Skating Skills Terminology Resource

These are a few of the essential terms used in the teaching of skating skills.

Axis

An axis is an imaginary line utilized as a reference for consistency of pattern.

- Longitudinal (Long) Axis: A straight line dividing the ice surface into two halves down the midline.
- Continuous Axis: A line running around the ice surface and consists of two lines running parallel to the rink boards connected at each end of the ice surface by a somewhat flattened semi-circle.
- Transverse Axis: A line intersecting the continuous axis at a right angle. (i.e., any blue line in a hockey rink.)
- Short Axis: A straight line that divides the ice surface into two halves across the rink. (i.e., the middle, red line in a hockey rink.)
- Diagonal Axis: A line that divides the ice surface from one corner to the opposite corner.

Balance

While a skater is traveling forward, the balance on the blade should be middle to back of the blade. While a skater is traveling backward, the balance on the blade should be middle to front of the blade. It is important to note that the action of the foot creates the action of the blade. Balance throughout turns can be especially challenging if the skater is not aware of foot action.

For example: When performing a forward outside three-turn, the skater will initially be balanced on the middle to back of the blade. Just prior to the turn, the skater must press their foot to the front of the blade while avoiding the toe pick. The skater continues to balance on the front of the blade foot while changing the direction of travel to backward. When gliding backward, the balance on the blade is aligned with the ball of the foot. When analyzing balance during a three turn (and some others) forward turns rock to the front of the blade, and backward turns rock to the back of the blade.

Bilateral movement

This is the ability of the skater to execute movements on both sides of the body, clockwise and counterclockwise, forward, and backward.

Body Lean

Lean is the ability to align the body properly over the blade, and the body aligned properly over the blade creates maximum efficiency of flow and speed across the ice. This alignment begins

with the angle of the blade on the ice continues with the lean and balance up through the body to the head. Using a forward outside edge again as an example, the body must follow the angle of the blade. When the blade changes the edge or direction, the body must follow the blade in that direction without interrupting the flow across the ice. This requires development of core strength and skaters will become more proficient with this as they progress.

Check

A check is controlled or stopped rotation, reversing engines so to speak. After a skater has initiated rotation for a turn, there must be a counter movement of the body to that rotation to create a stable running edge after the turn.

Edges:

Basic 8 edges

Edges have multiple functions, create a curved path, and assist in a dynamic power push.

1. RFO Right Forward Outside
2. LFO Left Forward Outside
3. RFI Right Forward Inside
4. LFI Left Forward Inside
5. RBO Right Backward Outside
6. LBO Left Backward Outside
7. RBI Right Backward Inside
8. LBI Left Backward Inside

Rotation

Stroking, turns, jumps, spins are all initiated from the edge. There are other body mechanics involved in the actual execution of those skills, but the edge will always first initiate the rotation. The coordination of the body over the edge will determine the quality of the skill.

Extension-Stretch-Reach

Extension-stretch-reach is the action of free leg motion. When skaters learn to stroke, they are initially taught to "extend" the free leg. As skaters become more advanced the "extension" is then turned into a "stretch" of the free leg which results in a longer stroke. More proficient stroking results from "reach" where the free leg "reaches “and is turned out throughout the free foot and toe.

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Flow

Flow is the ability of a skater to use excellent technique in stroking to increase distance per stroke. Skaters who appear effortless and can maintain speed will travel farther per stroke. The International Skating Union (ISU) handbook defines flow as *"the ability to maintain speed and glide with effortless ease."* The Official U.S. Figure Skating Rulebook defines continuous flow as *"the skater's ability to maintain a consistent and undisturbed running edge across the ice. Flow does not necessarily relate to the speed at which the skater is traveling, as it is sometimes best recognized as the skater starts to slow."*

Friction

Friction is the resistance when two materials are in contact moving over one another. A metal skate blade moving over ice is nearly a friction-free environment. (The Coefficient of Friction for a skate blade on ice is .0046 to .0059.) A skate blade travels over molecules of water that melts and refreezes as the blade continues. The water acts as a lubricant that lowers the friction, as the blade travels across the ice. There are variables including temperature, condition of the ice, and impurities in the water used to make ice. There are special processes to remove mineral impurities to lower friction and increase the speed of the blade. Also, the depth of hollow of the blade sharpening, size of the skater, and the width of the blade are factors.

Lateral and linear movement through the ankle

Lateral movement with the foot and ankle determines the angle of blade in relationship to the ice. *Linear movement* is seen when the skating knee bends over the skating foot. The ankle joint is an especially important part of skating, and it is essential for coaches to understand the ankle joint itself and the support system around the ankle (ligaments, tendons, muscles). Of course, there are other joints involved in skating, but the ankle joint is the closest major joint in proximity to the blade. Use of the ankle should be emphasized with skaters from a very early age.

Lobe

A lobe is a pattern made on the ice by an edge or steps that form an arc that starts and finishes on an axis. The edges of turns create bilateral lobes that should be symmetrical.

Parallel

These are two lines that do not meet or intersect. Coaches often refer to turns or body positions lining up parallel to the axis (an imaginary line). When a blade is on a "flat," it leaves a mark on the ice of two parallel lines.

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Perpendicular

These are two lines that intersect each other forming 90° angles. As skaters are approaching an axis (an imaginary line), to properly transition to a new lobe or curve, they step on the new skating foot on the proper edge and perpendicular to an axis.

Posture

Posture is a complex concept that needs constant attention and development. The spine should remain in a line: the back of the head should be in alignment with the spine, the arms are in a relaxed yet firm position even with the shoulders, nose over toes and hips over heels when bending ankles and knees. The hips (pelvis) must remain stable to support correct upper body posture. Proper posture will enable the skater to use their muscles efficiently, increasing controlled movement for better balance on the blade.

Power

Power is the result of stroking with maximum speed and flow. According to the Official U.S. Figure Skating Rulebook, power is "*the creation and maintenance of speed and flow without visible effort. It is developed by a continuous rise and fall of the skating knee together with the pressure of the edge of the blade against the ice. (The skater should demonstrate the ability to exert equal pressure against the surface of the ice on both right and left foot.) End products of power are (1) velocity, speed, or pace; (2) flow across the ice; and (3) acceleration.*"

Radius of Hollow

Often referred to as the "hollow" of the blade, the ROH is the depth of the arc ground into a skate blade during a skate sharpening. The deeper the ROH is, the more stable the skate acts over ice. A deeper ROH has a better grip, but it also creates more drag (friction) and can cause difficulty turning and is slower. A shallower ROH will create less resistance. This means the blade will travel farther than a deeper ROH. The depth of "hollow" is a very individual choice, but most figure skaters choose an ROH of 5/8", 1/2", 7/16", or 3/8''.

Rhythm and Timing

Rhythm and timing help organize and coordinate the body and the blade to develop consistency in skating. Rhythm is a pattern of regular beats, and in skating, it is a recurring pattern of movements to an even tempo. Rhythm is often seen best through the ankles and knee. Good timing is a product of consistently producing good rhythm and tempo. Timing is also used in jump and spin skills and is evident when the proper sequence of motion produces the precise body mechanics for each skill.

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Speed

Speed is the distance that the body travels over time. Skaters have been measured to travel 18 to 26 miles per hour when they are using their best technique. Generally speaking, the speed of a skater increases in relation to their skating test/competition level.

Shapes/Symmetry

All edges create geometric shapes or a part of a shape. In basic figure eights (and other patterns), lobes are bilateral in nature and create symmetrical shapes.

Transfer of Weight

The transfer of weight occurs in figure skating when the skater is pushing from one foot to the other. To prevent wide stepping and inefficient weight transfer, the skater's free leg/foot must return under the body prior to the next push.

Turns and Steps

Proper body mechanics are necessary to perform a turn or a step. *Push, set, twist, turn* are four words to consider that will establish organization, rhythm, and timing for turns.

Push	A push is the correct transfer of weight (bending of the skating ankle first before push) and direction of the arc.
Set	"Freeze" for younger skaters, a set is a balanced position on the blade with complete stillness of the body and blade. The skating knee remains soft while preparing for the turn.
Twist/ Rotate	This is an action where the blade and the hips remain constant while the shoulders twist/rotate creating oppositional forces. The shoulders, and the arms are an extension of the shoulder position. As skaters get more proficient with turns, the range of motion of the twisting action should become less, and this becomes an internal movement of rotation from inside out without excessive arm movement.
Turn	The skating edge releases "pushes" from the ice and the torso reverses the original twist/rotation action, creating a checking action and stillness of the body and blade after the turn. Twist and turn cannot happen at the same time. The turn is a reaction of the twisting/rotational action prior to the turn.

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Three-Turn: (3)

A three-turn stays on one foot, stays on the same circle (curve, lobe, or arc) but changes both direction and edge. The change of edge is at the cusp (or top) of the entry edge and does not occur on the entry edge itself nor on the exit edge itself. During a three-turn, the direction of the skating blade is towards the center of the circle. Three Turns are performed on both feet from outside to inside edge and inside to outside edge, and forward to backward, and backward to forward. There are eight different three-turns.

Bracket: (Br, B or Bk)

A bracket is a turn that stays on one foot, stays on the same circle (curve, lobe, or arc) but changes both direction and edge. The change of edge is at the cusp (or top) of the entry edge and does not occur on the entry edge itself nor on the exit edge itself. Unlike a three-turn, during a bracket turn counter rotation occurs and the direction of the skating blade turns outside of the circle. Brackets are performed on both feet from outside-to-inside edge or inside-to-outside edge, and forward to backward or backward to forward. There are eight different bracket turns.

Loops: (no abbreviation)

A loop is a turn that stays on the same foot, stays on the same circle (to form a circle within a circle), stays on the same edge and travels in the same direction. When skating a loop, a teardrop-shaped print is formed within a small circle or curve. When skating figures, a loop will be approximately one blade length wide and 1 1/2 blade lengths long and the circle is close to the height of the skater in size. Loop skated in free skate blades may be slightly larger and wider especially when skated with speed and may be on a ½ circle. When entering a loop, the skater rotates the upper body like the entrance into a three turn (but does not turn). The skating blade remains in the same direction throughout the loop, but to create and maintain the exit edge, there is a counter rotation of the shoulders. Loops are performed forward or backward on inside or outside edges. There are four different types of loops.

Counter: (CTR)

A counter is a turn on one foot that stays on the same edge, changes direction AND changes circle (curve, lobe, or arc) The change of direction is at the cusp (or top) of the entry edge and should not occur on the entry edge itself nor on the exit edge itself. The counter entry resembles a bracket, and the exit resembles a three-turn. Counters are performed on both feet from outside-to-outside edge or inside-to-inside edge, and forward to backward or backward to forward. There are eight different counter turns.

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Rocker: (RK)

A rocker is a turn on one foot that stays on the same edge, changes direction AND changes circle (curve, lobe, or arc). The change of direction is at the cusp (or top) of the entry edge and should not occur on the entry edge itself nor on the exit edge itself. The rocker entry resembles a three-turn, and the exit resembles a bracket. Rockers are performed on both feet from outside-to-outside edge or inside-to-inside edge, and forward to backward or backward to forward. There are eight different rocker turns.

Twizzle: (Tw)

A twizzle is a series of traveling unchecked three-turns on one foot that are rotated with a continuous and uninterrupted action. The four different types of entry edges for twizzles are forward inside, forward outside, backward inside and backward outside. Twizzles are a turn that stays on the skating foot, has multiple changes of direction and edge and travels on a constant circle (curve, lobe, or arc). A high-quality twizzle travels one blade length or less between the cusps of the turns. It may be closer to two blade lengths at the lower levels. There are four different twizzles.

Outside and Inside C-Step (CSt) (formerly known as Mohawk (MO)

A C-Step is a step accomplished using both feet. A C-Step stays on the same circle (curve, lobe, or arc), stays on the same edge, but changes feet and direction. C-Steps can be inside to inside edges (staying to the inside of a curve (or lobe) while changing feet or outside to outside edges (staying to the outside of a curve (or lobe) while changing feet. C-Steps are performed from forward to backward or from backward to forward.

Open and Closed C-Step (OpCSt & ClCSt) (formerly known as Mohawk (OpMO; ClMO)

There is another concept to C-Curve/Mohawk that is important to note – whether it is "closed" or "open." It is the placement of the free foot in relation to the skating foot that dictates whether it is an open or closed C-Curve/Mohawk:

- In an open C-Curve/Mohawk, the heel of the free foot is placed to the instep of the skating foot, and the free foot ends up in an open position behind the skating foot.
- In a closed C-Curve/Mohawk, the free foot instep is placed behind the heel of the skating foot which in turn has the free leg in front in a closed position.

S-Step (SSt) (formerly known as Choctaw (CHO)

An S-Step is a difficult step accomplished using both feet. An S-Step changes feet, changes edges, changes direction, and changes curve (or lobe). S-Steps can be inside to outside edges or outside to inside edges, and change circles (curves, lobes, or arcs) while changing direction,

while changing feet. S-Steps are performed from forward to backward or from backward to forward.

Open and Closed S-Step (OpSSt & ClCSt) (formerly known as Choctaw (OpCH; ClCH)

Like the C-Step, an S-Step can be open or closed. The placement of the free foot in relation to the skating foot dictates whether it is an open or closed S-Step.

- In an open S-Step, the heel of the free foot is placed to the instep of the skating foot, and at the exit the free foot is back in an open position.
- In a closed S-Step, the free foot is placed behind the skating foot, and the free foot will be in front in a closed position.