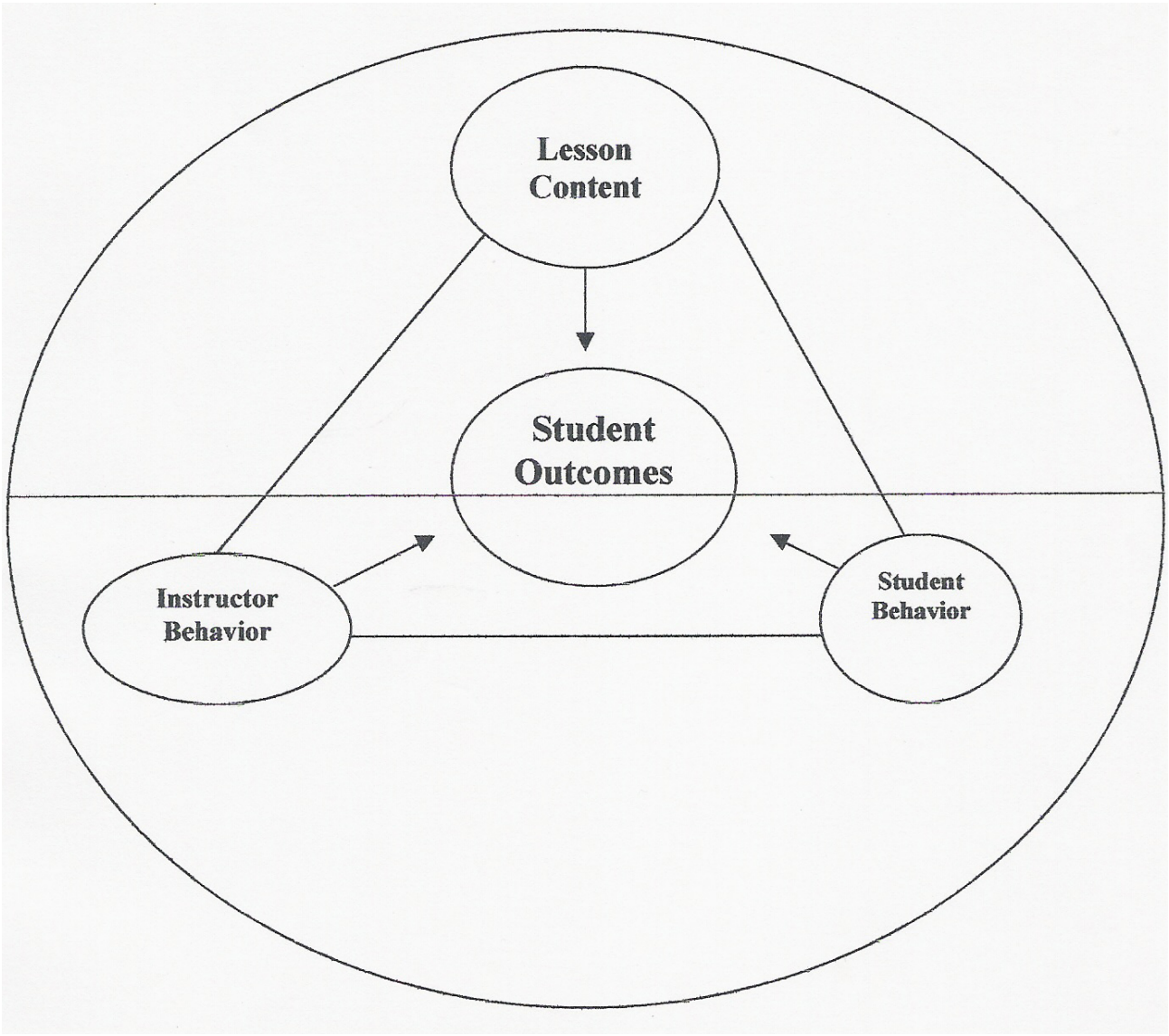
Blue Hills
Ski & Snowboard School

ITC-Instructors Training Course 2008-2009

The Skiing/Riding Model



The Teaching Model

Student Centered, Outcome Based, Experiential, Guest Service Driven

Skier Safety Code

It is our job to teach and repeatedly reinforce by demonstration, The Code:

- Each individual is responsible for his/her own safety. Ski/ride in control so that unexpected hazards, e.g., a fallen person, an exposed rock or a snow machine can be avoided.
- When overtaking another skier/rider from behind, you are responsible for that skier/rider and yourself. People ahead of you have the right of way. Anticipate sudden changes of direction or a stop and be prepared to avoid a collision.
- Stop to rest at the side of the trail or in a protected area where you are not obstructing the run. Stop where you can be seen from above, and when skiing/riding into areas where your vision is limited, be alert for potential problems.
- After a rest stop or when merging onto a new trail, be sure you look uphill to see what is coming and yield to others.. . Always use safety devices to help prevent runaway equipment. . Observe a/l posted signs and warnings. Keep off closed trails and out off closed areas. If you are an employee or a guest at another mountain this is grounds for dismissal.
- Prior to using any lift, you must have the knowledge and ability to load, ride and unload safely.

Successful Learning

WHAT MAKES A GOOD TEACHER?

> "One student I heard about said she could not describe her good teachers because they differed so greatly, one from another. But she could describe her bad teachers because they were all the same: 'Their words float somewhere in front of their faces, like the balloon speech in cartoons. '
>
> With one remarkable image she said it all. Bad teachers distance themselves from the subject they are teaching-and in the process, from their students. Good teachers join self and subject and students in the fabric of life."
>
> Parker J. Palmer - p.11, The Courage to Teach

It is all up to you to be the best teacher you can be. Game playing, exploration and having fun yourself lead to lessons that people enjoy. That alone will keep them coming back.

"A good teacher asks: “How am I doing?” A great teacher asks: “How are my students doing?" Which will you be???

Learning Styles –Before we start to teach our students new things let's look at some of the different ways people learn. Which are you? How might you teach each differently?

- **Visual** - watchers see what you mean. They use sight and visualization to store information in the brain. They relate to how it "looks" rather than how it "feels."
  Explain - Helpful to listeners
- **Auditory** - listeners want to receive step-by-step instructions.
  Demonstrate - Helpful to watchers
- **Kinesthetic**- (Do-ers) feel their way through a lesson. You can tell them, you can show them but until they get up and experiment, they have no clue what you are asking of them.
  Practice - Helpful to doers

Feedback

- Verbal
  - Instructor asks questions of the student.
  - Student asks questions of the instructor
  - Instructor offers specific advice in "sandwich" format: positive, negative, positive.

- Visual
  - Instructor watches the student (movement analysis)
  - Student watches instructor.
  - Instructor may ask student to watch different movements: student movement analysis.

Basic Steps in Learning:

- **Exposure** -Introducing the appropriate mechanics, terrain, speed and snow conditions for the level at hand. Instructors must determine what knowledge the students have and how much to give. ***Progression*** is the word we use to take a learner through a continuous journey of learning from one level to another.

- **Repetition -** This is the only way to form a habit. However, repetition of random movements, results in mastering random movements. Make sure your students are practicing correct movements based soundly on balance, posture and the skiing/riding skills you are focusing on. Presentation must stimulate and motivate so be creative in the exercises you give by making them fun and challenging.

- **Variety -** As an instructor you must learn to say it, say it again differently and summarize it (say it again) in yet another variation. Conversely, a student's boredom factor will kick in quickly, be ready to alter exercises to develop a level of comfort. Quickly moving a student to the next skill set is rarely the answer to boredom.

- **Application** - Put it to the test Let the student see how the skill you have just worked on will apply to their improved technique. . Feedback - Did you see the light go on? . It's not a race. Developing skills at the beginner level makes for a better rider down the road. Make sure that each skill is developed to a minimum level before moving on to the next.

Class Management

The slopes get very crowded, it is important to keep your class together, and close by. There's a lot going on, both in your class and all around you. Safety must always be your primary concern.

When speaking to your class it is important to make sure every student can all see your face and hear what you have to say. One would then think that the ideal way to orient the class would be like patrons in a movie theatre, but this is not the case. Instructors should make every effort to line their students up like the rungs on a ladder. The less of the slope the class takes up, the smaller the obstruction, and the safer everyone will be.

The Lesson

Introducing the Lesson

- Establish rapport between self and students, students and students
- Create an open, friendly and supportive lesson environment
- Describe the product that the student has purchased

Determining Goals

- Assess each student's level of skiing/riding ability.
- Guide the student's expectations for the lesson.
- Set appropriate goals based on student's ability and expectations.

Plan the lesson objectives and activities

- Select appropriate terrain under the current snow conditions.
- Generate logical progression relevant to group/individual goals.
- Break lesson content into short meaningful chunks that can be mastered.
- Utilize concepts of lateral learning.

Presenting Information (the how and why)

- Present information in a clear and concise manner.
- Recognize student learning styles and utilize the appropriate teaching styles.

Demonstrating

- Demonstrate in chunks; break it down to first grade level.
- Demonstrate the Centerline Model and Ski School Level.
- Demonstrate from front, side and back to give student a meaningful picture.
- Demonstrate mechanics appropriate for the snow conditions and skill level.
- Demonstrate the appropriate mix of skills (pressure, edging, turning, and balance) for the selected task.

Practicing

- Offer an array of practice exercises appropriate for the level.
- Provide specific and immediate feedback to students.
- Reinforce

Summarize the lesson

- Review the lesson objectives.
- Provide feedback and encouragement.
- Preview the next learning steps.

Understanding

- Verify student understanding based on physical behavior If misunderstood, more often than not folks will seem to agree while not getting the point. If people do not understand or relate to us, we are unable to influence their decision to benefit from our product, service or opportunity.

Communication consists not only of sending messages, but also of receiving them.
Teachers need listening skills to not only hear but understand what is being said.
Communication consists of nonverbal messages as well as verbal messages.
Gestures of hostility, facial expressions of joy, acts of
Intimidation and behaviors of kindness are all forms of nonverbal communication.

Over 70% of communication is nonverbal

Content and Emotion:

- Content refers to the substance of the message usually expressed verbally.
- Emotion is how you feel about it usually expressed non-verbally.

Taken from Coaching Young Athletes

It's all about how you say it.

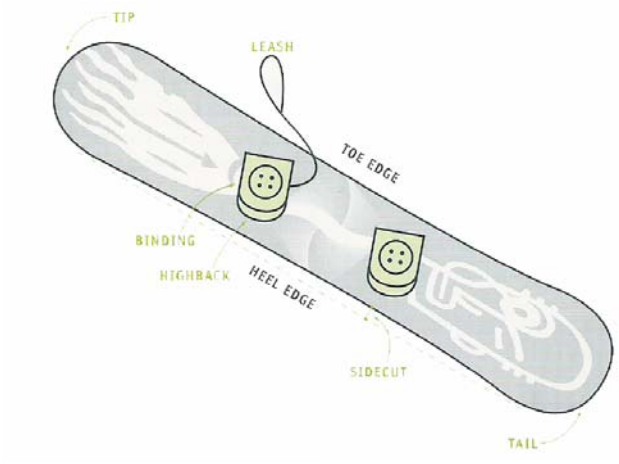
As instructors we will be in the position to teach men, women, boys, girls and even an occasional toddler. What we teach never changes. How we present it and what our level of expectations do change. With each level of instruction, make sure you practice and develop a comfort level with expressing the skills with each differing group of learners. Although it may be broken into levels, there is room to alter this depending on the learner and their potential.

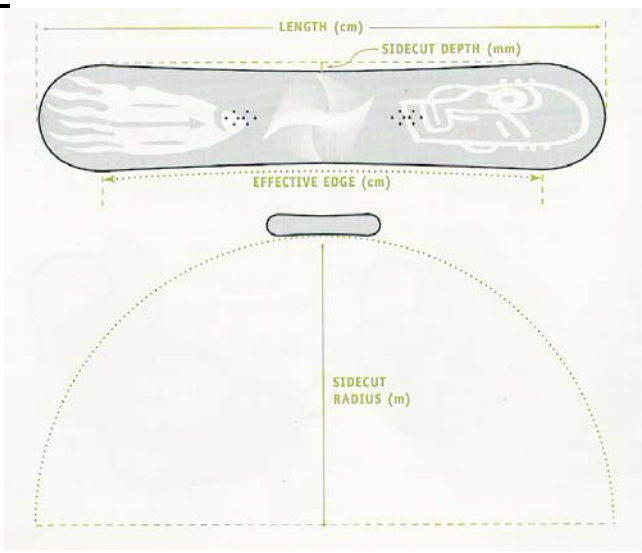
1. The bandage was wound around the wound.
2. The farm was used to produce produce.
3. The dump was so full that it had to refuse more refuse.
4. We must polish the Polish furniture.
5. He could lead if he would get the lead out.

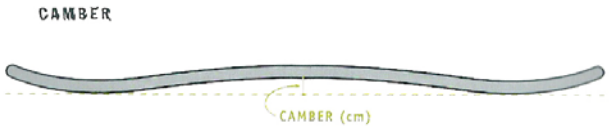
Level	AASI Level System
Level 1	"Never-Ever." New to snowboarding.
Level 2	Able to ride lifts & the bunny hill.
Level 3	Able to make turns on green terrain.
Level 4	Comfortable riding blue terrain.
Level 5	Comfortable riding on blue terrain.
Level 6	Able to handle anything the mountain can throw at them.

Level	Blue Hill Ability Level System
A **(First time)**	"Never-Ever." New to snowboarding.
B	Able to hike, strap in, & get up. Should be able to side slip on toe and heel edge, and stopping on command. (on both toe and heel edge.)
C **(Intermediate)**	Students can perform garlands & falling leaf, (On both toe and heel edge.)
D	Students are starting to explore J turns (On both toe and heel edge.)
E **(Advanced)**	Students are starting to explore skidded "C shaped turns" on toe & heal side, with a goal of linking turns by lesson's end.
F	Students are starting to experiment with varying turn; size, shape, & frequency

Introduction to the tools of the trade:







Parts of the Snowboard:

Base – The bottom of the board which passes over the snow.
Deck - The surface of the board which faces the sky, on top of which sit the bindings (& the rider).
Edge (Toe vs. Heal) – The edges are what sets into the snow and provide control over the board.
Side cut - The component of shape of a snowboard in which the middle is narrower than the tip and tail.
Effective edge - The portion of the edge that has contact with the snow.
Camber - The bridge-like arc seen when a snowboard is placed base down on a flat surface; spreads the rider's weight evenly along the length of the deck.
Tip - The front of the snowboard, which typically leads the way.
Tail - The back of the snowboard, which typically follows the tip.
Bindings – Connect the rider's feet to the snowboard.
Highback – The portion of the binding which goes behind the heal supporting the back of the foot & lower calf.
Ankle strap - The portion of the binding which goes over the rider's ankle.
Toe strap - The portion of the binding which goes over the rider's toe.
Stomp pad – An adhesive pad stuck to the deck of the snowboard to help hold the ride's loose foot during skating.
Leash – A safety restrain device use to ensure the snowboard stays with the rider.

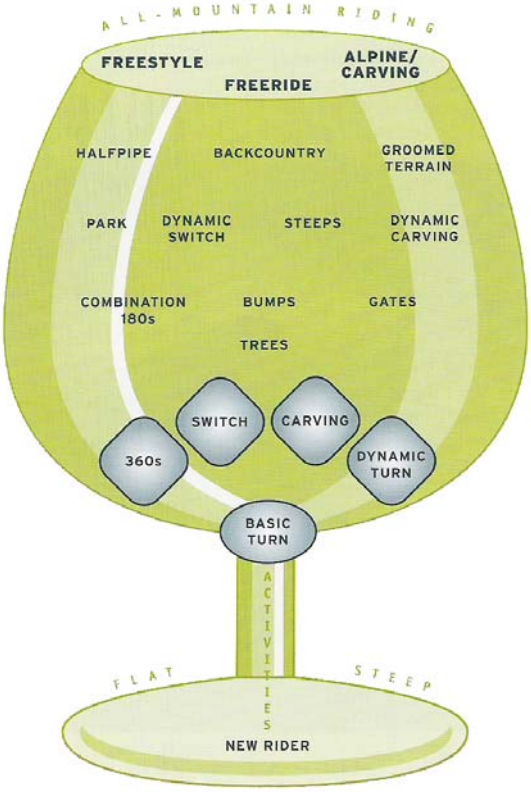
Stance:

As with any sport, having the right stance is really important. A good starting point is to ask the students about other sports they have played. Chances are they all rely on a similar **Athletic stance**. From a soccer goalie to an outfielder in a baseball game, the stances are all variations of each other.

Snowboarding Stance:

The Riding Model:

AKA: The Y Model



The bottom of the model (base of the glass) is where snowboarding evolves - the new rider, This first-time riding experience is the foundation of the rest of our snowboarding lives The base of the Y model is the foundation what we do as snowboarders. The stem represents the period learning where riders gain understanding of the movements they have to make to create the desired performance of the board. All of the common activities of a beginner lesson are contained within the stem of the glass, Once riders have successfully performed the parts of a turn, they move on to completing a basic turn. Tasks and skills learned up to that point are directed to that one goal. The outcome is a basic turn, with a number of small steps leading to it. Beyond basic skidded turns (at the top of the stem), the Y Model enters the world of all-mountain riding, represented by the liquid -containing portion of the glass.

The three general categories of riding (although with much overlap) are freestyle, freeride, and alpine. Freestyle riding consists mainly of using manmade features. Freestylers can play in the halfpipe, ride rails, and go off jumps of different shapes and sizes, on their own or combined with rails. Freeride consists mainly of using the natural terrain of the mountain to take advantage of bumps, steeps, the backcountry, and trees. Alpine riders often prefer to ride on groomed terrain and rip their boards on edge through the snow.

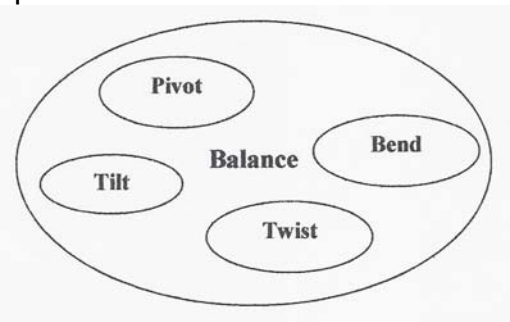
Unique blends of riding represented by the Y Model have come a long way. For instance, switch riding is applied in all three categories, and freestyle has evolved to include throwing technical tricks in the back-country. Freestyle, freeride, and alpine snowboarding require similar skills and contain similar elements, and all have elements of the others embedded.

All the elements of the Y Model the compilation of all that is snowboarding can he summed up within riders themselves. To better understand the mechanics of what happens while riding, we can look at two different aspects of any rider: movement concepts (or what the rider is doing) and performance concepts (or what the board is doing as a result of the rider's actions and/or terrain.) Snowboard teachers need to be well versed in both movements and performances. Each action has a reaction in the board. Understanding how the two are integrated is the key to snowboard teaching.

Riding Concepts

Once the rider has become comfortable with the parts of the snowboard, standing on the snowboard, and finding their balance, we can begin to manipulate these things to help move the snowboard.

Balancing Movements are the movements required to keep the body in equilibrium when it is acted upon by external forces. On a snowboard, basic balance is made up of the following performance concepts.



Performance Concepts:

- **Pivot** - When the board is moved in a "bow tie pattern" on the ground; the tip and tail moving in opposite lateral directions
- **Pressure (bend)** - Applying force to different sections of the board to manipulate it's interaction with the snow.
- **Tilt** - Raising one edge of the board higher then the other causing the edge to engage with the snow at a higher angle.
- **Twist (Torsional flex)** - The difference in edge angle between the tip and tail of a snowboard during a maneuver. Because of the elasticity of snowboard materials and structure, torsional flex represents stored energy, like a spring.

Movement Concepts

- **Flexion** - A movement that decreases the angle at a joint.
- **Extension** - A movement that increases the angle at a joint in a fore aft direction.
- **Rotation** - Circular movements about its axis; the spinning of a snowboard about an axis perpendicular to its base.
- **Circumduction** - The rotation of a limb around an imaginary axis so as to describe a conical surface.

The shape and style of our turns can be varied to fit the terrain we are on through manipulating the Timing, Intensity, & Duration of the board performances. This is also referred to as **TID bits**.

- **Timing** - When a body movement happens, generally relative to other movements.
- **Intensity** - How forceful a body movement is.
- **Duration** - How long a position is held for or how long to move through a range of motion, generally relative to other board or body movements.

Exercise	Key Points
"Responsibility Code"	"Buddy System" - The instructor should pair students up who work together and ride together.
Introduction	• Instructor's name - how to find you. • Students' names. • Students' background, goals, and experience and health. • Check where class will end, where to meet parents.
Gear check	• Gloves, hat, jacket, boots on correct feet. • Boots Tied Snug, esp. around instep. • One pair of socks, pants are outside of the boot.
Equipment introduction	• Deck, tip, tail, toe edge, heel edge, Side-cut, bindings (front and rear), highback, ankle strap, toe strap, leash.
Stance Basic demonstration of Movement Concepts: ***Flexion, extension, rotation, & circumduction.***	• Goofy or Regular- Demo and explain. • Athletic Stance. • Knees, ankles, & hips slightly flexible. • Evenly weighted over both feet. • Introduce idea of **lead foot** - not permanent.
Strap in lead foot Basic demonstration of Performance Concepts: ***Tilt, twist, pivot, & pressure***	• Make sure to explain importance of proper stepping. • In - tight to heel. • Explore weight distribution nose to tail. • Explore weight distribution toe to heel.
Basic movement on the board Skating – It's awkward but builds familiarity with the board.	• First moving exercise: CLASS MANAGEMENT. • Free foot ahead of back binding. • Free foot always uphill of the snowboard (on both heel-side and toe-side).
Direction changes & 1 footed climbing.	• Introduce "**Fall Line.**" • Keep the board perpendicular to fall line. • Introduce **edging**.
How to fall	• Tuck, curl, collapse. • Never Land On Open Hands.
1 footed side slip	• Short glide with board perpendicular to the fall line. Loose foot should sit on the stomp pad. • Add in a J-turn as learned in pivot exercise.
1 footed traverse	• A glide across the fall line loose foot should sit on the stomp pad. • Add in a J-turn at the end of the traverse as learned in pivot exercise.
Buckle in Trailing Foot How to get up, heel side and toe side.	• Buckle in seated. • Move Center of gravity over heel edge. • Press up from legs. • All one movement.
Heel and toe side slips ***(Also garlands, falling leaf, etc.)***	• Raise/Lower Edge angle = speed control. • Vary pressure distribution on the board. • Twist the Board = Flatter end goes downhill.
Riding the lift	• If they cannot stay up during tug of war or drag, they cannot ride the lift. • Make sure they understand etiquette of lift line and to clear the landing area.
Finishing the lesson: End the lesson with a cliff hanger. Bring them back! Review with parents - earns a gold star.	• Recap the lesson with a specific thought for each student, explaining what their next lesson will be about. • Remind them of your name and how to find you in the future.
Progression continued on next page	

Progression Continued:	
Before Moving On: Strong demonstration of movements	• Side Slip (on toe and heel)? • Can they stop on command? • Traverse with garlands & falling leaf?
Single skidded turn ("C shaped turns") This is highly based on the student's balance. Therefore this could last a whole lesson	• Gradual transition across base. • Modify stance (ie: turkey dinner, log in the woods.) • Introduce other **performance concepts** to help turn the board.
Join "C" Turns to "S" Turns	
Problems to watch for	• Turning the torso to turn the board. • Flailing arms for balance - back to slips, etc. • Looking down or grabbing for the snow. • Falling like a tree in the woods.
Vary turn sizes – smooth transitions between turns	• T.I.D. Bits (Timing Intensity Duration). • Sequential body movements feet first. • Cowboy Turns to affect the board.
Basic Freestyle	**Beginner's examples.** • Ollie from flat stop. • Nose/tail roll from flat stop. • 360's on snow.
Carved Turns	• Board path and turn path are parallel

If we look back to the Riding model, there are still many things that are still left un-addressed. This has been done intentionally. When a student has reached the end of the above progression it is time that they start to consider what style of riding they like. What they practice and are taught will vary from there. While some students may be interested in heading strait to the park, others may be more interested in trees, bumps, and steeps. In either case, move advanced training will be needed, but it wall all draw on the foundations we have laid down so far.

It is important to remember that people learn at different speeds. Some students will complete a series of exercises more quickly then others, these students will have to be entertained (and often times kept busy) repeating the skills they have already begun to master several times over. During this time other slower moving students will try to get to a proficient point on the same exercises.

You as an instructor will learn to assess when movement patterns have been sufficiently mastered to allow a student to successfully proceed. However; skipping any of these steps can often be detrimental to the student's success down the road.

Lifts:

Riding a surface lift (Handle tow, J-bar, T-bar, Rope tow, etc.)
Each student must be able to paddle, skate, etc. sideways with one foot strapped in while in full control and balance. Practice straight glides down a pitch to a flat.
Explain about lift line etiquette, stepping on other's equipment, alternating in line, etc.

Students should be comfortable coming out of their typical stance to stand a little further back on the board. The front leg should stay firm and hold the board out ahead of their **Center of Mass**. It is important to keep the snowboard tip pointed in the same direction as the lift has them traveling (uphill.) Try playing a game of tug of war with your students pulling them up the hill.

Watch several people load and repeat the routine. Explain about the timing of the lift: when a paddle or “J” starts to approach, begin to start stepping up the lift line while grabbing the device. Once the student has found their balance they can try to step in the stomp pad.

When you off load at the top of the lift, the student should quickly move away from the unloading area.

Riding the chair lift
Explain about the timing of the chairs: when the chair in front of you goes by, chase it out to the loading line. When you off load at the top, the skiers and riders in the chair behind you are chasing you -move away from the off loading area.

Watch several loading cycles and repeat the routine. Chase the chair to the line, look over your outside or inside shoulder, reach for the seat, sit one cheek on until the chair scoops you away, square up to the chair, lower safety bar, rest board on instep of free foot.

Remind the students about off loading: board down, foot down, stand up, push off the seat and glide.

Make sure they are given a meeting location at the top: in front of the patrol building, behind the lifty's shack, over by the trail merge, etc.

Terms and Definitions as taken from MSI Snowboard Manual

AASI - American Association of Snowboard Instructors, the certifying body of snowboard instructors.
Absorption - the use of flexion (bending) of the joints, either actively or passively, to reduce pressure on a snowboard.
Alignment - arrangement of the body so that the forces from the interaction of the snowboard with the snow pass through the center of mass and produce an intended movement. Alley-Oop - 180 degree turn plus uphill rotation...
ATS - American Teaching System: ski concepts, teaching concepts and service concepts. Ankle **Strap** - a strap on the boot or binding that wraps around the ankle to provide heel retention.
Anticipation - a mental and/or physical preparation.
Auditory Learners - Students who process information verbally and cognitively; these students enjoy descriptions and talking about their experiences.
Balance - The state of controlling the forces generated by the snowboard-snow interaction in order to remain poised and properly aligned on the board.
Balancing Movements - Muscular actions that maintain equilibrium or desired alignment on a snowboard.
Basic Riding - A style of riding in which a rider's center of mass and the center of the snowboard follow the same or a similar path.
Board Performance - See snowboard performance concepts.
Camber - The bridge-like arc seen when a snowboard is placed base down on a flat surface; spreads the rider's weight evenly along the length of the deck.
Carve - To make turns with a minimum of skidding. .
CASI - Canadian Alliance of snowboard Instructors.
Center of Mass (CM) - The point at which the entire mass of the body may be considered to be concentrated.
Counter Rotation - A movement of the upper body opposite to the direction of rotation of the snowboard; can be active or passive.
Dorsi-flexion - Ankle flexion; a movement of the toes toward the shin.
Dynamic Balance - A state of equilibrium maintained while a rider is in motion.
Edge Angle (tilt) - Is the amount (in degrees) that the board is tilted on its edge, relative to the snow. A "flat" snowboard has a O-degree edge angle.
Effective Edge Length - The length of the edge that has contact with the snow.
Falling Leaf - At the end of a traverse, when the snowboard is facing diagonally up the fall line and has stopped, the snowboard will begin to travel in the opposite direction, if the student is still on the board. Repeating this forward and backward ride across the slope is called the falling leaf.
Fall Line - The path a ball would take down a hill, not necessarily the direction the designers of the trails will have you take.
Fundamental Movements - Rotation, Flexion, Extension.
Garlands - A series of partial turns that do not require crossing the fall line.
Initiation - The beginning of a turn.
Leash - A device designed to prevent a runaway snowboard; required by law.
Movement Analysis - The process of observing a movement and deciding on the relevance and effect of that movement to other movements and sr1owboard performance.
Nollie - A maneuver used to get the snowboard off the ground by springing off the tip.
NSAA - National Ski Area Association
NSP - National Ski Patrol
Ollie - A maneuver used to get the snowboard off the ground by springing off the tail.
Pressure distribution (bend or longitudinal flex) - represents how the rider's weight and any additional pressure are applied along the length of the snowboard. The additional pressure is created by flexion or extension at certain joints, which causes the snowboard to bend at different places along its length. This bending is also called longitudinal flex.
Progression - A sequence of acts, movements or events that increase in difficulty and are designed to meet a goal.

PSIA - Professional Ski Instructors of America; we are in the Eastern Division.
Riding - Fundamental Movements + Snowboard Performance Concepts: change in one has an effect on the other.
Rotation (pivot) - Represents the amount the long axis of the snowboard is offset relative to its direction of movement. Rotation is described in relation to a pivot point on the snowboard, about which everything is turning.
Side cut - The component of shape of a snowboard in which the middle is narrower than the tip and tail. **Skate** - To move on a snowboard by pushing with the free foot.
Sketch - To lose control during part of a turn, maneuver, or landing.
Skidded Turn - A turn in which the edge slips laterally. A turn that is not carved.
Skidding - The movement of a snowboard that comprises simultaneous sliding and slipping.
Slam - a hard, uncontrolled fall.
Sliding - The movement of a snowboard across the snow, in the direction of its longitudinal axis.
Slipping - The movement of a gliding snowboard perpendicular to its longitudinal axis.
Smear - To turn with a low edge angle and pronounced lower body steering.
Stacking - The act of aligning the joints to gain mechanical advantage.
Stance - The general term indicating the location of the feet on a snowboard; stance can specify which foot is closer to the nose of the snowboard, the angles the bindings are positioned or the width of the placement of the bindings.
Stance angle - The measurement (in degrees) of the placement of each binding on a snowboard; a stance angle of 0 degrees describes facing the board edge, while a stance angle of 90 degrees describes facing the tip +90 degrees) or tail (_90 degrees).
Snowboard Performance Concepts - Tilt, Flex, Twist, Bend.
Steering - The act of guiding a snowboard with a blend of pressure, edging and pivoting.
Switch - Facing the direction of travel while riding backward.
Teaching Concepts - Teaching behaviors that help students improve and enjoy snowboard riding, while incorporating safety awareness.
Teaching Pattern - The elements of explanation, demonstration, practice, and feedback.
TID - Timing, Intensity, Duration - Each movement needs the correct starting point or timing, magnitude or intensity and the correct length or time or duration.
Torsional flex (twist) - Is the difference in edge angle between the tip and tail of a snowboard during a maneuver. Because of the elasticity of snowboard materials and structure, torsional flex represents stored energy, like a spring.
Transition - To end one turn and start a new one.
Traverse - To move across the slope without entering the fall line.
Turn Shape - The shape of the path a snowboard travels while turning on the snow. Un-weight - to reduce the pressure on part or all of a snowboard.
Visual Learners - Students who receive and store information best through visual input such as pictures, images and demonstrations.
Waist - The narrowest part of the snowboard. Near the center.
Wheelie - A maneuver that involves riding with the nose or tail of the snowboard off the ground.

Footnote:

Most if not all of the material presented in the 2005 Blue Hills Ski Area Snowboard ITC Technical Manual is adapted from the American Association of Snowboard Instructors Snowboard Manual *and* the American Association of Snowboard Instructors Snowboard Movement Analysis Handbook.