Skills Booklet

CAVING ACADEMY INTERNATIONAL

Name: _____

Knots	Passable	Proficient	Perfect
Figure 8 - on a bight			
Figure 8 - follow-through (around/through an object)			
Double Figure 8 - on a bight (bunny-ears)			
Double Figure 8 - on a bight w/ forward facing loop			
Directional Figure 8			
Bowline - single strand around an object (with safety)			
Bowline - snap bowline around an object (with safety)			
Bowline - on a bight (double loops)			
Bowline - on a bight through an object			
Bowline - on a bight w/ forward facing loop (double loop)			
Alpine Butterfly (twist method)			
Alpine Butterfly (around the hand method)			
Double Alpine Butterfly			
Barrell Knot (double-overhand, stopper knot)			
Barrell Knot - on a bight (scaffold knot, slip knot)			
Square Knot			
Water Knot (tied at the ends)			
Water Knot (tied at an offset)			

Bends	Passable	Proficient	Perfect
Figure 8 Bend			
Double Fisherman's Bend (double overhand bend)			
Sheet Bend (with dissimilar diameter lines)			
Alpine Butterfly Bend			

Hitches	Passable	Proficient	Perfect
Clove Hitch (tied around an object)			
Clove Hitch (slid over/onto an object)			
Münter Hitch (with lock-off)			
Girth Hitch (with a sling)			
Prusik Hitch			
French Prusik			
Klemheist			
Bachmann(carabiner)			
Blake's Hitch			

SRT Skills	Passable	Proficient	Perfect
Assembling SRT System			
Concepts of system sizing and gear optimizations			
System Safety Check			
Ascending			
Descending			
Descender soft lockoff			
Descender hard lockoff			
Changeover - ascending to descending			
Changeover - descending to ascending			
Downclimbing			
Determine the appropriate attachment to a segment (cowstail/ascender/descender)			
Determine the appropriate attachment to double anchors (y-hang,			
Knot pass - with attachment point - ascending/descending			
Knot pass - without attachment point - ascending/descending			
Deviation - minor offset - ascending/descending			
Deviation - significant offset - ascending/descending			
Rebelay - minor offset - ascending/descending			
Rebelay - significant offset - ascending/descending			
Rebelay - with a long knot bight - ascending/descending			
Rebelay - with a short rebelay loop - ascending/descending			
Rebelay - with a symmetric double-anchor - ascending/descending			
Rebelay - with an asymmetric double-anchor - ascending/descending			
J-Hang - large loop			
J-Hang - small loop			
Traverse line - with ledge			
Traverse line - without ledge			
Tensioned traverse line - level with good tension			
Tensioned traverse line - slope and/or poor tension			
Guided tensioned line - descending			
Guided tensioned line - ascending vertically (footloop redirect)			
Guided tensioned line - ascending in-line (no footloop redirect)			
Backup Solutions	**Passable**	**Proficient**	**Perfect**
Hasty Harness			
Ascending with prusiks			
Descending with a Münter			
Descending on two biners (Kessler rack)			
Descending with a body belay (slope)			
Bottom-belay (highly gear dependant)			

Anchor Placement	Passable	Proficient	Perfect
Rock quality evaluation			
Slinging natural anchors			
Threading natural anchors			
Placing knot chock/rock chock			
Placing nut anchor			
Placing cam anchor			
Understand good bolt placement			
Understand acceptable anchor/hanger loads - angles, sheer forces, and pull-out			
Place self-driving anchor (Raumer TAP/Petzl SPIT)			
Place hand-drilled anchor (Raumer RAINOX)			
Place hammer-drilled anchor (Raumer RAINOX)			
Place expansion bolt (Raumer FIX)			
Place resin anchor (Raumer ANTRAX)			
Place Multi-Monti reusable screw			

Hanger Selection	Passable	Proficient	Perfect
Bent Hanger (perpendicular carabiner alignment)			
Twist Hanger (parallel carabiner alignment)			
Ring Hanger			
Raumer Sghembo			
Raumer Minitop			
Petzl Clown			
CT Caving Anchorage			
Petzl Pulse			

Rigging Concepts	Passable	Proficient	Perfect
Discuss types of rigging and how it influences rope/knot selection			
Discuss rope choice (mm, material, and construction)			
Discuss knot selection and use			
Discuss rope protection *gasp*			
Discuss SSSF and force calculations			
Inventory equipment needed based on rigging diagram			
Demonstrate Y-hang with double figure-8			
Demonstrate Y-hang with double bowline			
Demonstrate Y-hang from offset points with independent knots			
Demonstrate Y-hang from dyneema (no carabiners)			
Demonstrate connecting two ropes at an anchor			
Demonstrate connecting two ropes in free-hang			
Demonstrate isolating damaged rope			
Demonstrate 2-point Load Sharing Anchor System (sling/cord)			
Demonstrate 3-point Load Sharing Anchor System (sling/cord)			
Demonstrate 2-point Load Distributing Anchor System (sling/cord)			
Demonstrate 3-point Load Distributing Anchor System (sling/cord)			

Rope/Gear Management	Passable	Proficient	Perfect
Perform software/hardware safety inspections for wear/damage			
Flake a rope into a rope bag with stopper knots and explain pros/cons of the method			
Coil a rope in a butterfly coil and explain pros/cons of the method			
Coil a rope in a caver's coil and explain pros/cons of the method			
Prepare a rope/rigging bag based on inventory			
Rack gear and rope bag in preparation for rigging			
Rigging	Passable	Proficient	Perfect
Rigging a cave with a diagram			
Rigging a cave without a diagram			
Derigging a cave/segments by pulling the rope			
Derigging a cave/segments directly into a rope bag			
Determine the safe zone			
Starting a segment from natural anchor(s)			
Starting a segment from bolts			
Starting a segment from points distant from each other			
Rigging an approach line - traverse line			
Rigging an approach line - ascent/descent line			
Explain the safety factors pertaining to a single-point rebelay			
Rigging a rebelay from one bolt			
Rigging a rebelay from two bolts			
Derigging a rebelay			
Rigging a deviation including force/anchor point discussion			
Derigging a deviation			
Rigging a traverse line			
Derigging a traverse line			
Rigging a J-hang			
Derigging a J-hang			
Rigging a tensioned traverse			
Derigging a rensioned traverse			
Rigging a guided tensioned line			
Derigging a guided tensioned line			
Aide Climbing	Passable	Proficient	Perfect
Traditional Etrier			
Etrier Stepladder			
Raumer Stickup			

Small-Party Self-Rescue	Passable	Proficient	Perfect
3:1 hauling system from personal gear (ascending system and stop)			
3:1 hauling system with biners and prusik			
3:1 hauling system with biner, pulley, and prusik			
3:1 hauling system with two pulleys, one with progress capture			
3:1 hauling system - passing a knot			
Breaking into a loaded line - 3:1 haul			
Breaking into a loaded line - counterweight pick-off			
Breaking into a loaded line - 3-biner counter-weight			
Direct-haul pick-off			
Counterweight pick-off - footloop			
Counterweight pick-off - long cowstail			
Croll-croll pick-off			
Rope-cutting pick-off			
Accurately choose pick-off methods based on situation			
Passing a rebelay with a patient			
Convert a rebelay (or deviation) into a releasable system			
Passing a knot with a patient			
Traverse line pickoff/transport			
Rescue a patient hanging from a descender			
Rescue a patient hanging from ascenders			
Rescue a patient in the bottom of a rebelay loop			
Rescue a patient hanging from a rebelay anchor			
Rescue a patient mid traverse-line			
Rescue a patient in a J-hang from the ascending side			
Rescue a patient in a J-hang from the descending side			
Rescue a patient from tensioned traverse			
Rescue a patient from a guided tensioned line			
Rescue a patient in-cave without warning			
Rescue a patient from above multiple segments			
Rescue a patient hanging from an incomplete segment			