



ADAPTIVE ALPINE LEVEL 1 & Level 2 STUDY GUIDE 3-TRACK, 4-TRACK & SLIDER

Name: _____

This study guide is a valuable learning resource for instructors who desire to increase their knowledge of teaching adapted alpine skiing to guests with stand-up physical diagnoses (3-Track, 4-Track, or Slider ski disciplines) and prospective candidates for certification in the Stand-up Physical Diagnoses Module. Candidates must take the Adaptive Alpine Level 1 online exam for Stand-up Physical Diagnoses (3-Track, 4-Track & Sider) at least one week before the on-hill exam.

See the PSIA-RM-AASI ADA Policy [Here](#) to learn more about “reasonable accommodations” in assessments.

You can fill out this form by hand (print and write in answers) or electronically (save the document then insert responses).

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Local and program regulations and safety guidelines take precedence over this information. It is in your best interest to exercise due diligence in determining the appropriateness of the information for your particular circumstances. In addition, please take into account any and all factors that may affect your lesson. This includes but is not limited to the health, well-being and fitness of the student; weather conditions; terrain; other people on the slope; your own abilities, as well as those of your student and anyone who may accompany you.

This guideline provides links to other resources as well as websites owned by or maintained on behalf of third parties. The content of any such third- party source or site is not within our control, and we cannot and will not take responsibility for the information in them, nor should any references to them be considered any endorsement by PSIA-RM-AASI.

All answers can be found in the following resources:

PSIA-RM-AASI

Adaptive Alpine Assessment Support Material

3-Track & 4-Track Adaptive Teaching Guide

Slider Adaptive Teaching Guide

Free download <https://www.psia-rm.org/education>

American Snowsports Education Association, Inc.

Adaptive Alpine Technical Manual, 2017

Adaptive Instruction Supplement: Diagnoses and Medication Classifications, 2019

Alpine Technical Manual, 2014

Teaching Snowsports Manual, 2018

Core Concepts for Snowsports Instructors

[Digital manuals for every discipline](#)

Teaching Section

Matching: Match the following words with their definition. Each definition is used only once.

Source: *Teaching Snowsports, PSIA-RM Adaptive Alpine Assessment Support Material, Core Concepts*

- | | | |
|-----|--------------------|--|
| 1. | Learning Style | A. Questions that provide insights to your students' level of commitment and their emotional response to the lesson |
| 2. | Formal Operations | B. Piaget's stage of development from age 10+ |
| 3. | Generative | C. Movements learned by practice or experience that lead to a relatively permanent gain in performance |
| 4. | Motor Learning | D. Discussing the basic lesson format with students so they know what to expect |
| 5. | Open | E. A person's dominant or preferred mode of processing information |
| 6. | Proprioception | F. A sensory preference in which students have a heightened awareness of their bodies and how things "feel" |
| 7. | Guided Discovery | G. A teaching procedure in which a person demonstrates the correct performance of skills |
| 8. | Self-Actualization | H. The sense of the position and movements of the body and body parts |
| 9. | Kinesthetic | I. Focus on a broad range of activities within an ability level so the student can experience in-depth learning before progressing |
| 10. | Musical-Rhythmic | J. Repetition of movement patterns or other activities designed to develop or refine a skill |
| 11. | Modeling | K. One of the intelligences described by Gardner in which the learner has a propensity for sounds and rhythm and making music |
| 12. | Practice | L. The highest level of needs, as postulated by Abraham Maslow |
| 13. | Previewing | M. Questions used to initiate a discussion or gain information about a student's insights and opinions |
| 14. | Lateral Learning | N. Leading the students through a range of activities and/or questions that lead them to a specific answer |

Fill-in-the-blank: Fill the blank with the appropriate terminology.

Source: *Teaching Snowsports, PSIA-RM Adaptive Alpine Assessment Support Material, Core Concepts*

1. The process of evaluating student characteristics to determine how to structure individualized, effective lessons is known as _____.

2. When learning new movements, people move through three basic stages of development, which are lengthened for someone who has not yet matured. List these three stages:

3. List Maslow's Hierarchy of needs, beginning with the most pressing needs

4. When an instructor sets the students in pairs or groups, defining the roles of "doer" and "watcher," the instructor is using the _____ teaching style.

5. List the eight basic personality categories, based on Jung's Functioning Types:

6. _____ is Piaget's stage of development in which a person begins to visualize and manipulate objects mentally.

7. Dealing with issues such as low blood sugar or shivering from cold fall into Maslow's _____ needs.

8. We all pursue three basic goals. List these goals:

9. The learning domain related to thinking, analyzing, and speaking is called the _____ domain.

Multiple Choice: Mark the answer that best completes the statement or question.

Source: Teaching Snowsports, PSIA-RM Adaptive Alpine Assessment Support Material, Core Concepts

1. In terms of sensory preferences, students who depend strongly on visual input are considered which type of learners?
 - A. Visual
 - B. Auditory
 - C. Kinesthetic

2. For students who have a high level of musical-rhythmic intelligence, the best way to learn to vary turn size is to
 - A. Pair them up and have them imitate their partner's turn size
 - B. Ask them to visualize making short and long turns
 - C. Suggest that they sing a quick song in their head for short turns and a slow song for long turns
 - D. Ask them to plan the shape of the turn by spotting the trees on the side of the slope

3. Which of the following are tip(s) for using drills, progressions, or games?
 - A. Relate drills and progressions to actual situations
 - B. Avoid emphasizing precision and accuracy in executing drills to prevent the student from becoming discouraged
 - C. Use drills and games to achieve technical goals
 - D. Explain why a drill is being used and how it will be beneficial
 - E. Provide ample practice time

4. Which of the following describes characteristics of kinesthetic learners?
 - A. They have a heightened awareness of their bodies and how things “feel”
 - B. Directions make sense if given step-by-step
 - C. They learn best by doing
 - D. They may need to experience the sensation associated with a type of movement to understand the concept

5. Needing to be accepted and respected and be part of a group falls into which level of Maslow’s Hierarchy of Needs?
 - A. Physiological
 - B. Safety/Security
 - C. Recognition/Social/Belonging
 - D. Self-esteem
 - E. Self-actualization

6. Which of the following are reasonable suggestions for addressing students’ fear?
 - A. Develop a list of “cue sounds” that link them to past successes
 - B. Modify the task in a way that accommodates the student’s fear
 - C. Avoid discussing the fear, since talking about it magnifies the level of fear
 - D. Introduce the task on terrain where the student is comfortable

7. According to Jung’s Functioning Types, a perceiving person
 - A. Orients to the outer world by being flexible, spontaneous, and adaptive
 - B. Needs to get the global concept
 - C. Learns by attending to facts and data
 - D. Makes decisions based on values and inner harmony
 - E. Is very intuitive

8. The learning partnership consists of:
 - A. Student Makeup plus Instructor Behavior
 - B. Movement Analysis plus Teaching Cycle
 - C. Image plus Communication
 - D. Problem Solving plus Guided Discovery

9. According to Gardner's theory of multiple intelligences, a person who is adept in social situations and is persuasive as a leader is exhibiting which type of intelligence?
- A. Verbal-Linguistic
 - B. Interpersonal
 - C. Intrapersonal
 - D. Spatial
 - E. Bodily-Kinesthetic

Multiple Choice: Mark the answer that best completes the statement or question.

Source: Teaching Snowsports, PSIA-RM Adaptive Alpine Assessment Support Material, Core Concepts

1. Which of the following are points of *Your Responsibility Code*?
- A. Always stay in control.
 - B. People ahead of you have the right of way.
 - C. Stop in a safe place for you and others.
 - D. Observe signs and warnings and keep off closed trails.
 - E. The uphill skier always has the right of way.
2. Gauging your student's level of fitness and capabilities, identifying experience with snowsports and other sports, exploring motivations and desired outcomes for learning, recognizing, and responding to social and emotional behaviors are all part of which step in the Teaching Cycle?
- A. Assess students
 - B. Determine goals and plan experiences
 - C. Create experiences for learning
 - D. Guide practice
 - E. Review and preview
3. When an instructor controls all activities, makes all decisions, and tells students if they are right or wrong, that instructor is exhibiting which teaching style?
- A. Command
 - B. Task
 - C. Reciprocal
 - D. Guided discovery
 - E. Problem solving

4. Which of the following are points of the Park SMART safety message?
- A. Make a plan
 - B. Look before you leap
 - C. Always stay in control
 - D. Easy style it
 - E. Respect gets respect
5. The Park SMART Program was designed:
- A. For use on steep terrain
 - B. For use on beginner terrain
 - C. For use in the park and pipe
 - D. To make chairlift lines safer
 - E. For young students as an alternative to *Your Responsibility Code*

Technical Section

Matching: Match the following words with their definition. Each definition is used only once.

Source: *Alpine Technical Manual*

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|-----|--------------------|---|
| 1. | Carved turns | A. Maximum result or performance with minimal effort. |
| 2. | Angulation | B. Where the turn begins. |
| 3. | Efficiency | C. Used to shift your center of mass from side to side. |
| 4. | Initiation phase | D. Turns in which the skis travel on an edge with minimal lateral slipping or skidding. |
| 5. | Leg rotation | E. Turns in which the skis skid on corresponding edges. |
| 6. | Lateral movements | F. The recoil or springing back of a decambered ski. |
| 7. | Rebound | G. Laterally tipping and flexing certain parts of the body more than others to form angles between body segments. |
| 8. | Stemming | H. Tipping of the skier toward the inside of a turn. |
| 9. | Eversion | I. The application of force across a surface. |
| 10. | Christie turns | J. One of the skills of the PSIA skills concept. |
| 11. | Vertical movements | K. Used to raise or lower your center of mass. |
| 12. | Inclination | L. Movement of a body part outward, away from the midline of the body. Typically, this is associated with foot pronation. |
| 13. | Rotary | M. Movement of the skis sideways. |
| 14. | Slipping | N. The displacement of one ski to a position convergent with the weighted ski. |
| 15. | Pressure | O. Turning the legs in opposition to the pelvis and upper body. |

Fill-in-the-blank: Fill the blank with the appropriate terminology.

Source: *Alpine Technical Manual, Adaptive Instruction Supplement: Diagnoses and Medications, Core Concepts*

- The patella is also called the _____.
- Freezing or partial freezing of a body part is called _____.
- Compared to an adult, a child's center of mass is located slightly _____ (lower/higher) in the torso.
- A joint in which a convex part of one bone fits into a concave part of another, allowing motion in only one plane is called a _____ joint. Knee and finger joints are examples of such joints.

5. In terms of physics, the _____ is the average position of the mass of an object in three dimensions: front-back, left-right, and up-down. This is also known as the center of gravity.

Matching: Match the following words with their definition. Each definition is used only once.

Source: *Adaptive Alpine Manual, PSIA-RM Adaptive Alpine Assessment Support Material*

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|-----------------------------|--|
| 1. Paper-clipping | A. Disorder resulting from anoxia to the brain before, during or shortly after birth. |
| 2. Multiple Sclerosis | B. Medications prescribed for blood clot prevention. |
| 3. Cerebral palsy | C. Hereditary disease appearing in childhood, involving steady, progressive degeneration of spinal column and cerebrum. |
| 4. Epilepsy | D. Used for students who are unable to hold their legs in a wedge. |
| 5. Arthrogyposis | E. Amputation in which half of the pelvis and the associated leg are gone. |
| 6. Anti-coagulant | F. Chronic inflammation of the spine. Bones will often fuse. |
| 7. Parallel progression | G. Progressive disease that causes the myelin sheath around nerve cells to become scarred or to disappear so that the nerves no longer transmit the necessary signals. |
| 8. Friedreich's ataxia | H. Medications that control nausea and vomiting. |
| 9. Outriggers | I. Tubular frame for trunk and forearm support. |
| 10. Hemipelvectomy | J. Bamboo pole held at waist or chest height. Instructor and student ski beside each other. |
| 11. Single long pole assist | K. Forearm crutches with a regular or lightweight ski tip mounted at the base. |
| 12. Antiemetic | L. Condition of having immovable joints. |
| 13. Ankylosing Spondylitis | M. Disorder characterized by disturbed electrical rhythm of the nervous system and typically manifested by lapses of consciousness and/or seizures. |
| 14. Slider | N. Clamp type device with a hook and eye assembly, which screws to the tips of the skis. |
| 15. Metal tip connector | O. Occurs when the skier bends forward at the waist and relies excessively on the outriggers. |

Fill-in-the-blank: Fill the blank with the appropriate terminology.

Source: *Adaptive Alpine Technical Manual, 3-Track & 4-Track Adaptive Teaching Guide, Slider Adaptive Teaching Guide*

1. _____ is a system in which a webbing strap goes around each thigh, with a cord from each strap passing over a little pulley at the top of a slender fiberglass rod and down to a thick rubber band anchored in a swivel at the back of each boot, which also sockets the lower end of the rod.
2. The _____ gait is characteristic of quadriplegic spastic cerebral palsy. The legs are flexed and abducted at the hip joint, causing them to cross alternatively in front of each other with the knees scraping together.
3. Independent outrigger action and developing long to medium and medium to long radius turns are skill development outcomes of the 3-Track and 4-Track level _____ lessons.
4. When in doubt on the length of the outriggers for a beginning student, go _____ (shorter/longer) rather than _____ (shorter/longer) to avoid a stooped stance.
5. An outrigger that is _____ (too short/too long) will force the student to bend at the waist, which shifts weight to the _____ and applies little or no pressure to the boot tongue.
6. When teaching three-track skiers to turn, the first turn typically should be _____ (toward/away from) the side without the ski in order to utilize the student's strengths.
7. For a four-track skier, a _____, _____ or _____ gait may indicate the inability to ski in a wedge.
8. Outriggers bouncing and skipping on the snow indicate _____ (too much/too little) claw or tail interaction with the snow.
9. Medicines used for treatment of bladder spasms are called _____.
10. An amputation at the ankle is called a _____ amputation.

Multiple Choice: Mark the answer that best completes the statement or question.

Source: Alpine Technical Manual

1. In PSIA terminology, ATS is an acronym for:
 - A. Altitude, terrain, and slope
 - B. Advanced training system
 - C. American teaching system
 - D. Altitude training school
 - E. Advanced terrain skiing

2. What are the standard phases of a turn?
 - A. Initiation, shaping, finishing/transition
 - B. Front, middle, back
 - C. Primary, secondary, final
 - D. Preceding, shaping, following
 - E. Foregoing, seminal, following

3. The acronym DIRT stands for:
 - A. Duration, intensity, rate, and timing
 - B. Deflection, inclination, retraction, and traverse
 - C. Drill, inquiry, reply and task
 - D. Demonstration, inclination, reinforcement, and task

4. Flexing and extending in a turn are:
 - A. Rotary movements
 - B. Pressure control movements
 - C. Balancing movements
 - D. Edge Control movements
 - E. Steering movements

5. Garlands are turns that emphasize:
 - A. The shaping phase of a turn
 - B. The transitional phase between turns
 - C. The initiation and finishing phases of a turn
 - D. Edge and pressure control movements

Multiple Choice: Mark the answer that best completes the statement or question.

Source: *Adaptive Alpine Manual, PSIA-RM Adaptive Alpine Assessment Support Material, 3-Track & 4-Track Adaptive Teaching Guide, Slider Adaptive Teaching Guide*

1. Which of the following adjustments can be made on a contemporary model slider?
 - A. Height
 - B. Flexion and extension
 - C. Arm position
 - D. Hand grip choices and locations
 - E. Independent stopping fixator

2. When using heel stabilizers and tip stabilizers, what is the general safety rule?
 - A. You should never use heel stabilizers with a tip stabilizer.
 - B. You should not use heel stabilizers without a tip stabilizer
 - C. Heel stabilizers cannot be used by students who ski in a wedge
 - D. Tip stabilizers should only be fabricated from bungee cord
 - E. Do not slide on flat terrain

3. The four basic functions served by outriggers are:
 - A. Aid balance, propulsion, slowing and turning
 - B. Aid propulsion, impulsion, momentum, and carving
 - C. Aid balance, inertia, matching and anticipation
 - D. Aid stopping, starting, diverging and flow

4. Cants and lifts may be used to
 - A. Correct for pronation
 - B. Correct for supination
 - C. Compensate for differences in leg lengths
 - D. Compensate for inappropriate ski length
 - E. A, B and C

5. If a student has an atrophied leg, which of the following topics should be explored during the student assessment?
 - A. Circulation
 - B. Sensation
 - C. Ability to control movements
 - D. Possible osteoporosis or fragile bones
 - E. A, B and C

6. Select which guests with the following diagnosis would commonly use a slider.
 - A. AK (Above the Knee amputation)
 - B. Spina Bifida
 - C. Spinal cord injury C7 complete
 - D. Osteosarcoma and other cancers

7. For three-track skiers, pronation or supination of the dominantly weighted foot may indicate:
 - A. That the student will predominantly pressure the front or back of the ski
 - B. Inability to maintain a flat ski
 - C. A bilateral amputation
 - D. Nothing. This is not a reliable indicator

8. For a three-track skier, edging during a straight run may indicate:
 - A. The boot is too long
 - B. The outriggers are too short
 - C. The need for canting
 - D. A and C
 - E. A and B

9. Speed control, turning to a stop and linked turns are all skills to develop in the Slider Level:
 - A. One
 - B. Two
 - C. Three
 - D. Four
 - E. Five

10. Choice snow conditions and terrain for a 3-Track/4-Track Level 6 student would be:
 - A. Powder on any terrain
 - B. Soft bumps on easy blue terrain are not icy
 - C. Only groomed blue trails
 - D. A variety of snow conditions on trails that are not too steep and do not have bumps
 - E. A and B