As an OET instructor, it's important to understand the maneuvers from a technical and performance level. Please use this guide to help you as you prepare for lessons. Remember, knowing this material and being able to accurately teach and demonstrate it is part of your final sign-off. For each maneuver, there are good video demonstrations found on the Ohio Region OET WebPage: <u>https://bit.ly/386bnQ4</u>.

First it's good to review the Fundamentals of Snowsports:

	Ski	Snowboard	Telemark
1	Control the relationship of the center of mass to the base of support to direct the pressure along the length of the ski (Fore-Aft Pressure)	Control the relationship of the center of mass to the base of support to direct pressure along the length of the board	Control the fore/aft relationship of the center of mass to the base of support to manage pressure along the length of the skis.
1a		Control the relationship of the center of mass to the base of support to direct pressure along the width of the board	Control the lateral the relationship of the center of mass to the base of support to manage pressure from ski to ski
2	Control pressure from ski to ski and direct pressure toward the outside ski	Control torsional flex of the board using flexion/extension and rotation of the body.	Control the size, duration, intensity, rate, and timing of the lead change to manage fore/aft stability.
3	Control edge angles through a combination of inclination and angulation	Control the board's tilt through a combination of inclination and angulation.	Control edge angles through a combination of inclination and angulation.
4	Control the skis rotation (turning, pivoting, steering) with leg rotation, separate from the upper body	Control the board's pivot through flexion/ extension and rotation of the body.	Control the turning of the skis with rotation of the feet and legs in conjunction with discipline in the upper body.
5	Regulate the magnitude of pressure created through ski/snow interaction	Control the magnitude of pressure created through the board/surface interaction	Regulate the amount of pressure created through ski/snow interaction with flexion & extension movements

Tips for your training session:

Begin your session by getting to know your students by name, ask them about their goals for the day. When teaching toboggan handling it is a good idea to go through some stretching exercises. Especially around the waist including: the lower back, abdomen, and oblique muscles. Starting in an athletic stance have them twist their upper body to the left and right, include opening the hips in the same direction to allow a greater distance of twisting. Take note of their ability to accomplish this during this warm up as a point of reference for skills you will be teaching during your session.

When a student is struggling with a skill, the trainer must formulate a "progression" which is a series of drills that will help the student experience the building blocks of that skill. This will eventually lead the student to execute that skill. The trainer must not adapt the skill to help the student reach the end goal. This generally requires the student to then unlearn something in order to execute the skill correctly. In other words, "Do not hand them a crutch, they will find one on their own."

Toboggan Maneuvers come in two types:

- * Static: A maneuver where the participant(s) is not progressing down the hill.
- * Dynamic: A maneuver done while the participant(s) is progressing down the hill.

Traverse:

A directional maneuver in which the skier or snowboarder moves across the slope, that is the skis/snowboard move perpendicular to the fall line. When teaching a traverse find a moderate slope with little traffic to avoid the public as you are crossing the hill. Remember shaped skis will naturally arc back uphill. Begin facing 20 to 30 degrees downhill hold edges so they do not slide and <u>allow the ski to arc back uphill</u>. After this becomes easy to work on steering the ski so the arc does not happen. Traversing with a toboggan should be across the hill with just enough advancement downhill to maintain speed. This is to minimize the time the toboggan is traveling across the slope.

Problems to watch for:

Uphill ski is not making a track in the snow. Tips are diverging. Skis should be almost weighted equally (still a bit more on the downhill) with both uphill edges pressed firmly into the snow.

Progression:

Begin by letting the ski follow the natural side cut, then work to steer the skis in a straighter path.

Fundamentals Reference: 1, 3, 5

<u>Sideslip:</u>

A method of moving down the hill with the skis or snowboard perpendicular to (across) the fall line. Teaching a sideslip should be done on a moderately groomed slope. Avoid a slope that is too flat where over-tipping downhill can cause the downhill edge to engage the snow. Pick a place where the fall line is evident and does not vary. Practice slideslipping faster and slower.

* Skiers: Using a hip-width stance, open the hips downhill so the pelvis/upper body face downhill. Inside (uphill) half of the body is slightly raised and forward of the outside (downhill) half. Tipping the feet and ankles uphill increases the edge angle and slows slipping; tipping feet downhill decreases the edge angle and increases the rate of slipping. Manage fore/aft balance and pressure to maintain a path down the fall line. Although both skis are weighted the downhill ski will have more weight than the uphill ski on it. Skis should remain parallel.

* **Snowboarders:** With an athletic stance, knees and ankles flexed. Allow the board to decrease the edge angle by extending the ankles while on the heel edge or flexing the ankles while on the toe edge. Increasing edge angle slows slipping while decreasing edge angle increased the rate of slipping. Manage pressure of lead and rear foot to maintain a path down the fall line.

Problems to watch for:

Patroller is not able to maintain a constant rate of slipping: Work on angulation to manage the amount of edge angle this will allow the skier to better regulate the speed of descent. Skiers are not managing foot- to-foot/lateral pressure usually applying much more pressure to the downhill ski this results in a high edge angle of the downhill ski and less on the uphill ski. Again, work on angulation to manage edge angles.

Skier is showing excessive tip lead of uphill ski. Opening the hips downhill will cause the uphill ski to come forward. A line through the ski tips should be parallel to a line drawn across the hips.

Snowboarder is heeling out and falling. This is usually caused by lack of flex in the knees. When the board slides too fast it can be a reaction for the Snowboarder to extend the knees to maintain balance. When the knees are extended fully the Snowboarder will begin to fall backward and the board tips beyond the optimal edge accelerating the slipping until the Snowboarder hits the snow. Accentuated with icy conditions. The snowboarder must use ankle flexion to increase heel edge angle while keeping the knees flexed. Ankle extension for toe edge.

Progression:

Begin on moderate slope. Work both sides/edges. Progress to a steeper slope. Practice speed control by varying the amount of edge angle. Focus on Angulation vs. Inclination

Fundamentals Reference: 1, 2, 3, 5

Falling Leaf:

A maneuver in which the skier/snowboarder sideslips forward and backward while traveling directly down the hill in an imaginary corridor. Teaching the falling leaf is best done after sideslip practice. Using the same stance and terrain as the sideslip, students can vary their descent laterally by applying pressure to the tip or tail of the ski by flexing at the ankle. More flexion brings a balanced center of mass forward skiers' weight should be felt at the front of the foot. Less flexion brings a balanced center of mass to the rear and skier's weight is felt across the whole foot. The skis can also be steered using rotary. Blending both movements, pressure and rotary give the patroller more flexibility. For a snowboard, it is pressuring the board with the lead or rear foot. This is a good way to go around objects or built up snow. After perfecting pressure movements, introduce rotary movements to enhance the fore and aft transitions. Fore and aft paths will begin to arc.

Falling Leaf: (Continued)

Problems to watch for: Never use the word 'LEAN' or ever suggest that we want the student to come out of balance to accomplish this skill. Applying forward or aft pressure is done through flexion or extension not leaning upper body.

Progression: Start from a moderate groomed terrain where the fall line does not vary. Refresh the slideslip and add pressure to alter direction while maintaining a corridor. Also have the student steer the flat ski (rotary) to achieve the same outcome. Working to blend both movement patterns is the goal. Later work into advanced terrain where the fall line varies, multiple fall lines exist, or moguls.

Fundamentals Reference: 1, 2, 3, 5

Hockey Stop:

A maneuver used to bring the toboggan to an immediate stop. From a neutral stance, the front operator simultaneously flexes the ankles, knees, and hips while pivoting both feet across the fall line as he or she applies increasing pressure and edge angle to stop the toboggan. Teaching a Power Stop should be done on a moderately groomed slope. Pick a place where the fall line is evident and does not vary. Remember, this is a 90-degree pivot, not a short radius turn. The student will maintain a straight path down the fall line throughout the maneuver. Review pivot slip mechanics. While this description includes directions for flexing both legs, the inside ski will be flexed a little more. The pivot must be quick and edge engagement firm and equal on both skis after the rotation is complete. Stance is maintained through the stop and can be held after the stop is complete.

Problems to watch for:

There are arcs at the end of the stop either fore or aft. Are the students getting their skis pivoted 90 degrees before applying the amount of edge required for stopping? Is the Center of Mass CENTERED over their Base of Support? Are they engaging the shovel of the ski as if performing a short radius turn?

Progression:

Review Side Slip and Pivot Slip (if already taught) work on moderate slope with a good straight fall line. Work to steeper terrain and varying fall lines.

Fundimentals: 1, 2, 3, 4, 5

<u>Pivot Slip:</u>

A transition maneuver in which a skier sideslips, then pivots his/her skis/board 180 degrees while on the snow, then sideslips again, all while maintaining a constant speed. <u>Pivot Slip is probably the most technical skill taught by Toboggan Instructors as it incorporates all the fundamentals of skiing/snowboarding.</u> Teaching the Pivot Slip should be done in conjunction with Side Slip and Falling Leaf, as a progression. Balance is paramount when doing pivot slips. Both skis will spin 180 degrees under a stable upper body. The pivot point is under the center of the skis. Skis are pivoted and twisted simultaneously and at a constant rate. Flexion and extension of the ankle is constant throughout the pivot, like peddling a bicycle. As your uphill ski begins the extension movements the downhill ski begins the flexion movements Flattening the ski and causing it to seek the fall line. For a snowboard, the pivot slip begins with the torsional flexing of

Pivot Slip: continued

the board. Torsional flex is created by, flexing one foot while extending the other causing the board to twist. This movement holds the edge under one foot while releasing the edge under the other foot. It is used in turn initiation, and when held for a longer duration, it will allow the border to pivot or spin. Since the pivot is under the center of the ski or board, the path should be directly down the fall line with very little drift from side to side. Both skis should remain in contact with the snow at all times throughout the maneuver.

Problems to watch for:

Skis form a wedge between sideslips. This can be because the skis are not pivoting simultaneously. If the new inside ski is flat and pivoting late then working on simultaneous pivoting will fix it. If the new inside ski is not twisting off the edge and not retracting, then there is a real wedge where skis are on opposing edges. Picking up the inside ski will be the way your students will get out of this situation. It is important for the instructor to recognize when the inside ski's edge is engaged and not just spinning late. *Excessive tip lead*, see side slip stance directions. A wedge or balance centered too far forward or back might also steer the ski more across the fall line. Remember the goal is to pivot the skis/board in the fall line.

Progression:

Start from moderate groomed terrain where the fall line does not vary. Refresh Slide slip and Falling Leaf. While doing the falling leaf get the students to make good arcing movements, then introduce a single transition when the skier is arching and traveling in reverse, as the momentum begins to stall, have them keep the rotary movement going while extending the uphill leg and flexing the downhill leg. This will allow the pivot to happen and the skier continues out of the pivot forward, in the same direction as they were in reverse. They continue doing the falling leaf with a new uphill and downhill ski. Have them work until they can transition each pass and then lessen the length of the falling leaf arc until it is gone.

Fundimentals: 1, 2, 3, 4, 5

Uphill Techniques:

Skating:

A method of propulsion in which the skier presses from foot to foot while keeping the skis in a diverging position. The inside edge of the weighted ski is engaged as the skier moves forward. In a snowboarding context, the rider moves the board forward by pushing with the free foot. When teaching skating begin on a flat slope. Separate the tips of the skis; to create a reversed wedge, this is the diverging position. Pick up one ski and take a small step forward. Place it flat on the snow as you push off and lift the other ski. Glide on the first ski while maintaining the diverged position. As your momentum stalls, step and glide on the other ski while pushing off and lifting the ski that is still on the snow. (Fundamentals 1, 2, 3, 5)

Herringbone (Hike):

A diverging ski position is useful for climbing hills. The skier faces uphill with ski tips pointing at an angle away from each other and walks up the hill on alternating feet while edging to avoid slipping backward.

When teaching the herringbone, start on a flat or moderate slope. Demonstrate by positioning the skis in a reverse wedge position. The ski tips are diverging, and the tails are a short distance apart. The skis are tipping so that the inside edges are digging into the snow. Place the poles outboard of the skis. In a simultaneous movement take a step forward with one foot and the pole from the same side. This is a hiking move with NO gliding. Repeat with the other foot and pole. Once they have this maneuver mastered move to a gentle incline, then a moderate slope. Note: on steeper terrain, the reverse wedge is widened for stability. (Fundamentals 1, 2, 3, 5)

Sidestep (Hike):

A method of moving up the hill in which the skier steps up the hill one ski at a time with the skis across the fall line. When teaching the Sidestep hike, start on a flat or moderate slope. The skis are positioned parallel to each other and perpendicular to the fall line. Balancing on the downhill ski and pole step uphill with the uphill ski while lifting the uphill pole and placing them down in a wide stance. Then balance on the uphill ski and pole while bringing the downhill ski and pole uphill and place them down in a comfortable stance. (Fundamentals 1, 2, 3, 5)