entry seems effortless when you do this, and you control speed at the top of the turn

(R, DM) Thigh Drive: At turn initiation focus on driving the thigh in the direction of travel. This becomes a very powerful way to start as well as drive and finish your turns.

- Rotation of the femur in the hip socket is progressive
- When you can no longer steer your legs in the hip socket, you turn is complete
- Repeat with long, medium and short turns!

(R,E,DM,PM) Shovel Tip Turns/Stork Turns : Gliding down a slight slope, lift one ski tail off the snow, pull your foot under your COM, tip your ski to the little toe side while still engaging it in the snow , tip has to remain engaged in the snow

- If turning is too rapid or aggressive and sends you into a 180 degree spin, slow the movement of tipping to the little toe side of the foot and reduce the amount of toe tip as well
- Now gradually, using this same movement, stop lifting the tail of the ski, yet make the same movement to start your turns.

(R,E,DM,PM): Leg Rotary Isolation Drill. On a relatively flat surface, ski in a wedge with tips together, then using a very flat ski, rotate legs in hip sockets so that tails are together and tips are apart.

- This movement isolates the rotary movements from the hip socket only.
- Using a flat ski is imperative!

Pressure Managing Movements

Control the relationship of the Center of Mass (COM) to the base of support to direct the pressure along the length of the ski
Control the pressure from ski to ski and direct the pressure toward the outside ski
Regulate the magnitude of pressure created through ski/snow contact
Level 1-3

(PM): Rock 'n Roll: Rock forward onto toes, back to heels, rock back to centered position over arch of foot. 'Roll' (tip) skis while standing still, to big toe and little toe sides.
- Addresses fore/aft and lateral balance. Remember that when you tip to the edge, the Center of Mass (COM) moves slightly to line up over the ski that is tipped to big toe side.

(PM): Walk the Line: Step over a drawn line in the snow while gliding down the hill
- Develops balance fore, aft and lateral.

(B/PM/D): Gorillas & Giraffes: Stretch up as tall as you can, then flex your joints to be as short as you can.
- Make yourself tall at turn initiation. This extension allows for the flattening of the skis, edge change and a directed movement of the COM toward the new turn.
- Flexion of the joints starts from the ankle. At turn completion start flexing all joints to become small as a gorilla
- Remember to maintain dynamic balance, the outside leg lengthens at turn initiation and the inside leg shortens.
- These flexion/extension movements are very slight at the wedge turn level

(PM): Flex and Stretch: Exaggerate the flexing and extending of the joints from ankles to spine. Remember that most people do not show much flexion or extension even when your demo exaggerates it, so have them exaggerate so they can better feel the desired movements.

(PM): Ski With Attitude: Ski light, ski heavy, ski loudly, ski softly. This develops understanding of flexion and extension to manage the pressures through a turn. When walking do not walk heel to toe, but **stomp** on a flat foot. COM moves over BOS

(PM): Ski Mini Moguls: Ski over moguls or changes in the terrain maintaining the same pressure on the entire length of the ski, no matter what the terrain does.
- This is achieved through flexing and extending of the ankles, allowing for the ski to glide smoothly through terrain variations, creating flow from turn to turn.

(PM): Stay in Touch: Pick a partner, face each other with the palms of your hands together. There is a leader and a follower. Have the leader start to flex elbows moving their hands back at forth at different rhythms and different distances. The leader must adjust to keep contact with the hands. This simulated terrain changes and compensatory movements of the legs.

(PM/B): Jack Rabbit Jumps: While gliding down the hill, hop both skis off the snow landing balanced
- Hops can be achieved through retracting legs and skis off the snow
- Hops can be achieved by an explosive extension pulling the skis off the snow, leg joints flex as you land back on the snow to maintain balance

(PM): Flex Toward the Snow, not Toward the Skis: This focus allows you to stay in contact with the boot cuff at 2 and 10, not at noon. Creates edging movements and efficiency

(PM): Dolphin Turns: Picture how a dolphin swims in the water, coming up out of the water, then diving back down into the water. Use this image to open and close the joints as turns are bring made. Open joints to come out of the water, initiating a turn, close joints to complete turn and go back in to the water. Draw lines in the snow with blue chalk dust, or cones to give kids a visual where they need to come out of the water.

Pressure Managing Movements
Control the relationship of the Center of Mass (COM) to the base of support to direct the pressure along the length of the ski
Control the pressure from ski to ski and direct the pressure toward the outside ski
Regulate the magnitude of pressure created through ski/snow contact
Level 4-6

(PM/R/E): "Avalanche" (Hockey Stops): While skiing or gliding down a slope, allow the skis to flatten using a slight ankle extension, pivot both skis in the same direction across the hill and tip both skis simultaneously to an edge. This creates an avalanche effect of snow spraying off the skis as you use this 'hockey stop ' technique.

- If you use a 'power' wedge to stop, you will only make piles. Create and avalanche, not piles!

(PM/R/E, DM): Put out the forest fire: While skiing open parallel turns and turns to a stop, think of spraying snow from the fall line to turn completion, dousing the fire in the woods with a spray of snow.

- If you use a 'power' wedge to stop, you will only make piles. So create and avalanche, not piles!

(PM): Mini Leapers: Use moguls or changes in the terrain to extend at the top of the turn, lighten the skis and steer them in the direction you want to go.

- Remember that your legs are short at the top of a mogul, use this flexion in the joints to hop off the top of the mogul, twist your feet in the air and complete the turn

(PM,B,R,DM) Air Carve: Spring off the top of a bump, move the skis to the new set of edges, carving through the air. Land with a flexing movement engaging the new set of edges into the snow.

- This drill requires an explosive directional movement to maintain a balanced stance when landing on your new edges.

(PM) Retraction Turns: At turn initiation instead of extending in the direction of the new turn, allow your legs to shorten by pulling them up under your COM, or allowing the terrain to flex your legs under your COM. As the skis come under the COM, they are flattened and you can now tip them to the new set of edges.

- This drill is great for bump skiing. This is also very a helpful tactic when skiing powder and crud.
- COM is still actively moving to keep up with the skis

(PM,B) Gas Pedal Turns: At the top of a bump, thing about stepping down on a gas pedal of a car. Very slowly press your toes down as if pressing on the gas, and ski down the back side of the bump.

- When turning to the right, your right foot is using the gas pedal **first**, when turning left, your left foot is on the gas pedal. This also allows you to keep aligned over your skis, and not get kicked back.

(PC,B) Stay in Touch: Start with a hand to hand drill. Pick a partner, facing each other put your palms together. One of the pair is the slope and starts moving their hands almost like pedaling a bicycle, the other person has to try to maintain contact with the other person's hands regardless of how fast or slowly they move their hands forward and away. Now repeat the drill while skiing using your skis to maintain contact tip to tail regardless of the changes in the terrain.

- Your legs have to continually be flexing and extending as the changes in the terrain occur. Your COM maintains the same distance from the snow.

(PC): Long Leg, Short Leg: At turn initiation the outside leg becomes long, the inside leg short.

- The lightening and shortening of the inside leg, and the lengthening of the outside leg, coupled with directional movement provides for a smooth turn entry
- Remember that even though the outside leg is 'long', there is still flexing and suppleness of the joints
- Movements are smooth and progressive

(PM): Inflate-Deflate: Soften/deflate new inside leg at turn initiation, strengthen/inflate new outside leg while moving directionally crossing the fall line toward the next turn.

- Outside leg remains strong and long through the arc of the turn
- Once you cross the fall line, imagine the air beginning to deflate from the outside leg, and inflating the new outside leg

(PM, DM): Pedal a Bicycle: When riding a bicycle your legs are always in motion, as one leg gets long, the other gets short. Pedal a bicycle through your turns

- Think of using toe clips or clipless pedals, the most efficient movement to pedal is to pull the foot of your long leg across the bottom of the revolution. Use this action and motion to start every turn! In skiing as you have the sensation of pulling the foot across the bottom of the revolution, do not allow the ski to come off the snow, but allow the foot and ski to tip toward the little toe side and shorten the leg, as you would in pedaling a bike.
- Right leg shortens and tips to the little toe side to start a right turn
- Left leg shortens and tips to the little toe side to start a left turn
- As your COM moves in the direction of the new turn, one leg shortens, other leg lengthens and the weight is transferred to this new outside ski

(B,PM,DM) : Hop Down the Fall Line: On a green trail, hop down the fall line. Watch that both skis are

hopped off the snow at the same time. The ankles, knees, hips and spine, flex and extend equally. At extension the skis are lifted off the snow and land where the tips once were!

- This is not a retraction movement where the tails are lifted only, the entire length of both skis are lifted due to an explosive extension movement off the snow and in the direction of travel.
- Arms and shoulders are not engaged in the extension movement, they remain quiet as the legs extend and flex
- Landing is quiet reflecting a flexing movement upon contact with the snow surface.
- When you hop. Land where your tips were when you hopped from the snow! This requires an active forward movement along the ski!

(B,PM,DM): Skip Down the Fall Line: On a gentle slope think of skipping directly down the fall line. You Stand on a single ski and hop once, then step the other ski down while lifting the second ski, hop again, carry this skipping movement down the hill.

- Watch movements of the body and how the skipping is achieved. Make sure the legs are doing the skipping and not being assisted by the arms and upper body
- Develops ankle flexion and extension
- If upper body continues to be involved, plant your poles by your toe pieces and drag them in the snow as you repeat the same skipping task

(B,PM,DM): Cowboy Legs: Little toe, little toe, big toe, big toe across the hill. Now repeat the drill just with the up hill ski. As you tip to little toe side, not only close the ankle, but move the tension to the top of the boot, the corners of the boot.

- Mix the drill up by tipping only the uphill ski from little toe to big toe to get the movement of edge engaging, releasing and re-engaging

Pressure Managing Movements
Control the relationship of the Center of Mass (COM) to the base of support to direct the pressure along the length of the ski
Control the pressure from ski to ski and direct the pressure toward the outside ski
Regulate the magnitude of pressure created through ski/snow contact

Level 7-9

(B/PM) Advanced Challenge Single Ski Glide: While gliding on a single ski, hop off the snow and land on the same ski

- Hint, if there is a balance issue, keep the tip of the lifted ski on the snow, this allows for a more centered stance. Make corrections if you see any upper body tipping or leaning in an attempt to maintain balance while gliding. Hold 'functional tension' in the abdominal muscles while gliding, this helps to relax the ankles for better control of balance. Repeat the drill again keeping the tip off the snow again watching for signs of imbalances. Repeat the drill on both sides.
- Add upper body stability by planting and dragging your poles in the snow at your toe pieces. Keep tension in your wrist so the planted poles stay at the toe pieces and do not drift aft. This keeps your COM forward

(B) Ramp it up Single Ski Glide: Gliding on a single ski, hop off the snow and switch feet as you land, in the same track. As you look at your track in the snow, there should be a single smooth track

- Watch for hands and arms to remain in a balanced stance position, shoulders do not tip, but remain parallel to the hill. Repeat with both legs
- Hopping occurs using the ankles and legs, not the arms or shoulders to extend you off the snow.

(B,E,PM) Sequential Hop Turns : On a whale mound, or terrain roll, facing down the hill in a wedge to hold yourself from gliding down the fall line. Start by stepping left foot from wedge to parallel, immediately step, the left leg back to wedge, followed by the right leg stepping to parallel, immediately followe d by stepping the right back to a wedge. Continue in a rhythmical hopping pattern. **Do not move down the slope more than a single ski width**. Poles are lightly in the snow, but are not used to keep you from advancing down the slope

- Lower your COM during this drill allowing for greater movement of the legs and skis away from the body thus creating a stronger edge angle, this limits movement down the hill.
- Lower leg must remain in contact with the front of the boot to maintain a centered balanced stance.
- Upper lower body separation occurs at the hip socket, zipper remains facing down the hill
- Poles are not to be used to stop your forward movement, forward movement is stopped by the edge angle of the ski in the snow and how far across the fall line the skis are placed with each hop
- Torso remains the same distance from the snow, the legs are flexing and extending under a stable core

(B,E,PM) Dynamic Sequential Hop Turns: Now bring the above drill down the hill, and into short radius Turns

- Make sure you use a pole touch to keep movements accurate and directional
- Movement down the hill is in a short radius type turn
- Speed control is through edging and stepping the ski out of the fall line

(PM): Inflate-Deflate: Soften/deflate new inside leg at turn initiation, strengthen/inflate new outside leg while moving diagonally across the skis toward the upcoming turn.

- Outside leg remains strong and long through the arc of the turn
- Once you cross the fall line, imagine the air beginning to deflate from the outside leg, and inflating the new outside leg

(PM,R,B,E): Leapers: Good drill for the steeps. Start by hopping both skis off the snow, using both legs allows you to create a solid platform to extend off of. Twist both feet and skis in the air for a direction change, land flexing ankles to complete your turn. Repeat for subsequent turns.

- Start this drill by skiing 2 or 3 medium radius turns so that you create energy in the ski through the shaping of the turns, take this energy then into an explosive extension of your joints at turn initiation in the direction of the new turn
- Start from a flexed position at turn completion, using both legs, creating a solid platform
- Hopping is not vertically but directionally down the hill
- Flexing of the ankles, hips and spine allow for turn completion and set up for subsequent turns

(PM,B,E, D): 1000 Steps: This drill allows you to control pressure in icy conditions. If too much pressure is

applied, you will lose edge contact in the snow. On intermediate terrain, make small steps as you ski through medium radius turns. At turn initiation focus on moving the COM directionally so that the new inside ski steps into the turn first.

- Directional movements allow you to remain over the edge of the ski
- Step softly through turns so that you achieve a solid edge hold
- Speed control is through the shaping of the turns
- This is a fast cross hill drill, be aware of traffic!

(PM,B,E): Buddy Pull: Pressure control drill to improve a skier's alignment and stance. Stand downhill from a buddy, using ski poles held at mid shaft, the uphill person holds the poles with the baskets facing up hill. Have the downhill person hold the ski pole grips and try to pull the person down the hill. Watch the angles created! The stance taken in resistance of being pulled down hill increases strength in alignment of body parts.

- Make sure that there is a lead change in the ski positions, change the amount of lead change to see the affect of the angles created

(PM,B,E,DM): Skating: This is a good pressure control drill that allows for the development of dynamic movements edge to edge through the arc of a turn. Skier moves from a flat ski using a directional movement of the COM ahead of the feet. As you roll to the big toe side of your foot you extend/ open the ankle and propel yourself forward into a glide on the stepped flat ski.

- You can land on the little toe edge of the ski, or a flat ski, glide for a short distance as you continue to move your COM in the direction of travel. While moving your COM in the direction of travel roll over to your big toe side, with an active extension to continue moving yourself forward.
- Skating movements develop balance over the ski and dynamic movements edge to edge.
- Movements are forward, not vertical or side to side
- COM moves forward with the legs extending behind and outside a stable body silhouette
- COM remains aligned over mid foot

(PM,B,E,R): Outside Ski to Outside Ski: At turn completion instead of being focused on the outside ski, focus on the little toe side of the new outside ski, and roll from the little toes side to the big toe side as you extend in the direction of the new turn.

- This allows you to create more long leg, short leg
- Allows you to drive through any junk!
- Provides for smooth outside leg weight transfer and turn initiation

(PM,E,B,R): Falling Leaf: Improves pressure control for the bumps and uneven terrain. Standing across the hill with ankles flexed, knees up hill to create a platform. Flatten the tails of the skis by slightly tipping your knees downhill, while flexing your ankle, the skis will start to drift backward and down hill. Now move the COM slightly forward while you open your ankles which centers your balance over the ski and the backward drift stops, flatten the tips of the skis by releasing the edges, the skis then drift forward and down the hill. Repeat these movements.

- This drill emphasizes the importance of a centered stance and subtle pressure changes through ankle movements
- Subtle steering movements and edging movements allow edge release and set as you move down the hill
- Develops flexibility of the ankle joint
- Add a turn/direction change into the mix. After your flexing and drifting aft, open/extend the ankle joint, allowing the skis to now drift forward and move your COM in the direction of travel and a direction change

Directional Movements
Level 1-3

(DM): 10:2: Rock fore and aft with skis on, Shin is 12, calf is 6. Tipping legs in a purely lateral direction is the 3 and 9 o'clock position. Now flex ankles and tip your legs diagonally until you feel your lower leg at the 10 and 2 position at the top of the boot.

- Think of the area at the top of your book cuff around where the tongue of the boot meets the rest of the boot cuff, this is close to 2 and 10

(DM): Hula Hoop: To keep a hula hoop at your waist, you have to move your hips forward and diagonally. At turn initiation, move your COM diagonally as if working a Hula Hoop

- To achieve this, the movement is slow and deliberate. Any quick moves will impact ski snow contact, perform the movements in slow motion

(DM): Imaginary Box: Visualize a box around the tips of your skis, at turn entry move your COM toward the downhill corner of the box.

- Think of the COM near your belly button

(DM) Move to the Face of the clock: Picture standing in the middle of a huge clock, ski tips face 12. At turn initiation, move your COM toward the 2 or 10 o'clock position depending upon the turn you are making.

- Since you are standing on a hill, the uphill leg is shorter and ahead of the downhill ski
- Pelvis is 'open' toward downhill, facing direction of travel
- Do not square up with your ski tips, that impacts edge angle! Lining up with the ski tips will reduce the edge angle in the snow, potentially flattens the tails of the skis, so that at turn completion, your tails wash out. It is then more difficult to make a smooth turn entry, without a push, shove or pivot at initiation.

(DM): Better to See you With…3 Eyes (Show me Your Belt Buckle): Think of your navel as a third eye which has to be able to
see and directs you where you want to go.

- Stance must be tall, with COM centered over the feet, stand tall, thereby keeping your third eye open and looking in the direction of travel. Do not bend at the waist.

(DM): Tip toes: In a wedge position, at turn initiation, flatten the new inside ski by tipping your foot toward the little toe side.

- For a right turn, the right foot is tipped to flatten the ski and start the turn. For a left turn, the left foot is tipped to flatten the ski and start the turn.
- As your guest gets more comfortable with this movement, point out that to flatten, the movement occurs in the hip socket, so the knee is moved slightly as is the COM, just a slight bit. This allows you to remain balanced over the entire length of the ski as your make turns in either direction.
- Think of pulling the entire big toe side of the foot to the top of the boot, this allows the ski to flatten so it can be directed where you want it to go!
- If the above image does not work, have them tip the entire foot toward the little toe, this again flattens the ski and allows it to be steered. Do not have your students 'press' the little toe side down, this causes the COM to move to far inside the turn, and weight is no longer directed to the new outside ski.

(DM,R): Scoop the Ice Cream: At the top of your turn, engage new set of edges and drive them through a rounded arc as if you are scooping ice cream (Ben and Jerry's of course…) from a frozen round container.

- Start with shovel Tip turns- Lift the tail of one ski, while gliding down a slight slope, tip that lifted ski toward the little toe side, look what happens
- Now return to keeping both skis on the snow, using the same toe tipping movement.
- Now picture scooping Ben and Jerrie's Ice Cream, your favorite flavor!

(DM): Head Lights, Light the Way: Think of headlights attached to your knees, point your headlights where you want to go to light the way.

- Great drill for kids to get the turning of the toes where they want to go

(DM): Into the Future: Pick a point down the hill where you will make your next turn. At turn initiation, move your COM across the skis and in the direction of the apex of the planned turn.

(DM): Face the Clock: Think of the top of your boots as the face of a clock. Shin forward against the boot cuff, is 12, calf is directly opposite at 6. Statically tip from edge to edge, this position is 3 and 9 on the clock face. As you make your turns, tip your foot, and lower legs so that you touch 10 and 2 on the clock face depending on the turn you are making.

- For a right turn, your lower leg will be against the 2 o'clock position, for a left turn, the 10 o'clock position

(DM): Belly to Belly: At turn initiation, move your belly button toward the belly of the new turn

Directional Movements
Level 4-6

(DM,B,E,PC): 1000 steps: On intermediate terrain, make small steps as you ski through medium radius turns. At turn initiation focus on moving the COM directionally so that the new inside ski steps into the turn first.

- This is a cross hill drill, be mindful of downhill traffic
- This is a very fast moving drill as you are stepping to and edged ski, so speed control is through shaping of your turns

(DM): Imaginary Box: Visualize a box around the tips of your skis, at turn entry move your COM toward the downhill corner of the box.

- Great drill for kids to develop diagonal directional movements

(DM): Skate on the Flats: Skating is achieved by pushing from an edged ski and stepping to, and gliding on a flat ski. There is a directional move to again move to the edge of the gliding ski, so you propel yourself forward.

- COM moves ahead of the feet and skis. Movement is in the direction of travel, rather than up or from side to side or vertically
- Legs move under a stable core

(DM): Better to See you With…3 Eyes: Think of your navel as a third eye which has to be able to

see and directs you where you want to go.
- Stance must be tall, with COM centered over the feet, thereby keeping your third eye open and looking in the direction of travel. Focus is on standing tall, not bending at the waist.

(DM): Bungee Skiing: There is a Bungee wrapped around your waist and at each turn, you are being pulled in the direction of your new turn by that bungee.

(DM): Slow Dancing: You are slow dancing with your partner, you are **not** at arm's distance away, but hugged closely. As your partner moves toward you, you step away, yet maintain contact, as your partner moves away, you step forward to maintain contact.
- Slow dance with the hill, always moving in the direction of your new turn, as if slow dancing with a partner down the hill.
- Chest is open, as well as your COM and moving diagonally down the hill at turn initiation.

(DM): Tip Toes: Tip your feet so you stand with one foot on big toe side, one on the little toe side.
- On the big toe side, your weight usually concentrated on the arc/heel of the foot.
- On the little toe side, you need to move diagonally and slightly directionally so weight remains in the middle of the base of support and will line up with the edge of the new outside ski.
- Movement is not tipping side to side (3 to 9), but it is a forward and diagonal movement (2 to 10)
- When tipping toward the little toe side think of lining up the arc side of the foot over the little toe
- Caution, in the words you use, you do not want to say 'press the little toe side down', as this may cause a movement of the COM too far inside and weight will not be on the outside ski, but the inside ski

(DM,E): 2-4-2 Drill: You are on 2 edges at turn completion, at the transition/initiation of the new turn, extend your ankles, so that you start to flatten the skis to rest on 4 edges, ski 2 full ski lengths before tipping again to the new set of edges…2 edges.
- Remember that the movement is diagonal, toward the little toe side
- COM moves in the direction of apex of new turn
- This drill reduces the quick pivoted turn entry of the 'Z' turner

(DM,R): Scoop the Ice Cream: At the top of your turn, engage new set of edges and drive them through a rounded arc as if you are scooping ice cream (Ben and Jerry's of course…) from a frozen round container.
- Movement that starts the turn is tipping the new inside foot toward the little toe side, so the tip engages above the fall line

(DM,E,R): Gorilla Turns: Maintaining a very low and very wide stance ski long radius turns.
- Must have a very effective diagonal move in order to maintain edge angles.
- This very exaggerated stance requires active steering/guiding of both skis.
- COM moves across the skis and does not come up

(DM) Walk down the Line: Draw a line down the 'fall line'. Make short radius turns down the hill, making your pole touch on the drawn line in the snow.
- You pole swing and touch complement the movement of the COM
- Legs and skis turn East to West, pole swing is North to South

(DM): Iron Out the Wrinkles: As you flex your joints at turn completion, to manage the pressures that

develop through the course of the turn, wrinkles form at the top of your pant legs. At turn initiation think about removing those wrinkles as you use a diagonal movement to initiate your new turn

- Sensation that the new inside hip is moving forward and upward, removing the wrinkles that occur at the top of your leg during flexing movements of the previous turn.
- This is a movement of the COM across the skis in the direction of the apex of the upcoming turn

DM Progression:

Step 1. At turn initiation, pull the big toe side of your foot to the top of the boot. This tips the ski to the little toe edge. (Right foot to go right, left foot to go left). Line your arch up over your little toe!
Step 2. Add to the tipping of the foot, the engaging of the lower leg to the boot cuff at the 10 and 2 o'clock position in the boot
Step 3. At initiation, now add pointing of the knee in the direction of the new turn, think 10 and 2!
Step 4. At turn initiation, drive your inside thigh in the direction of the new turn
Step 5. At turn initiation, take your new inside hip bone and move it in the direction of the new turn. (There is a sensation that the hip is moving up and toward the apex of the new turn), a diagonal move. Outside hip toward inside tip!
Step 6. Draw a line from the top of your head, between your eyes, through your navel, to the ground. Drive your entire inside half in the direction of the new turn. Use the pole swing and touch to complement the movements into the new turn.

- The ultimate goal of directional movements in to move your COM down the hill in the direction of your new turns and the direction of travel. It is intimidating to have your guest try to 'throw' their body down the hill in order for them to have their COM remain over the center of the ski. Using this progression, working from the snow surface up, allows you to achieve directional movements slowly and progressively, gaining confidence and skill with each step.

(DM,E, R): Pole Bend: In a static position plant your pole close to you mid foot on the little toe side. Make sure that your vertical thigh is touching the shaft of the pole. Rotate your leg in the hip socket and allow the thigh to press against the pole in an attempt to bend it. This is the movement/sensation you should have at turn initiation.

- The hip does not twist to move the pole, it is achieved by active thigh rotation in the hip socket.
- Thigh remains vertical
- Repeat in both directions

(DM): Thigh Drive: At turn initiation, move/drive your new inside thigh in the direction of the new turn

(DM): Tush Push: What our goal is in directional movements is to take our hip, and move it diagonally across the ski toward the apex of the upcoming turn. Think of taking you hand and placing on your butt at turn completion. As you begin your turn moving your COM in the direction of the apex of the new turn, take you hand and literally push your tush where you want to go.

- Making a left turn, take your right hand and place it on your right butt cheek and move your COM toward the apex of your left turn
- Making a right turn, take your left hand and place it on your left butt cheek and move your COM toward the apex of your right turn.
- (This drill has also been named by PSIA as the 'Ass Grab')

(DM): X Marks the spot…the Direction that is: Cross your ski poles in front of your knees, while the tips are securely planted in the snow. Now move your entire body forward to bend the poles

(DM) Cowboy turns: At turn initiation think about the tipping of the new inside ski toward the little toe side, this allows the ski to flatten and be steered, but also for a brief moment gives the appearance of riding a horse.

- This drill can be ramped up a bit, but having your guest not only think about tipping the foot to the little toe side, but also actively moving the knee in the direction of the new turn. This provides for a greater 'cowboy' affect of the legs for just a second. Remember tip right first to go right, and left first to go left.

(DM,PM): Frog Hunt: Frogs like to hide behind and under logs in the forest. At turn initiation, as you swing your pole in the direction of your new turn, pretend to be looking down hill, over a log, to find a frog on the other side.

- This causes movement of the COM in the direction of the upcoming turn

(DM): Pole Pass: Ski medium radius open parallel turns. Instead of a pole touch at turn entry, hold both poles at mid shaft in the outside hand, and at turn entry, pass the poles to your other hand behind your back. This forces your center of mass to move forward in the direction of your new turn.

- Pole pass is done from outside hand to new outside hand, which keeps the body stacked and allows diagonal movement
- Right hand passes poles behind back for a right turn, left hand passes poles behind back for a left turn

(DM, B,R,) 360s: On a relatively flat slope, start in a straight run down the hill. Start your revolution by tipping your right foot to the little toe side, this starts a clockwise rotation. When you have spun 180 degrees, tip the left foot to the little toes side which, the momentum allows you to complete the spin. Repeat the drill by tipping the left foot to spin in a counter clockwise direction.

(DM, B,) Snow Shuffle: Shuffle feet back and forth under your hips in a right, left, right, left fashion

- This is closing and opening the ankle joint needed for fore aft balancing & pressure control movements
- Make sure during this drill that your shin remains in contact with the front of the boot
- Shuffling movement is very slight, only 2-3 inches, which still allows shin to boot tongue contact
- As you shuffle through your turns, make sure that your new inside ski shuffles forward at turn initiation, which begins your directional movement and weight transfer.
- When the inside foot shuffles forward, the tip of the ski should not pass beyond the outside ski tip, they should be no more than even tip to tip, or slightly less, this will help keep your hips open to the new turn.
- Shuffles are done slowly so they do not engage the pelvis or upper body or cause extraneous movements

(DM) Car Push: Hold your ski poles horizontally in both hands. Picture yourself pushing a car that is stuck in the snow. You do not push with just your hands, but you put/move your entire body into the movement. This action simulates the diagonal movement you need at turn initiation

(DM) Force be With You: At turn initiation allow the force of gravity to help you move your COM over the

skis and toward the apex of the new turn. This movement allows the skis to flatten, seek the fall line and enter the turn.

- This allows for a slow and more rounded turn entry. Cure for the 'Z' turner

(DM): Rick Shaw Drill: Place the grips of your poles on your hip bones at the front of your pants. The pole Baskets are heading down the hill in the direction of travel. As you begin your turns think about moving across the ski, so that the downhill pole basket and tip point in the direction of the apex of the new turn and the uphill pole basket points toward the downhill ski tip.

- As you move down the hill, if you think of the fall line as being at 12 o'clock on the face of a clock, your pole tips should move from 10-2, or 2-10. This allows for a slight countered relationship to occur, legs to upper body and pelvis

(DM,B):The Poles Have it: Check out arm position and the pole swing. Some good things to be aware of

- Arms too high reduces stability causing banking or moving aft
- Arms too low causes you to bend forward, hinging at the waist and reducing Range of motion of the joints
- Arms too far back cause you to sit back
- Arms too narrow inhibit lateral angulation and inhibits the development of countered position
- Arms too wide inhibit the pole swing and upper lower body separation
- Outside hand too high causes banking
- Inside arm too low causes banking
- Arms crossing in front of body during pole swing causes rotation and skidding of the turn
- Dragging of the outside pole, and using it as a rudder, shows unbalanced position

(DM): Up Hill Hip to Downhill Tip: At turn initiation think of moving your uphill hip toward your down hill hip, as you move your mass across the skis in the direction of the apex of the new turn**.**
This is just another focus for achieving directional movements

- Keep tension in the hip so that you do not allow it to drop aft
- This is the No Yield Zone! Do not yield to the forces that say, Ha the turn is done, do not settle aft!
- **Steer up, Don't Square up!**

Directional Movement
Level 7-9

(DM,E,PM) Skate through the Turns: Start by skating on the flats

- Make sure that the inside half moves into the turn first. COM, as with skating on the flats stays ahead of the legs.
- Be aware of hill traffic as this is a cross hill drill.
- Skate through our turns on a slight pitch, make sure your new inside ski moves into the turn first
- Speed control is managed through turn shaping

(DM,E,B): Skate to Short Radius Turns: On a blue terrain pitch, start by skating down the fall line, when you have generated enough speed transition into a short radius turn and continue down the fall line.

- Diagonal movements are necessary for the success of this drill. Your COM is moving slightly ahead of your feet.

- As an observer, you should see no change in movement of the upper body when the skier transitions from skating to short radius turns. Arm movements in skating help with the directional movements, and the arm movements are transitioned into a pole touch in your short radius turns.

(DM,E,B): Skate to Shape to Short: On a blue terrain pitch start by skating down the fall line, as you develop speed, start adding a little shaping as you step to an edged ski, then blend it into short radius turns.

- Directional movements are necessary to the success of this task. The torso and COM are moving slightly ahead of the feet.
- For the shaping phase of this drill, hold onto the edge a bit longer to begin to shape an arc. As you start shaping the turns, diagonal directional movements do not change, but are maintain right through into the transition of short radius turns. Lower you COM so as to allow for greater movement in the legs.
- Movements of the COM are diagonally, with movement of the COM down the fall line, not vertically or laterally

(DM,E,B): Skate without allowing the skis to leave the snow: This is the exact movement you need as you move directionally down the hill. As you gain speed, you cannot help but move into short radius dynamic turns.

- Movements are forward and across the skis, not vertically or purely laterally
- Perform this on a very shallow pitch

(DM,E,B): Skate to Shape to Short to Schmear: On a blue terrain pitch start by skating down the fall line, as you develop speed, start adding a little shaping as you step to an edged ski, then blend it into short radius turns.

- Directional movements are necessary to the success of this task. The torso and COM are moving slightly ahead of the feet.
- For the shaping phase of this drill, hold onto the edge a bit longer to begin to shape an arc. As you start shaping the turns, diagonal directional movements do not change, but are maintain right through into the transition of short radius turns. Lower you COM so as to allow for greater movement in the legs.
- Movements of the COM are diagonally, with movement of the COM down the fall line, not vertically or laterally
- Add a final step which causes deceleration, and a different skill blending, from a short radius carved turn, reduce the edge angles used and smear your turns

(DM,E, PM): Shadow Skiing: Pair up skiers, the first starts down the hill making medium radius turns, after the first skier has made 4 turns, the paired skier starts to ski the same path, but modifies skill blend enough to stay outside the turn path made by the first skier, yet maintains the same distance between both skiers.

- This is a modification on synchro skiing
- Skier that follows must figure out how to change the skill blend enough to complete the task, using Edging movements, directional and pressure control movements

(DM,B,E,PM): Empty your Boots: At turn completion, you are flexed and driving your knees forward and

into the hill to shape the finish of your turn. As you extend, move directionally at turn initiation think of tipping water out of both boot cuffs above the fall line, so that the water will run out of your boots and down the hill.

- Tip both feet, legs and skis simultaneously, **above** the fall line
- Simultaneous edge engagement above the fall line allows for shaping of the turn and speed control throughout the turn, not just at turn completion.
- To help with consistency of movements, think of refilling at turn completion
- Empty to enter, refill to finish

(DM,B,E,PM): Single Toe to Toe Drill: While traversing across the hill on a shallow pitch, take the uphill foot and tip the ski from the big toe side to the little toe side, repeat in both directions. This is the movement needed to start the new turn, by tipping the new inside ski to the little toe side. When performing this drill, the weight is on the downhill ski, the uphill ski is exploring the big toe little toe sides.

- Ramp it up, by standing now on the uphill ski and move the downhill ski from big toe to little toe side. Tipping to the little toe side, is the movement used to start your new turn!

(DM,B,E,PM): White Pass Turns: Your turn initiation is accomplished by moving directionally to the little toe side of the new inside ski. At initiation as your new inside ski edges, lift the outside ski off the snow. As the turn progresses and you begin flexing through the belly and finish of the turn, you outside ski will again regain contact with the snow for you to complete the turn. Then again, using a directional movement toward the apex of the new turn, you tip to new inside ski to the little toe side, simultaneously lifting the outside ski. As you flex through the turn, that outside ski will again regain contact with the snow.

- Remember that the outside ski regains contact with the snow through a flexing movement, not an active dropping of the ski back to the snow surface.

(DM,B,E,PM) ; Schlopy Turns: Ski a long radius turn, at turn initiation, drive the new inside arm in the direction of the new turn, the outside hand sits at the waist where it is pinched between the hip and the rib cage.

- This allows for a stacked balanced position through the turn
- Encourages directional movement of the new inside half into the turn
- Keeps body balanced through turn completion
- Inside torso elongates, outside torso pinches to maintain dynamic balance

(DM, B, E, PM) :Thigh Hug: At turn completion, flex joints so that you can take your inside arm, up to the elbow, wrap it around the inside thigh

- This allows for active steering of the inside ski through turn completion
  At Turn initiation, take the outside arm and hook it around your outside leg to start the turn
- This movement draws your new inside leg and inside half into the turn at initiation

(E,B,PM,DM): Wedge Javelin Turns: Start in a wedge position down the hill, lift up the inside ski, keeping the ski tip, tipped slightly toward the snow, hold the ski over the outside wedge ski.

- This requires strong balanced stance. It also keeps the hips open and facing the direction of travel.
- This reinforces where the COM and hips should be when placing both skis on the snow

(E,B,PM,DM): Javelin Turns: Start a long or medium radius turn on your new outside ski, pick the inside ski up off the ground, hold the tip over the outside ski, and tip that ski to the little toe side.

- This maintains an open position of the hips, and keeps the legs line up in balanced stacked position when again placed in the snow.
- Repeat both directions

(DM/E/B/PM): Javelin Side Slip: Start a side slip down the fall line, pick up the uphill ski, rotate your leg in the hip socket, such that the tip of the off snow ski is held over the downhill ski, with the tip heading straight down the fall line, in the direction of travel
- This movement keeps the hips open down the hill

(DM,B,R,PM) Pivot Slips: Legs are pivoted simultaneously so the skis move perpendicular to the 'fall line'. Adjust the edge angle in the snow so COM is centered over the ski, slide is directly down the hill in a corridor. Hands and poles are lined up one at the ski tips, one at the tails.
- Stand with both skis across the fall line, now move your upper body in the direction of your downhill slide. As you do so, to keep balanced, your legs will develop a 'lead change'. This allows you to keep centered over your base of support and slide downhill in a corridor
- Upper lower body separation occurs at the hip socket. If there is any drift forward, ankles may be too flexed or closed, if there is drift aft, ankles may be to extended or open. Directional movements allow for the inside ski to move first.
- Simultaneous and accurate steering allows development of upper lower body separation, providing greater range of motion in the hip socket for edging on the ice

(M,PM): Don't let it come off the snow. At turn initiation contract new inside leg muscles attempting to pull the ski of the snow, but do not allow it to. This shortens the leg and moves you across the ski in the direction of the new turn
- Contract leg muscles such that the thigh is compressed toward the hip socket

(B,R,PM,DM): Retraction turns: Keeping your head the same distance from the slope, allow your skis to lighten and cross under your COM as you transition from turn to turn.
- Flexion and extension movements are used to maintain lateral balance over both feet. Your flexion movements allow the skis to lighten and raise to the surface of the powder so that you can more easily tip them to the new set of edges.
- Do not pivot, slice through the snow, keep your tips moving through the turn, by driving your legs actively through a turn
- Do not allow the ski to go sideways or flat, early edge, slice through the snow
- Speed control is through carved shaping not skidding

(B,DM,PM): Dolphin Turns: Your ski tips simulate the movement of dolphins coming out of the water briefly, before diving back under water. As you flex your ankles, using a retraction type movement, your skis lighten and rise to the surface of the snow, so that you can redirect them and complete your turns. As you extend your ankles, the skis will then re-enter the snow for turn completion. This simulates the movement of the dolphins coming out and back into the water.
- Great visualization drill when skiing bumps or in crud, when retraction turns help to move the skis out of the heavy snow. This also helps develop fore/aft balance adjustments.

(DM,B,R,PM) Power Carve: Carves turns maintaining a strong and dynamic movement, driving your torso and inside half in the direction of your new turn, while maintain a strong boot cuff contact.
- Lower leg to boot cuff contact is at the 2 and 10 o'clock position at the top of your boot, thus creating a directional drive along the length of your turning skis

(DM,B,R,PM) Punch a hole!: Think about punching a hole in crud and clumps of snow with the tips of your skis, and ski your boots through the hole!

- Be very two footed, active with both feet and legs
- Move the way you need to move to engage both tips early in the turn and drive the engaged tips through turn completion

(DM,B,R,PM) Use The Side Door Drill: When skiing a mogul field, picture a bump from the top of a run, the side you are looking directly at, like a front door, each side of the bump, has a side door, and at the bottom of the bump, you have a back door. When you are skiing a bump run, never enter through the front door, but use the side door, and make your direction change on the top of the bump, and exit using the back door. Never go in the front door, always go in the side and out the back!

- Using this focus helps your turn in the soft snow and ski across any ruts
- Remember stay in the middle of the ski and tip the new inside ski toward the little toe side to start every turn.

(DM,B,R,PM) Drive a Stick: You have a sports car with a stick shift on the floor. Imagine that you are driving, shifting gears from second to third, which requires a forward movement of your hand and arm. As you drive your body also moves directionally to keep your COM over your skis.

- As you 'plant your pole and ski by it, make sure you keep a driving movement as if you are shifting your car
- The image is reversed for your left turns

(DM,B,R,PM) Frog flickin': Your ski pole grips have flashlights on the end of them. As you ski down a bump field, the frogs love to hide on the downhill side of the bumps. You pole touch, pretending to stick a frog, as you ski past your pole, you lift the pole and flick the imaginary frog into a basket you have on your back. When you flick the frog, your pole grip/flashlight end is heading down the hill to see another frog. Continue down the hill flick the frogs below each bump.

- Arms are stable during your pole swing and touch, the movement of the hands is from the wrist

(DM,E,PM,B): No Vertical Static Drill: Split in groups of 3, hopefully, bigger than you are. Have the smallest stand between the other 2. Have the middle person get in a balanced position, then actually lean against the shoulder of one of the others. The person being leaned on, then gently pushes the middle person toward the shoulder of the other person. This shows that to move from edge to edge, you do not need a vertical move, movements are smooth and across the skis.

- Hold a ski pole at the middle person's hips and watch that there is not a vertical motion
- This shows and develops long leg/short leg

(DM): Ski Pole Wrap: Place your hooked ski poles at the level of the pelvis, hooking the straps to the baskets, so they stay in place as you ski. Ski short and medium radius turns and watch where the direction of the pole ends head. They should be toward the direction of travel.

- This drill helps show the direction the pelvis is moving
- It identifies where upper and lower body separation occurs

(DM): Candles in the wind: Hold your poles by the grips, but the tips are heading straight up into the air.

Make your pole touch as you ordinarily would. If your poles are a true south north swing, you are OK, but if you tend to wound house them, or cross the body with them, you will hit yourself in the head with the poles.

(DM): Single pole touch: While skiing down the hill, focus on making a single pole touch. Practice accurate timing and movement. This allows you to put this into muscle memory before confusing things with the second pole touch.

(DM): Tush Push: What our goal is in directional movement is to take our hip, and move it directionally across the ski toward the apex of the upcoming turn. Think of taking you hand and placing on your butt at turn completion. As you begin your turn moving your COM in the direction of the apex of the new turn, take you hand and literally push your tush where you want to go.

- Making a left turn, take your right hand and place it on your right butt cheek and move your COM toward the apex of your left turn
- Making a right turn, take your left hand and place it on your left butt cheek and move your COM toward the apex of your right turn.
- (This drill has also been named by PSIA as the 'Ass Grab')

Upper Lower Body Separation

In skiing we make statements of 'working on upper lower body separation', 'the legs turning under a stable core', 'the legs turn more than the body does in your turns'. 'We also ski in and out of counter'. We have to understand that as with dynamic balance, since we are always moving down the hill, we actively have to make adjustments with our movements which allows our COM to remain over our base of support, and part of this active movement is upper lower body separation, just as are diagonal directional movements. This 'separation' occurs at the hip socket, not the waist, rib cage or arm pits. When the 'separation' occurs above our hip sockets, our COM, follows the skis through the turn, this changes the ski's edge angle in the snow and how the ski reacts on the snow surface.

(B,DM): Take a Seat: Take your skis off and sit on the ground. Now bend your knees so that your heels are in the snow. When standing, this would be a comfortable flexed position. Now tip both feet back and forth but do not allow your hips to move off the snow.

- **Do not allow the butt cheeks to move off the snow**, or 'separation' will occur higher than you hip
- Internal rotation of the leg, which is when you rotate the leg in the hip socket toward the big toe side of the foot is about 35 degrees
- External rotation of the leg, which is when you rotate the leg in the hip socket toward the little toe side of the foot is about 45 degrees

(B,DM): Homework, static practice: While at home, take 2 straight back chairs that will be able to support

your body weight. Place the chairs back to back with enough room for you to stand in between them. Place one hand on the back of each chair, lift you weight so that your feet are off the ground. Now rotate your legs in the hip sockets to the right and left. Do not allow the hip to come around, this movement is achieved only through rotation of the femur in the hip joint.

- This static practice at home, allows for you to feel the movement and well as possibly increase the range of motion of the hip socket
- You may feel the stretching of the muscles on the outside of the leg with external rotation (piriformis, quadratus femoris), and the muscles on the inside of the leg (sartorius) with internal rotation of the legs.

(B,E,R,DM): Do the Twist: This is a static drill out of your skis. Pick a partner, stand face to face. Hold hands out as if you were punching your partner with both hands. Now, with the legs do the 'twist', first moving to the right, then to the left and back again. Your hips/pelvis should remain facing your partner as your legs during independently under your stable core.

- Stabilize your body further by holding your fists together with your partner
- Concentration on your pelvises facing each other throughout this drill
- Great drill for upper lower body separation in the bumps and short radius turn

(E,B,PM,DM): Javelin Turns: Start a long or medium radius turn on your new outside ski, pick the inside ski up off the ground, hold the tip over the outside ski, and tip that ski to the little toe side.

- This maintains an open position of the hips, and keeps the legs line up in balanced stacked position when again placed in the snow.
- Repeat both directions

(E,B,PM,DM): Dynamic Wedge Turns with a Pole Touch: Ski short radius wedge turns down the fall Line, with pole touch.

- Actively engages the new edges above the fall line
- Progressively lose the wedge, making short radius turns

(E,B,PM,DM): Javelin side slip: Start by standing on both skis across the hill. When you are ready to side

- slip, move your upper body so it is facing down the fall line. With this movement the uphill ski will slide slightly forward and the downhill ski, slightly back. This creates a staggered position of the feet and legs. With a slight extension of the ankles and a movement of the center of mass down the hill over the downhill ski, the edges will release and your side slip will begin. Once moving lift the uphill ski off the snow and rotate the leg in the hip socket so that the tip is heading in directly down the hill. Continue the sideslip on the downhill leg, with the uphill leg and ski off the snow and heading down the fall line. Repeat in both directions
- Upper low body separation occurs at the hip socket
- The tip of the ski that is facing downhill and crosses over the downhill ski should be lined up with the pitch of the hill

(B,E,PM,DM): Kayak Drill: Take your ski poles and hold them grip to grip, as you would hold a kayak paddle. As you start to turn down the hill, use you poles as a paddle, dipping your left pole to the snow to begin you left turn, and your right pole for your right turn. You do not necessarily have to touch your pole to the snow, but if you do, it creates even greater edge angles.

- Paddling movement of the upper body allows you create edges angles in the snow
- Creates a pinching of the downhill hip to rib cage, and an elongation of the uphill hip to rib cage space.
- Creates lateral balance
- This paddling also forces the upper body to be heading down the hill in direction of travel, thus creating and upper lower body separation

(B,E,PM): Ski without a lead change: Because we are on the side of a hill, the uphill leg will always be shorter. To ski this comfortably, the uphill ski is ahead of the downhill ski. Try to ski without that 'lead change'.

- Increases active movements of the inside ski
- Creates greater edge angles
- 'No lead change' does not occur, but allows you to remain very active with both skis
- Reduces sequential movements

(B,E,PM,DM): Telemark Turns with Downhill skis

- Think of telemark turns to start your new turns. Tip new inside foot toward little toe side as if telemarking
- Must actively flex the new inside ankle

Mileage
Level 1-3

Follow the Leader: Pick a leader to start the group down the hill, pick a designated point where you meet and switch the leaders. Make sure the leader mixes up turn shapes.

Pain in the 'S' wedge turns: Ski short radius wedge turns on a long radius turn path.

- This drill makes a 'steep' pitch seem not as steep. Make sure both turns are equal as possible, it is obvious that the turn made toward the uphill side may be a bit more difficult because gravity is not helping. This also allows you better to maneuver around obstacles and helps with fear issues.

Shadow Dance: At the time of day when the sun is directly behind you, have your guest ski while paying attention to their shadows.

- Focus points are that the body does not tip or lean from side to side, but remains straight, hands should be in view, and you should be able to see light between the legs, all the way up!

Chair Lift Slalom: Use the shadows of the up moving chairs as slalom gates, around the shadows.

Funnel Skiing: give your guests a focus of skiing like the shape of a funnel. Start with long radius turns and with each turn, they become shorter and shorter in radius, until you end with short radius turns. No turn turns in this drill are the same length. To make it easier, have participants count. 1-10, 1-9, 1-8, 1-7 etc with each turn.

Ski an Hour Glass: Ski down the hill with the focus that the first turns will be long, and progressively get shorter, then lengthen again. Give the task that they have to have completed the hour glass shape traveling the distance between 3 lift towers.

Mogul Hunt: ski down a slope appropriate for the skill level, looking for moguls, rolls, and even little

jumps.
- This builds versatility, develops balance

Me and My Shadow: Everyone in the group picks a partner to ski with. With this team of 2, the first person will ski down to a predetermined spot, the follower has to ski exactly how the first person does, turn how they turn, turn in their tracks
- Now switch leader and follower, everyone gets to be a 'Shadow"

Animal Chase: Great for kids! Everyone pick an animal they want to be. There are certain animals that love to chase others, like dogs chasing cats. The task is not to have the animals catch their 'prey'.

Ski Fruit Shapes (Ski a Fruit Salad): Use this guided discovery to see what happens to the shapes of your turns when you ski. Different fruit shapes. Ski the shape of a banana, a half of an orange, a slice of melon, half of an apple, grapes!
- Great drill for kids, discuss what happens to their speed as they change shapes

Mileage
Level 4-6

Development of solid fundamental skills is important. Mix it up by skiing faster, skiing more turns, skiing diagonally across and down the hill, before moving to steeper and more challenging terrain.

Pain in the 'S' turns: Ski short radius turns on a long radius turn path.
- This drill makes a steep pitch seem not as steep. Make sure both turns are equal as possible, it is obvious that the turn made toward the uphill side may be a bit more difficult because gravity is not helping. This also allows you better to maneuver around obstacles and helps with fear issues.
- The turn toward uphill is suing more edging, the turn downhill uses more rotary

Shadow Dance: At the time of day when the sun is directly behind you, have your guest ski while paying attention to their shadows.
- Focus points are that the body does not tip or lean from side to side, but remains straight, hands should be in view, and you should be able to see light between the legs, all the way up!

Chair Lift Slalom: Use the shadows of the up moving chairs as slalom gates, around the shadows.

Funnel Skiing: Give your guests a focus of skiing like the shape of a funnel. Start with long radius turns and with each turn, they become shorter and shorter in radius, until you end with short radius turns. The easiest way to achieve this is to pick a focus down the hill, making sure that it falls in the middle of your long radius turn, that is the transition of your long radius turn. Another aid is to count your turns from transition and make sure that transition to transition is never counted out to the same number.

Ski an Hour Glass: Ski down the hill with the focus that the first turns will be long, and progressively get shorter, then lengthen again. Give the task that they have to have completed the hour glass shape traveling the distance between 3 lift towers.

Ski a Diamond: This is a variation on the funnel and hour glass. Start with short radius turns, go longer longer, until you reach a desired length, then again start to shorten the radius so that you again finish in short radius turns.

Lane changes: Ski a single medium radius turn, then four short radius turns, follow again by a single medium and four shorts. Continue down the hill.

- Your 4 short turns should line up down the hill
- Speed control with your medium radius turn is through shaping, not slamming on the brakes during your first short turn

Mogul Hunt: ski down a slope appropriate for the skill level, looking for moguls, rolls, and even little jumps.

- This builds versatility, develops balance

Synchronized Skiing: Depending on the number in your group, ski in a line or formation. If your group is larger, form two lines with enough space in between, do short radius synchronized turns

- To aid in the uniformity start the progression in a gliding wedge down the hill so that all are moving, start to turn after a glide count of 3. 1,2,3, Turn!
- Set up a cadence for subsequent turns, turn, turn, turn, once a second, or turn 2,3, turn 2,3 etc.

Synchronized Lane Changes: Split your group into 2, even groupings if possible. Each group will perform lane changes using 4 short turns and a single medium turn followed again by 4 shorts. Start your synchro ski with a gliding wedge until all are moving, then start your 4 shorts, making sure your first turns head toward the other line, the fifth turn will be a medium radius turn at which point the right line skiers will cross over to the left and the left line skiers will cross to the right for completion of the medium radius turn.

- Make sure there is enough room between each skier in line to cross over
- Pre-determine which skiers will pass above the other when performing your medium radius turns
- Make sure your short turns are indeed short and completed for speed control
- Cadence for the shorts should be a turn approximately each 2 seconds

Synchronized Leap Frog: Skiing short radius turns, the first person in line pulls out, changes their skill blend to slow down their speed, while still in timing with the rest of the group. When the last person passes them, they pull back into line. Repeat through the entire line.

- Reverse the drill, but having the last person in line, pull out, change the skill blend, speeding up, so they catch up and pull into the first position in line.
- Make sure that the short radius turns are rounded and complete
- Keep the cadence of 1 turn every 1 or 2 seconds depending on the skill of the group

Single Footed Skiing: With both skis on your feet, select a leg and ski 99% weight on that leg, 1% on the other. Make a variety of turn shapes with that leg in both directions. Now, pick up the 1% ski and repeat turns to both sides

- Speed in helpful
- Repeat with both legs
- If tipping or banking occurs, repeat the 99/1 drill

Shadow Rail Road Tracks: Pick a partner, the first will start RR track turns, the follower is to stay in exactly the same track without any skidding put into the track.

Ski Different shapes: Using images we are familiar with, ski different shapes. Ask the questions what did you do to make each shape happen? What happened to speed control? What happened to the rhythm of the turns? How did your skill blend change? Have fun experimenting

- Ski 'Z's
- Ski the shape of a rain drop (elongated circle, with a point at the upper end)
- Ski the shape of a round dinner plate
- Ski the shape of gummy worm candy then ribbon candy

Figure of eights: Ski in pairs, start with a corridor between each skier, have them do medium radius turns cross each other's track as they go down the hill. The crossing creates figure of '8's

Ski in Pairs: The first skier makes medium radius turns, the second skier about 15 feet behind is to make Short radius turns. The skiers must stay the same distance apart from each other as they complete the task.
- The drill is to change skill blend to achieve the task

Ski different Animals: Some animals chase each other. Make an adventure of this for your kids

Dragon Tales: Have a group of your kids take a part of a dragon they want to ski, someone is the head, the neck, the body and a long tale. Weave your way down the hill, allowing each child to take turns with each part.

Mileage
Level 7-9

Lane changes: Ski a single medium radius turn, then four short radius turns, follow again by a single medium and four shorts. Continue down the hill.
- Your 4 short turns should line up down the hill
- Speed control with your medium radius turn is through shaping, not slamming on the brakes during your first short turn
- Repeat this drill using **Single ski,** and repeat to both sides

Chair Chase challenge: Using the shadows of the down moving chairs, ski short radius turns to the cadence of a turn each second. When you reach a chair shadow, stall on that shadow for 3 seconds, still maintaining the same turn per second cadence. Then continue down the hill, until you reach the next chair shadow.
- The Challenge is to maintain the same rhythm and cadence, but modify the skill blend so as to move very little when you reach a shadow, yet change the blend when you continue down the hill to reach the next shadow.

Corduroy and Crud: Ski one turn in the groomed, and one turn in the Crud, or the Bumps.

The Long and the Short of it: Ski 4 long radius turns, immediately followed by 4 short radius turns
- Speed control is through the shaping of the long turns, so there is no slamming on the brakes when you start your shorts
- Cross hill drill, be mindful of traffic

Single Footed Skiing: With both skis on your feet, select a leg and ski 99% weight on that leg, 1% on the other. Make a variety of turn shapes with that leg in both directions. Now, pick up the 1% ski and repeat turns to both sides
- Speed in helpful
- Repeat with both legs

- If tipping or banking occurs, repeat the 99/1 drill

Pain in the 'S' turns, Single ski: Ski short radius turns on a long radius turn path.

- This drill makes a steep pitch seem not as steep. Make sure both turns are equal as possible, it is obvious that the turn made toward the uphill side may be a bit more difficult because gravity is not helping. This also allows you better to maneuver around obstacles and helps with fear issues.
- Drill is ramped up when you only use a single ski to complete the maneuver

Synchronized Lane Changes: Split your group into 2, even groupings if possible. Each group will perform lane changes using 4 short turns and a single medium turn followed again by 4 shorts. Start your synchro ski with a gliding wedge until all are moving, then start your 4 shorts, making sure your first turns head toward the other line, the fifth turn will be a medium radius turn at which point the right line skiers will cross over to the left and the left line skiers will cross to the right for completion of the medium radius turn.

- Make sure there is enough room between each skier in line to cross over
- Pre-determine which skiers will pass above the other when performing your medium radius turns
- Make sure your short turns are indeed short and completed for speed control
- Cadence for the shorts should be a turn approximately each 2 seconds

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Ski a Diamond: This is a variation on the funnel and hour glass. Start with short radius turns, go longer longer, until you reach a desired length, then again start to shorten the radius so that you again finish in short radius turns.

Figure of Eights: Pick a partner. Have each person do medium radius turns down the hill. The first skier Will start and the partner will make tracks in the snow crossing over the path of the first skier, forming '8' in the snow.

Ski in Pairs: Have the first skier make medium radius turns down the hill, the second skier starting at the same time will make short radius turns down the hill.

- The distance between the 2 skiers remains the same
- The short radius ski9er does not pass the front skier
- This requires a different blending of skills.

PEARLS

Soft and supple, strong and stable to keep the skis on the snow. IN variable conditions and terrain, you need to blend strength and suppleness to maintain contact with the snow to achieve a clean smooth arc.

Stability allows flexibility. Stabilizing the upper body (Core), allow for efficient movement of the legs and joints.

What the hands do to the shoulder matters more than what the hands are doing

Ski fall line to fall line turns, not the start of the turn to the finish of the turn

If you ski 20' across the hill, ski 20' down the fall line

When you have skied the entire day and are getting fatigued, ski for accuracy, not intensity

Outside ski is the Braun(Husband), Inside ski is the Brain(Wife)

If the brain says WOOOO, the butt goes LOW! Resist this movement!

Stubborn Habits:

Getting rid of a stem:

- Traverse on the uphill edge of the uphill ski, move the COM forward and toward the little toe side of the uphill foot. Adjust your movements to see where you need to stand to maintain the edge glide. Now lift the downhill ski off the snow and tip the ski in the direction you want to go. This directional movement will cause an early edge change above the fall line and a clean turn entry.
- Shuffle through your turns, then shuffle once at turn entry, make sure the new inside foot shuffles forward to start the turn
- At turn initiation, slide your new inside ski forward so that the tips of the skis line up, or are even. The sliding of the new inside ski forward, allows you to transfer your weight subtly to the outside ski, and the directional movement of the COM allow the tips to engage above the fall line

Popping at turn entry, or hesitation: Ski no poles, or poles at half mast. When you do not have the poles to hinder your turn entry, it becomes seamless

Carving

A skid-less parallel turn, made with a minimum of body movements

Skills: **Balancing movements**: A wider stance facilitates the ability to tip the skis to an edge and allows for greater diagonal movement of the center of mass (COM). When moving through the turn the inside leg shortens by flexing as the outside leg lengthens through the belly of the turn. The sensation under foot is felt from the toes to the heel, with concentration of pressure on the ball to arch of the foot, allowing the ski to slice through the snow from tip to tail. With diagonal movements your weight is moved to the outside ski. Lateral movements are accompanied by the leveling of the shoulders and hips. This creates greater angles as the turn develops and allows the skier to align balance on the outside ski.

Rotary movements: Subtle simultaneous leg steering after the skis have been tipped to an edge, allows us to modify the turn shape, as well as increase our ability to change the edge angle in the snow.

Edging Movements: The simultaneous lengthening (extension) of the outside leg and shortening (flexing) of the inside leg allows the COM to move inside the turn so the skis can be tipped to new set of edges

Pressure Managing Movements: There is strength in length of the outside leg. The highest pressure is when the leg is fully extended, this power will not yield to changes in the terrain or snow conditions. Flexing of the leg allows us to modify the reaction of the skis with sudden terrain changes.

Diagonal Directional Movements: The COM moves in the direction of the new turn, crossing over the skis, moving inside the turn while aligning over the outside ski. Shoulders and hips are level allowing for angles to develop in the legs through the turn.

Drills: Although most of our customers will learn to ski using the wedge progression, we occasionally are presented with highly athletic people who come with a strong history of ice skating or hockey playing. This group already owns the skills that may be amenable to a **direct to parallel**, method of learning to ski. This technique is for a very select group utilizing our stepping stones method. See an example below:

- Side step up and down the hill
- Straight run using small steps to direct the skis to a direction change, repeat with fewer and fewer steps
- Straight run with a small hop
- Straight run tipping the skis slightly by moving the COM and legs in the direction you want to go
- Hockey stops both directions
- Parallel turns

Carving Drills:

- Traverse on 2 skis, both directions-check to see that there are 2 clean arcs in the snow
- Skate down the fall line on a gentle slope, Skate to Shape to Short
- 500 steps>Thousands steps, skating across the hill and through turns
- Crab walk
- Railroad track turns
- Dynamic Railroad track turns
- Patience turns
- Boot chase
- Uphill ski side slip-extension of the leg and movement of the COM into the new turn. Feel 10 & 2 at boot cuff
- Tip to the little toe side of new inside ski while shortening the leg, the outside leg lengthens and both sets of edges engage.
- Pull big toe side of foot to the top of the boot, tip toward little toe side. Line up arch with little toe side of foot

Show me your bottoms! Start by standing below the person and at turn completion, you should see the bottoms of their skis. Start to progressively move the tipping of the skis earlier in the turn, such that the skis are tipped to the new edges above the fall line, and you should be able to see the bottoms of the skis from a point where you are standing above the person skiing down the hill.

Short swing to short radius turns: Short swing is a pivoting movement the skis move from edge set to edge set. Short radius is a scooping at the top of the turn by engaging the new edges above the fall line, and guiding both skis through an arc.

Stomp

- Traverse on 2 sets of edges in both directions. Look at the track in the snow
- Start a traverse across the hill, lift the uphill ski off the snow, then stomp it back down on the little toe edge side. What does this movement do the traverse? What do you feel? You should feel yourself being drawn into a tighter arc. Repeat to both sides. Put the stomp into long radius turns. As you start your long radius, lift the uphill ski off the snow and actively stomp it back down on it's little toe edge. Repeat this 2 or 3 times in the course of the long radius turn. Repeat the drill holding the ski off the snow for 2 seconds, then stomp it back down. Repeat in both directions.
- Repeat the drill again, not lifting the uphill ski, but aggressively edging it while traversing. Are you still getting the same arc or a tighter one?? Split into pairs and have each discuss what they see in the others skiing in this drill. Make sure to switch.

Pole Drag: Making medium radius turns, hold both pole tips in the snow. Make sure both poles stay engaged in the snow enough that you can see the lines they create. This allows the shoulders to remain level through your turns, and creates angles as the turn develops. This drill also allows the skier to align balance over the outside ski

- Enhances upper lower body separation and the turning power of the legs
- Enhances a forward stance and Deters hinging at the waist
- Eliminates rotation of the upper body

2-4-2 Drill: Ski medium radius turns, finishing on 2 edges, as you extend in the direction of the new turn, allow the skis to glide at least one ski length on 4 edges, before tipping the new set of edges. This allows for a smooth turn entry, no quick movements.

Stop the Chatter: If you find on the hard pack when you are carving through a turn, the ski chatters as you exit the fall line, this is probably due to the fact that you have stopped moving along the length of the ski, or exceeded the ability of the ski to hold an arc. Fix this chatter, by actively driving your inside half along the length of the ski. This helps drive through the bottom of the turn, flexing the ankle, reducing the pressure on the ski edge. Start the turn standing on the ball to arc, and end on the arc heel. This allows for adjusting the pressures along the ski. Feather it, fine tune it.

POWDER

Definition: Fluff, champagne, 'POWDA'

Straight Run: Balanced, solid stance, narrow stance slightly. Maintain boot cuff contact, this minimizes fore/aft changes in balance caused by varying levels of snow

- Flexion and extension of the legs is simultaneous so as to use your skis more as a single platform
- Maintain forward and lateral contact with your boot cuffs so as to maintain balance, fore/aft and lateral
- Try to maintain a 50/50 balanced stance, equal weight on both feet/skis
- Simultaneous leg steering helps shape the turn
- Rhythmic pole action is used to assist movement into the turn and down the hill
- Keep tension in your ankle, it allows for powering through powder and ultimately crud as the powder is skied

Retraction turns: Keeping your head the same distance from the slope, allow your skis to lighten and cross under your COM as you transition from turn to turn.

- Flexion and extension movements are used to maintain lateral balance over both feet. Your flexion movements allow the skis to lighten and raise to the surface of the powder so that you can more easily tip them to the new set of edges.

Powder Progression: Start on an easy slope with a straight run down the fall line, Add a **Progressive Bounce**:

- Start with an even flexing and extending movement of both legs, this allows for lightening of the skis when you do add your tipping motion of the skis. Now add your simultaneous tipping as you lighten your skis in extension, flex to complete your turns. Depending on the depth of the powder, do not allow the skis to come fully across the 'fall line' to a position perpendicular to the fall line, unless you plan to stop, this keeps your momentum down the hill in deep powder.
- Work on parallel turns in the fall line

Pole Walk: You need a functional consistent pole plant. Walk your poles down the hill to keep you flowing down the hill and your keep momentum

- Keep the zipper of your jacket facing down the hill, allowing your legs to turn under your COM
- Tip both skis at the same time. Edging should be smooth, definitive, and continuous, not hard or sudden
- Drive knees and thighs in the direction of travel

Ski the Fall Line: Depending of the depth of the powder, do not let skis go perpendicular to the fall line, you need momentum

Patience Turns: Allow the skis to seek the fall line. Ski this to a 2 count, make no quick movements

Dolphin Turns: Your ski tips simulate the movement of dolphins coming out of the water briefly, before diving back under water. As you flex your ankles, using a retraction type movement, your skis lighten and rise to the surface of the snow, so that you can redirect them and complete your turns. As you extend your ankles, the skis will then re-enter the snow for turn completion. This simulates the movement of the dolphins coming out and back into the water.

- Great visualization drill when skiing bumps or in crud, when retraction turns help to move the skis out of the heavy snow. This also helps develop fore/aft balance adjustments.

Pinch and Stretch: When skiing a medium or long radius turn, to maintain a balanced stacked position, you

feel your torso on the uphill or inside part of your body elongate at the waist at the end of your turn and the outside, or downhill part of your body pinch the rib cage toward the hip bone at the waist. In a short radius turn in the fall line and in powder, as your legs turn under your center you will continue to feel that slight pinching and elongating sensation with each turn.

- A turn to the right your left side pinches, you right side elongates
- A turn to the left, your right side pinches and your left elongates

Half and Half: Ski one turn in the powder, one turn on the groomed. What adjustment do you have to Make to make smooth turns both in and out of the powder?

No Poles: ski without using poles, or grab them at mid shaft and hold them out of the snow

- This helps develop a strong core. You allow the legs to move actively under this stable core

Powder '8's: Two skiers side by side, skiing in opposite directions making figure of '8's in the snow.

CRUD

*Definition**: Mashed potatoes, frozen chicken heads, hockey pucks, what tracked powder turns to***
Stance can vary from narrow to wide depending on the conditions. If snow is clumped and dense, you may want greater tension in the ankle so you can plow through the snow. A lower position by adding additional knee flex and driving with the top of your ankle and boot cuff may smooth the ride.

Box Turns: Make the shaping of your turns more square than rounded, this allows for more time in the 'fall line' to maintain speed and balance. As you become more comfortable in these choppy conditions, smooth the corners of that box turn.

- Balance: Stance may be narrower than usual depending on the intensity of the conditions

Maintain a strong inside half, drive it through the turn (Schlopy turns). Sensation of moving inside hip 'UP' and in the direction of the new turn

- Pull toes of both feet to the top of your boot, feel the tension in your ankles, relax it by 50%, > stronger ankle. This tension in your ankle created by flexion maintains contact with the boot cuff

Retraction turns: Keeping your head the same distance from the slope, allow your skis to lighten and cross under your COM as you transition from turn to turn.

- Flexion and extension movements are used to maintain lateral balance over both feet. Your flexion movements allow the skis to lighten and raise to the surface of the powder so that you can more easily tip them to the new set of edges.
- Do not pivot, slice through the snow, keep your tips moving through the turn, by driving your legs actively through a turn
- Do not allow the ski to go sideways or flat, early edge, slice through the snow
- Speed control is through carved shaping not skidding

Tense Core Drill: Maintain tighten abdominals through the course of your turns, this allows the ankles to become more supple and adjust to the terrain and snow changes. As the snow becomes more 'cut up' you may need to add a functional tension to your ankles so that you can continue to slice the skis through the snow

- Functional tension in the core, allows a disciplined upper body, and a lower body that is athletic and able to adjust to changes in snow and terrain conditions.

Leapers: At turn initiation use an explosive extension maneuver to move your skis out of the snow so you can redirect them and complete your turn.

Dolphin (porpoising)Turns: Your ski tips simulate the movement of dolphins coming out of the water briefly, before diving back under water. As you flex your ankles, using a retraction type movement, your skis lighten and rise to the surface of the snow, so that you can redirect them and complete your turns. As you extend your ankles, the skis will then re-enter the snow for turn completion. This simulates the movement of the dolphins coming out and back into the water.
Great visualization drill when skiing bumps or in crud, when retraction turns help to move the skis out of the heavy snow. This also helps develop fore/aft balance adjustments.

Power Carve: Carves turns maintaining a strong and dynamic movement, driving your torso and inside half in the direction of your new turn, while maintain a strong boot cuff contact.

- Lower leg to boot cuff contact is at the 2 and 10 o'clock position at the top of your boot, thus creating a directional drive along the length of your turning skis

Punch a hole!: Think about punching a hole in the crud and clumps of snow with the tips of your skis, and ski your boots through the hole!

- Be very two footed, active with both feet and legs
- Move the way you need to move to engage both tips early in the turn and drive the engaged tips through turn completion

Buddy Pull/ Pole Pull: Pick a partner and stand on the side of a pitch. The upper person stands in a balanced position across the fall line, the lower person takes hold of the upper person's ski poles by the baskets. The lower person tries to pull the upper person down the hill, the upper person resists by creating a higher edge angle in the snow and creating angles with their body to remain in balance.

- Repeat the drill, by having the upper person drop their butt behind their feet. You will find the person is easily pulled off balance and down the hill
- Repeat the drill again by having the upper person push their uphill ski 6 or 8 inches ahead of the downhill ski. You will again find the person is easily pulled down the hill and loses balance.

Stem Turns: This is a confidence builder to get through Crud and develop fall line movements. At turn Initiation, step to a high edge and the ski will carve through the turn

- You want to lift the entire ski out of the snow and step on it directly under the foot when you place it back on the snow

Crab Hop: Hop from one ski edge to the other in a wedge position. Move your COM forward and inside

- Active flexion and extension is needed for this drill. Great intro to bump skiing as well as hopping skis out of the deep crud to aid direction change

Low to the Snow allows you to go: Lower your COM in Crud conditions, by flexing at the knees. This will allow you to power through the clumps of snow and reduce impact on the joints. Stand stacked, joints flexing, drive from the top of the boot cuff, the top of the ankle, the lower tibia can maintain the power to plow through the crud

- Tip boot cuff top, at turn initiation

ICE

Definition: *FEAR, Speed, loud snow, if there are no fish under it…it is NOT ice!*

- Well tuned skis, can hold on those mirrored glass surfaces
- Make no quick movements as this lightens the ski and disengages the edges
- Hip width stance allows for options for better alignment over the outside ski. Tip to the 10 and 2 position in the boots
- Engage the tips high in the turn, controlling speed throughout the turn
- Move directionally and keep up with the ski
- Progressive tipping of the skis will allow for better hold rather than any quick movements

Hockey Stops: Ski down a pitch, pivot both skis across the hill, tip both feet and knees into the hill to make an abrupt stop.

- Upper body should be facing down the hill, you should plant your pole as you tip to your edges, to stop the downhill momentum of the upper body. Balancing over the center of the ski allows for a staccato stop, with no sliding fore or aft.
- This drill allows you to test how slick the surface is.
- Make sure to maintain shoulders parallel with the pitch of the hill, thereby allowing for greater edge angles to develop throughout the turn
- Flex legs evenly into the boot cuffs

Pivot Slips: Legs are pivoted simultaneously so the skis move perpendicular to the 'fall line'. Adjust the edge angle in the snow so COM is centered over the ski, slide is directly down the hill in a corridor.

- Upper lower body separation occurs at the hip socket. If there is any drift forward, ankles may be too flexed or closed, if there is drift aft, ankles may be to extended or open. Directional movements allow for the inside ski to move first.
- Simultaneous and accurate steering allows development of upper lower body separation, providing greater range of motion in the hip socket for edging on the ice

1000 steps: On intermediate terrain, make small steps as you ski through medium radius turns. At turn initiation focus on moving the COM directionally so that the new inside ski steps into the turn first.

- Accurate fore/aft movements needed for this drill and active flexion and extension allow you to distribute pressure along the entire length of the ski, helps in managing pressure that builds throughout the turn.
- Do not exert excessive force through body movements or the result will be excessive skid ding
- This drill helps keep the COM over the skis, which aids in balancing in icy conditions
- Steer the skis like a 4 wheel drive vehicle. Well balanced, early edge, both skis, tip to tail, ski light, ski quiet
- Banking or inclination will increase you chance of skid, create angles using your ankles, knees, and hips and
  you will be able to create greater edge angles on ice, for a greater hold

White Pass Turns: Your turn initiation is accomplished by moving directionally to the little toe side of the new inside ski. At initiation as your new inside ski edges, lift the outside ski off the snow. As the turn progresses and you begin flexing through the belly and finish of the turn, you outside ski will again regain contact with the snow for you to complete the turn. Then again, using a directional movement toward the apex of the new turn, you tip to new inside ski to the little toe side, simultaneously lifting the outside ski. As you flex through the turn, that outside ski will again regain contact with the snow.

- Remember that the outside ski regains contact with the snow through a flexing movement, not an active dropping of the ski back to the snow surface.

Rail Road Track Turns: On a slight slope in a straight run start gliding down the hill. Start to tip both feet and legs in the same direction engaging the edges. The skis will start to carve the arc they were designed to, now flatten the skis and tip in the opposite direction.

- COM moves slightly in the direction your legs are tipped so that you are aligned over the outside ski

Hide the Slide: On a windblown hard pack, icy surface, you know you cannot hold an edge, so do not attempt it, but lighten the edges by opening your ankles, guide your skis sideways across the hill in a cross hill sideslip action, once in the fall line feather the edges and keep guiding the skis through the arc of the turn

- You know you are going to slide, move with the slide
- Guide the slide through rotary movements
- Hide the slide!

Dynamic Wedge Turns with a Pole Touch: Ski short radius wedge turns down the fall. Line, with pole touch.

- Actively engages the new edges above the fall line
- Progressively lose the wedge, making short radius turns
- Practice this when there is NO ice, start to engage edges above the fall line, so speed control starts early in the turn and throughout

MOGULS

Definition: Mound of snow formed by turning action. Derivation is from ***Meugaul*;** an unpleasant surprise; ***mogolungen*,** to turn upside down**; *gehmogell,*** to curse or use bad language; or ***Moogal,*** a large bruise.

- Narrow stance slightly, joints supple, legs flexing
- Zipper of your jacket remaining down the hill in the direction of travel
- Legs work under a stable core, head remains the same distance off the snow

Pivot Slips: Legs are pivoted simultaneously, skis move perpendicular to the 'fall line'. Adjust the edge angle in the snow so COM is centered over the downhill ski, slide is directly down the hill in a corridor.

- Upper lower body separation occurs at the hip socket. If there is any drift forward, ankles may be too flexed or closed, if there is drift aft, ankles may be to extended or open. Directional movements allow for the inside ski to move first.
- Simultaneous and accurate steering allows development of upper lower body separation, providing greater range of motion in the hip socket Pivot slips, inside half moves first, inside foot tips to little toe side, ankle joint opens, to start the turn

Hockey Stops: Ski down a pitch, pivot both skis across the hill, tip both feet and knees into the hill to make an abrupt stop.

- Upper body should be facing down the hill, you should plant your pole as you tip to your edges, to stop the downhill momentum of the upper body. Balancing over the center of the ski allows for a staccato stop, with no sliding fore or aft.
- This drill allows you to test how slick the surface is.
- Make sure to maintain shoulders parallel with the pitch of the hill, thereby allowing for greater edge angles to develop throughout the turn
- Flex legs evenly into the boot cuffs

Linked Hockey Stops: See above, but add a pole plant and 180 degree direction change

Short radius in a corridor: ski as if you were in a corridor with a glass ceiling

- Keep poles ahead at all times. Drive pole like a stick shift. Keep them moving down the hill
- Wedge at the top of the turn to cut off the top of the bump

Retraction turns: Keeping your head the same distance from the slope, allow your skis to lighten and cross under your COM as you transition from turn to turn.

- Flexion and extension movements are used to maintain lateral balance over both feet. Your flexion movements allow the skis to lighten and raise to the surface of the powder so that you can more easily tip them to the new set of edges.
- Flex legs on the top of the bump, and extend legs down the back side
- Do not pivot, but slice through the snow, keep your tips moving through the turn
- Do not allow the ski to go sideways or flat, early edge, slice through the turn
- Speed control is through shaping of the turn. This can be using your edges, or through skidding depending on the snow surface

Gas Pedal Turns: At turn finish, all your toes are pressed down into the boots, like you are pressing a gas pedal, this allows the ski tips to hug the snow and complete you turn with speed control

Drive a Stick: You have a sports car with a stick shift on the floor. Imagine that you are driving, shifting gears from second to third, which requires a forward and directional movement of your hand and arm. As you drive your body also moves directionally to keep your COM over your skis.

- As you 'plant your pole and ski by it, make sure you keep a driving movement as if you are shifting your car

Dolphin Turns: Your ski tips simulate the movement of dolphins coming out of the water briefly, before diving back under water. As you flex your ankles, using a retraction type movement, your skis lighten and rise to the surface of the snow, so that you can redirect them and complete your turns. As you extend your ankles, the skis will then re-enter the snow for turn completion. This simulates the movement of the dolphins coming out and back into the water.

- Great visualization drill when skiing bumps or in crud, when retraction turns help to move the skis out of the heavy snow. This also helps develop fore/aft balance adjustments.
- Your skis are the dolphins, they come out of the snow at the top of the bump, then the tips are pressed down on the backside of the bump like the nose of a dolphin

Use The Side Door Drill: Picture a bump from the top of a run, the side you are looking directly at, like a front door, each side of the bump, has a side door, and at the bottom of the bump, you have a back door. When you are skiing a bump run, never enter through the front door, but use the side door, and make your direction change on the top of the bump, and exit using the back door. Never go in the front door, always go in the side and out the back!

- This drill allows for turn shaping and speed control

Gorilla Turns: Maintaining a very low and very wide stance ski medium radius turns.

- Must have a very effective directional move in order to maintain edge angles. Also this very exaggerated stance requires active steering/guiding of both skis.

- Develops rotary skills needed in bumps, Refines steering and guiding movements needed for mogul skiing

Pole Walk: You need a functional consistent pole plant. Walk your poles down the hill to keep you flowing down the hill and your keep momentum

- Keep the zipper of your jacket facing down the hill, allowing your legs to turn under your COM
- Tip both skis simultaneously, remember to move the new inside ski to start your turn over the bump. Edging should be smooth, definitive, and continuous, not hard or sudden
- Drive knees and thighs in the direction of travel

Frog flickin': Your ski pole grips have flashlights on the end of them. As you ski down a bump field, the frogs love to hide on the downhill side of the bumps. You pole touch pretending to stick a frog, as you ski past your pole, you lift the pole and flick the imaginary frog into a basket you have on your back. When you flick the frog, your pole grip/flashlight end is heading down the hill to see another frog. Continue down the hill flick the frogs below each bump.

Falling Leaf: Improves pressure control for the bumps and uneven terrain. Standing across the hill with ankles flexed, knees up hill to create a platform. Flatten the tails of the skis by slightly tipping your knees downhill, while flexing your ankle, the skis will start to drift backward and downhill. Now move the COM slightly forward while you open your ankles which centers your balance over the ski and the backward drift stops, flatten the tips of the skis by releasing the edges, the skis then drift forward and down the hill. Repeat these movements.

- Emphasizes the importance of a centered stance & subtle pressure changes through ankle movements. Develops flexibility of the ankle joint
- Subtle steering movements and edging movements allow edge release and set
- Add a turn/direction change into the mix. After your flexing and drifting aft, open/extend the ankle joint, allowing the skis to now drift forward and move your COM in the direction of travel and a direction change