



Revision 10-03-13

PSIA – Rocky Mountain Division – AASI

ADAPTIVE ALPINE LEVEL 1 & 2 WORKBOOK

BI-SKI & MONO-SKI



Name: _____

This workbook is designed to be a study guide for both your online and on-hill exams.

You must take the Adaptive Alpine Level 1 & 2 online exam for Bi-Ski & Mono-Ski at least one week before the on-hill exam.

Bring this completed workbook, along with your completed Bi-Ski & Mono-Ski Development Log to your on-hill exam.

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The essential eligibility requirements for each Adaptive Alpine Level 1 & 2 course and exam are presented in the PSIA-RM-AASI Adaptive Alpine Level 1 & 2 Exam Material. The standards are national in scope and their maintenance is necessary in the interests of public safety, effectiveness, value for the consumer, and guest/employer expectations.

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You may refer to the PSIA-RM-AASI Americans with Disabilities Act (ADA) Policy for further information.

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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.

You can fill out this form by hand or electronically. If you want to fill it in by hand, simply print this document and write in your answers. If you choose to fill this form out electronically, be sure to save the document and print it out.

All of the answers can be found in the following resources:

PSIA-RM-AASI
ADAPTIVE ALPINE LEVEL 1 & 2 EXAM MATERIAL
Free download

PSIA-RM-AASI
ADAPTIVE ENCYCLOPEDIA
Free download

PSIA-RM-AASI
ADAPTIVE INFORMATION GUIDE: BI-SKI
Free download

PSIA-RM-AASI
ADAPTIVE INFORMATION GUIDE: MONO-SKI
Free download

Professional Ski Instructors of America & American Association of Snowboard Instructors. *Adaptive Snowsports Instruction*. Lakewood, CO: The Professional Ski Instructors of America Education Foundation, 2003.

Professional Ski Instructors of America. *Alpine Technical Manual: Skiing and Teaching Skills, Second Edition*. Lakewood, CO: The American Snowsports Education Association Education Foundation, 2007.

Professional Ski Instructors of America & American Association of Snowboard Instructors. *Core Concepts for Snowsports Instructors*. The Professional Ski Instructors of America Education Foundation, 2001.

Teaching Section

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

Source: Core Concepts & Adaptive Alpine Exam Material

- | | |
|------------------------------------|---|
| 1. ___ Visual | A. Teaching style in which the instructor directs the students to a specific answer through a series of questions or experiences |
| 2. ___ Open question | B. A teaching style in which the instructor outlines the parameters of an assigned activity. Students are free to execute and practice the activity within the given boundaries |
| 3. ___ Teaching for transfer | C. Piaget's stage of development from birth to age 2 |
| 4. ___ Demonstration | D. A formula that combines what you want the student to learn with the situation you create to encourage learning and the appropriate terrain for success |
| 5. ___ Active experimenter | E. Person who is self-smart |
| 6. ___ Task | F. A system for identifying comprehensive categories of human capabilities |
| 7. ___ Skill/drill/hill | G. A sensory preference in which the student learns best by seeing or watching |
| 8. ___ Introverted | H. Perceives details first, then the whole; asks "how?" |
| 9. ___ Multiple intelligence | I. Activities used to isolate and develop skills |
| 10. ___ Lateral learning | J. Drawing upon a student's previous learning to help with present learning |
| 11. ___ Physiological | K. Used to initiate a discussion or gain information about a student's insights and opinions |
| 12. ___ Cognitive domain | L. Related to thinking, analyzing and speaking |
| 13. ___ Sensorimotor | M. Performing a task or exercise as an example for students |
| 14. ___ Intrapersonal intelligence | N. The most pressing needs, as postulated by Abraham Maslow |
| 15. ___ Guided discovery | O. According to Jung's functioning types, this type of person is tuned into his/her inner world |

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

Source: Core Concepts & Adaptive Alpine Exam Material

1. List the three categories of needs based on the Guest Centered Teaching model.

2. List Benjamin Bloom's stages of learning activities, starting from the superficial and moving towards the deeper, integrated meaning

3. Skiers with speech and language problems would be LEAST likely to use the _____ sensory preference.
4. The _____ teaching style is best suited for generating interaction between students because it clearly defines the roles of "doer" and "watcher."
5. Reaching one's potential while generating a peak experience is the level of _____ in Maslow's Hierarchy of Needs.
6. _____ questions limit discussions and are used to elicit information or confirm understanding and agreement.
7. When Abraham Maslow developed his Hierarchy of Needs, he visualized a pyramid with the most _____ needs on the bottom.
8. One of the first sensory systems to fully develop is the _____ system, which controls balance and the sense of movement. Located in the inner ear, this system provides information about the position of the head relative to the ground.
9. As the nerve cells are stimulated with movements, thoughts, or memories, a fatty substance called _____ is laid down along the pathways which link neurons in the brain and spinal cord, thus increasing the speed of neural transmission. This ongoing stimulation is the essence of "practice makes perfect."
10. Age-related declines in endurance are _____ (less/more) than declines in strength

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

Source: Alpine Technical Manual & Adaptive Alpine Exam Material

1. GCT is an acronym for _____ .

2. List the seven elements of the Teaching Cycle

3. Cite the seven points of *Your Responsibility Code*

4. Verifying your student’s level of physical and cognitive understanding is part of the _____ step in the Teaching Cycle.

5. Cite the four main points of The Smart Style Program. (Note: this has been changed from three to four points, so make sure that you check a current reference, like www.freestyleterrain.org.)

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

Source: Core Concepts & Adaptive Alpine Exam Material

1. The intelligence not included in Gardner's theory of multiple intelligences is:
 - A. Spatial
 - B. Bodily-Kinesthetic
 - C. Chemical
 - D. Logical-Mathematical
 - E. Musical-Rhythmic

2. When students are exhibiting fear, it is best to:
 - A. Convince them that their fear is imaginary.
 - B. Try to belittle their fear in a humorous way.
 - C. Acknowledge the fear with respect and respond positively to it.
 - D. Ignore the fear and let them overcome it by themselves.

3. In sensory preferences, the initials VAK stand for:
 - A. Vibration, Absorption, Kinetics
 - B. Three sensory preferences
 - C. Video, Autographic, Kinesis
 - D. Visual, Auditory, Kinesthetic
 - E. B and D

4. According to Jung's Functioning Types, a sensing person
 - A. Is easily hurt by criticism
 - B. Learns by attending to facts and data
 - C. Makes decisions based on values and inner harmony
 - D. Is very intuitive
 - E. Orients to the outer world by being flexible and spontaneous

5. The two types of activities included in the GCT model are
 - A. Abduction and adduction
 - B. Facilitation and identification
 - C. Cognitive and physical
 - D. Experiential and didactic

6. Wearing a helmet while mono or bi-skiing falls into the _____ level of Maslow's Hierarchy of Needs.
 - A. Safety/Security
 - B. Recognition/Social
 - C. Self-esteem
 - D. Self-actualization

7. Which of the following is a consideration when teaching children?
 - A. Strength
 - B. Location of center of mass
 - C. Length of limbs
 - D. A and B
 - E. A, B and C

8. In terms of sensory preferences, students who learn best by doing are considered _____ learners
 - A. Visual
 - B. Auditory
 - C. Kinesthetic

9. The _____ portion of the lesson is devoted to preparing for activity. This lesson segment often refers to muscles, but instructors also prepare student to learn through active listening and questioning.
 - A. Initial
 - B. Warm-up
 - C. Take-away
 - D. Rapport-building
 - E. Student assessment

10. In Kolb's classification of the four basic types of learners, _____ learners see the whole first, then the parts. They respond to and trust their emotions and learn best in discussions. They ask the question "why?"
 - A. Dynamic learners
 - B. Active experimenters
 - C. Analytical learners
 - D. Innovative learners

Technical Section

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

Source: Alpine Technical Manual

- | | |
|----------------------------|--|
| 1. ___ Stepping stones | A. The amount a ski is tilted relative to the surface of the snow and hill |
| 2. ___ Turn radius | B. Taking varying amounts of weight off the skis to manipulate and control pressure |
| 3. ___ Corresponding edges | C. Possible progressions which are designed with the understanding that there are multiple ways to teach effective skiing |
| 4. ___ Unweighting | D. The size of the turn |
| 5. ___ Platform | E. Inclination of the entire body without angulation |
| 6. ___ Sidecut | F. Also called fall line |
| 7. ___ Edge angle | G. The way a skier aligns his or her skeletal structure on the skis |
| 8. ___ Carving | H. Created by setting the edges deeply into the snow, this allows the skier to make movements such as stepping, stemming or rebounding |
| 9. ___ Steering | I. The muscular effort used to direct the path of the skis |
| 10. ___ Leverage | J. The amount of “hourglass” shape or waist a ski has |
| 11. ___ Gravity zone | K. When the tails of the skis follow the tips through the turn to leave clean arcs in the snow |
| 12. ___ Center of mass | L. Application of pressure in front of or behind the midpoint of the skis |
| 13. ___ Stance | M. The left edge of one ski/outrigger and the left edge on the other |
| 14. ___ Banking | N. Change the position of your center of mass forward and backward relative to your feet |
| 15. ___ Fore/aft movements | O. Represents the point around which all of a body’s mass is equally distributed |

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

Source: Core Concepts

- The angle between the extended axes of the femur and the tibia, measured at mid-patella (kneecap) is called the _____-angle

2. List three symptoms of Acute Mountain Sickness (AMS).

3. The thigh bone is also called the _____.

4. Flexion of the foot in an upward direction is called _____.

5. When a muscle performs work while getting longer, it is called _____ contraction.

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

Source: Adaptive Snowsports Instruction & Adaptive Encyclopedia

- | | |
|-------------------------------|--|
| 1. ___ Anticholinergics | A. May be attached to the bi-ski for lateral support |
| 2. ___ Hypoglycemia | B. Adjustments done to ski equipment to modify a skier's normal stance |
| 3. ___ Evacuation system | C. Also known as Cerebrovascular accident (CVA) |
| 4. ___ Fixed outriggers | D. Medications that reduce anxiety |
| 5. ___ Spinal fusion | E. Removal of a limb at the joint |
| 6. ___ Canting | F. A malformation of the spinal cord during fetal development |
| 7. ___ Muscular dystrophy | G. Not enough sugar. Can be triggered by unusual exercise (skiing), delays in meals, or too much insulin |
| 8. ___ Post-polio syndrome | H. Paralysis of the lower extremities |
| 9. ___ Stroke | I. Ditropan and Detrol |
| 10. ___ Autonomic dysreflexia | J. Disorders that cause progressive and irreversible wasting of muscle tissue |
| 11. ___ Sedative | K. Required for all mono-skis and bi-skis used on chairlifts |
| 12. ___ Paraplegia | L. Potentially life-threatening hypertensive occurrence produced by the body's inability to sense and react to specific stimuli. |
| 13. ___ Linkage | M. Lingering effects of poliomyelitis, causing paralysis of muscles |
| 14. ___ Disarticulation | N. Connects the seat to the ski(s) and usually consists of moving swing arms that allow the suspension to work but restrict movement in other planes |
| 15. ___ Spina bifida | O. Surgery that fuses vertebrae to stiffen the spine |

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

Source: Adaptive Snowsports Instruction & Adaptive Encyclopedia & Adaptive Information Guides (Bi-Ski & Mono Ski)

1. _____ is a neurological disability where the nerve fibers become scarred, thus interrupting the transmission of messages to various body parts.
2. Dantrium and Lioresal are _____, a class of medications that relieve muscle spasms.
3. The seat of the mono-ski or bi-ski is equivalent to a stand-up skier's _____.
4. Medium to short radius turns, upper/lower body separation and bump skiing on easy blue terrain are all objectives of the mono ski level _____ progressions.
5. _____ is the paralysis of all four limbs.
6. List the regions of the spine and the number of vertebrae in each.

7. Prednisone and Ibuprofen are in the class of medications called _____.
8. The two types of outriggers available to bi-skiers are called _____ outriggers and _____ outriggers.
9. For mono-skiers, the rule of thumb is that a heavier skier needs _____ (more/less) suspension tension, while a lighter skier needs _____ (more/less) suspension tension.
10. A bi-skier using fixed outriggers _____ (may/may not) ski independent of a tetherer.

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

Source: Alpine Technical Manual & Adaptive Alpine Exam Material

1. Garlands do NOT include which phase of the turn?
 - A. Initiation
 - B. Shaping
 - C. Finishing

2. In terms of blending skills, powder skiing requires:
 - A. More rotary than hardpack
 - B. Similar skill blend to bumps
 - C. More edging than hardpack
 - D. A and B
 - E. B and C

3. Any movement that increases the angle at a joint is called
 - A. Extension
 - B. Friction
 - C. Perception
 - D. Deflection
 - E. Proprioception

4. Edge change (releasing and re-engaging) occurs through _____ movements.
 - A. Flexing and Extending
 - B. Tipping
 - C. Turning
 - D. Balancing
 - E. Hopping

5. A combination of sliding and slipping as the skis move forward through a turn is called:
 - A. Skidding
 - B. Sliding
 - C. Slipping
 - D. Shaping
 - E. Sloping

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

Source: Adaptive Snowsports Instruction & Adaptive Encyclopedia & Adaptive Information Guides (Bi-Ski & Mono Ski)

1. A kidney belt may be used with a bi-skier for:
 - A. Upper body stabilization
 - B. Maintaining body temperature
 - C. Keeping snow out
 - D. Aesthetics

2. Which objective is NOT typically included in the level 3 mono-ski progression?
 - A. Linked turns
 - B. Varying turn shape and size
 - C. Hip and lower body angulation
 - D. Hockey stops

3. During the dowel test, the student is in the apparatus and the balance point is found when the student can:
 - A. Lean forward and touch the front of the ski to the ground.
 - B. Pressure the tip of the ski with a slight head tip forward and pressure the tail with a slight tip backward.
 - C. Remain centered on the dowel while leaning from side to side and touching the outriggers to the ground.
 - D. Lean backward and touch the tail of the ski to the ground while using the outriggers for balance.

4. A person with Athetoid Cerebral Palsey has:
 - A. Extraneous and uncontrolled movements
 - B. Diminished muscle tone
 - C. Muscle atrophy of the peroneals and toe extensors
 - D. Tense, contracted muscles

5. The two main types of Spino-cerebellar Degeneration are:
 - A. Charcot-Marie-Tooth Disease and Myotonic Ataxia
 - B. Duchenne Ataxia and Spastic Ataxia
 - C. Charcot-Marie-Tooth Disease and Friedreich's Ataxia
 - D. Meningocele and Meningomyelocele
 - E. Aphasia and Dysarthria

6. The function of the shock on a mono-ski includes controlling:
 - A. Rotary
 - B. Pressure
 - C. Edging
 - D. Steering

7. What factors determine the position of the foot tray on a mono-ski?
 - A. Contact between the thighs and the seat bottom
 - B. Spasticity
 - C. Comfort
 - D. A and B
 - E. A, B and C

8. As an instructor assisting a mono-skier after a fall, you should:
 - A. Be cautious not to put yourself, especially your back, in an awkward position.
 - B. Remove the mono-skier's outriggers.
 - C. Place the mono-ski across the fall line.
 - D. A and C
 - E. A, B and C

9. Chairlift loading procedures, outdoor static balance exercises and outrigger position while moving are all objectives of the bi-ski level _____ progression.
 - A. One
 - B. Two
 - C. Three
 - D. Four
 - E. Five

10. In terms of arm position, mono-skier's athletic stance can be described as:
 - A. Arms as straight as possible
 - B. Upper arms hanging vertically at the sides, with a slight space between elbows and body
 - C. Lower arms hanging at the same angle as the outrigger shafts
 - D. A and B
 - E. B and C