

COPE & Climbing Foundation Level II Lesson Plan

Getting Acquainted	30 minutes
Safety Measures & Accident Prevention	30 minutes
Climbing & Rappelling	2 hours
Pulley Systems	2 hours
Emergency Preparedness	6 hours
Universal Access	2 hours
Basic Maintenance	<u>1 hour</u>
Total	14 hours

COPE & Climbing Foundation Level II Lesson Plan 2

Subject: Getting Acquainted

Course: COPE & Climbing Foundation; Level II

Time: 30 min (+ time for appropriate ice breaker activity)

Note: This section is not needed if Level I and Level II are taught together with the same participants

Instructional objectives:

- State the overall goals of this course
- Get acquainted with other members of the class

Training Aids and Equipment Required:

- None

Materials for Distribution:

- BSA COPE and Climbing manual
- Outdoor Program Organizational Chart (on BSA flash drive)

Methods and Overview:

- Introductions
- Group participation

Lesson plan:

- Greet participants and introduce yourself

Course Goals

- Train instructors that will conduct and oversee COPE/Climbing operations and programs.
- Conduct training and exercises that teach appropriate behavior by staff members and participants.
- Cover logistics of the week, including uniforming and facilities.
- Set ground rules
 - Gravity effects everyone
 - You can die
 - Everyone is responsible for safety
 - You must follow all safety protocols
- Course expectations
 - Be open minded
 - There is safe, safer and safest ways to accomplish tasks
 - Requirements for successfully completion of the course.
 - Attend all classroom and field sessions
 - Participate in all sessions
 - You do not need to be a world class climber to successfully complete the course
 - You will need to be able to resolve incidents that may necessitate the use of technical skills in the vertical realm
 - Be familiar with the BSA National Standards
 - Successfully pass the practical skills and/or written exam

Getting Acquainted

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- Introduce each staff member.
 - Have each staff member provide some background information about their Scouting and climbing/COPE experience.
- Have participants introduce themselves
- Ice Breaker Game

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Subject: Safety Measures / Accident Prevention
Course: COPE & Climbing Foundation; Level II
Time: 45 minutes

Instructional objectives:

- Be able to evaluate participant self-screening from health history & questioning.
- Understand the responsibility of running a safe program.

Training Aids and Equipment required:

- *Current National Camp Accreditation Program Standards, COPE & Climbing Appendix, current edition*
- *COPE/Climbing Text book, current edition*

Materials for Distribution:

- Blank Annual Health and Medical Record

Methods and Overview:

- Activity: Determining program supervision requirements and responsibilities
- Mini-lecture: Program risk management.
- Group discussion: Participant screening.

Lesson Plan:

Group Discussion & Activity: Standards, Staffing & Supervision

Discussion of Standards

- Do not review standards in detail
- Discuss that BSA and ACCT standards are the basis for program safety and risk management.
- Instructors must be familiar with standards and ensure that all standards are being met by all staff and participants.
- Discuss how instructors can break the “chain of bad decisions” that might lead to incidents.
- Highlight NCAP standards regarding staffing and participant requirements.
- Divide the class into groups of 3-5 people
- Give each group a different scenario for a COPE or Climbing activity
 - Group of 15 young men & women from a Venturing camp going on a daytime climbing activity at a nearby National Forest location
 - Group of 47 Cub Scouts at a day camp climbing activity on a climbing wall that has been designed for Cub Scout use
 - Group of 20 older Boy Scouts doing a multi-day COPE program including both low and high challenge activities
 - Group of 120 college freshmen students doing a daytime orientation program that includes a 6-hour low challenge course program
 - Group of 32 middle school students who are “peer conflict managers”. They have been brought to your challenge course by their school counselor to explore conflict management techniques.
 - **Or...**make up your own scenarios.
- Ask each group to answer the following questions:
 - What staffing is required to deliver the program according to the standards?

- What additional staff would you add to make the program effective, and why?
- Ask each group to present their results to the class.

Mini-Lecture: Program Risk Management

- Climbing and rappelling activities often have a high degree of perceived risk. If the activity is properly conducted and facilities and equipment are in good condition, actual risk should be minimized.
- Instructors are charged with the responsibility for taking appropriate action to reduce the likelihood of injury to participants, staff members, and onlookers.
- Rules must be enforced; listing rules but then failing to uphold them may expose a program to liability.
- Instructors must model good behavior by always following the rules themselves.
- Be aware of staffing, environmental conditions, and maintenance issues that would affect the safe operation of the program.
- Once an instructor discovers or has been made aware of a situation that is hazardous, he or she must take corrective action.
- As an instructor, you have the responsibility to avoid putting a participant in a activity beyond his/her capability.
- Instructors need to make participants aware of the inherent risks of the COPE or climbing activity.
 - Use your council's procedure for informed consent
 - BSA Health Form (for Scouts)
 - COPE & Climbing Participant Release (for non-Scouts)
- Level II instructors are responsible for the safe operation of the entire program and the staff involved
 - Proper number and type of staff
 - Basic needs (food, water, sleep)
 - Follow local operating procedures for the camp/program
 - Monitor and assess environmental conditions
 - Severe weather
 - Heat
 - Cold
 - Wind
 - For natural climbing sites, additional risk management measures are covered in the Site Management section of the Climbing course.

Group Discussion: Participant Screening

- Emphasize that COPE and climbing instructors are not qualified to perform medical screening.
- Participants provide self-screening through their health history on the health forms. We may ask questions to clarify the participants' readiness to participate in our activities.
- Instructors should explain the activities to the participants and ask them if they have any health related concerns with participating.
- Some activities may be adapted so that people with medical conditions or physical limitations can participate in them safely.

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Subject: Climbing and Rappelling (Tower/Artificial surfaces)

Course: COPE & Climbing Foundation; Level II

Time: 2 hours

Instructional Objectives:

At the end of this session, participants will be able to:

- Set up climbing and rappelling events on the tower
- Operate a top-rope climbing and rappelling activity

Lesson plan: Climbing and Rappelling

Tower Rigging

- Evaluate the tower site and structure for safe operation
- Set-up the tower for climbing and rappelling events

Tower Operation

- Have the participants operate and supervise the tower exercise
- Apply the CHECK system and use proper communication
- Operate the tower stations that have been set-up previously for several climbs
- Rotate participants through climber, rappeller, and belayer positions
- Staff should be evaluating participants as they participate in the exercise

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Subject: Pulley systems

Course: Project COPE & Climbing; Level II

Time: 2 hours

Instructional objectives for level II syllabus:

- Be able to identify different types of pulley systems
- Understand the principles of mechanical advantage
- Be able to build pulley systems for rescues or universal access programs

Training Aids and Equipment Required

- BSA COPE & Climbing Manual
- Ropes, friction devices, pulleys, tethers, carabiners, prusiks or other progress capture devices and other equipment to rig a variety of pulley systems

Materials for Distribution

- Loops of string or key chain carabiners

Methods and Overview

- Presentation and group discussion
- Demonstrations
- Group activities

Lesson plan:

Presentation and group discussion

- Show different types of pulleys and identify the common parts of the pulleys.
- Explain the difference between simple, compound, and complex pulley systems.
- Show a 2:1 pulley advantage system and explain how the mechanical advantage is created (work = force X distance).
- Explain the need to have a progress capture in each pulley system and explain several methods to accomplish this.
 - Prusiks
 - Prusik minding pulleys
 - Mechanical progress capture device (e.g. Pro-traxion, Jumar etc)
 - Using primary belay as progress capture
- Show several different types of pulley systems and give applications as to how they can be used in for incident resolution or for universal access programming.
 - 2:1 Simple system
 - 3:1 Simple system
 - 4:1 Simple system
 - 5:1 Simple system
 - 6:1 Compound system
 - 5:1 Complex system

Group activity

Challenge the group to build different types of pulley systems. Use those systems to break loops of string or keychain carabiners, or use the systems to lift a heavy load.

- 2:1 Simple system
- 3:1 Simple system
- 4:1 Simple system
- 5:1 Simple system

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Subject: Emergency Preparedness
Course: COPE & Climbing; Level II
Time: 6 hours

Instructional objectives:

- Be able to implement a program specific first-aid kit.
- Be able to implement a program specific rescue kit
- Know the proper sequencing of rescue techniques
- Be able to properly demonstrate techniques to safely facilitate a rescue
- Be able to implement a program specific emergency response plan

Training Aids and Equipment Required

- COPE & Climbing Reference Manual
- First aid kit for typical program emergencies
- Site specific rescue kit
- Ropes, friction devices, pulleys, tethers, carabiners, etrier and other equipment to rig belay system and lift system to rig demonstrations at height

Materials for Distribution

- Emergency plan for the site where the training is taking place

Methods and Overview

- Presentation and group discussion
- Group activities
- Demonstrations

Lesson plan:

Presentation & group discussion

- Review what should be in a typical first aid kit for likely program emergencies.
- Explain the 3 categories of incidents that can lead to a rescue.(Emotional, Technical, Medical)
- Review what things should be in place during any program to help facilitate a rescue if one should be necessary.
- Explain the CALM order of rescues and relate that to the preferred rescue outcomes.
- Demonstrate different types of rescue techniques for each stage of CALM.
- Review what items might be in a site-specific rescue kit.
- Review procedures from the program specific emergency response plan.

Group activity instruction

- The staff should describe the first set of rescue methods. Then the group goes to perform those rescue methods in the role of participant and rescuer. Everyone should review the next set of rescue methods before performing those methods.
- Group activity for assisted rescue
 - Show how to get a participant with a static belay back onto an event with an etrier
 - Show how to get a participant with a static belay back onto an event with a 3:1 pulley system.
 - Show how to get a participant with a dynamic belay back onto an event with a vector lift

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- Show how to get a participant with a dynamic belay back onto an event by using a 3:1 pulley system to assist the belay team.
- Show how to use a releasable rappel line to clear a jammed friction device to where the participant can continue their rappel.
- Show how a rappeller would self rescue when his friction device has become jammed.
- Group activity for when a participant is lowered
 - Show how to use a releasable rappel line to lower a participant to the ground when the friction device becomes jammed.
 - Show how to put a dynamic belay line on a participant that is already on a static belay system so they can be lowered.
 - Use a belay line to vector lift to remove participant from static belay system and lower them to the ground.
 - Use a 3:1 pulley system to remove participant from static belay system and lower them to the ground.
- Group demonstration for when a participant falls from an element on a static belay and is unconscious or otherwise incapacitated (when the participant is moved)
 - Stress that 911 should be called first (or during camp session, use camp medical emergency procedure).
 - Demonstrate the following:
 - Attach a belay system with a 3:1 or 4:1 mechanical advantage to the overhead belay line.
 - Attach the mechanical advantage system to the participant's harness. This can usually be done by a staff member from the element. *Note: In the unlikely situation where this is not possible, the rescuer can be lowered to the participant on a separate belay line in order to attach the mechanical advantage system to the participant's harness.*
 - Have the belay team raise the participant so that the staff member performing the rescue can detach the participant from the static belay.
 - Have the belay team lower the participant to the ground and render appropriate first aid.
 - Stress that assisted belay transfer rescues are only used as a last resort.

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Subject: Universal Access

Course: COPE & Climbing Foundation; Level II

Time Frame: 2 hours (including demonstration of raising, traversing, and lowering on high element)

Instructional Objectives:

At the end of this session, participants will be able to

- Understand the specific needs of any special needs groups making plans to use your program
- Implement plans to accommodate special needs persons
- Demonstrate ways to modify events and processes for programs to accommodate special needs
- Help special needs persons ascend, traverse, and descend on a high element

Training Aids and Equipment Required

- COPE and Climbing Reference Manual
- Seat Sling, spreader bar, ropes, friction devices, pulleys, tethers, carabiners, and other equipment to rig belay system and lift system/progress capture for event at height demonstration

Materials for Distribution:

None

Methods and Overview:

- Discussion and group activity: Understanding Special Needs and Making Accommodations
- Group activity: Developing Plans to Accommodate Special Needs Persons
- Demonstration: Ascend, Traverse, and Descend on an event at height Using Universal Access Equipment

LESSON PLAN: Universal Access

Understanding Special Needs and Making Accommodations

Divide the class into several groups and assign one of the following scenarios to each group:

1. This group consists of 8 young adult military veterans who have limited use of their legs due to injuries sustained in combat. Four are completely dependent on wheelchairs for mobility, and four have limited use of their legs, but lack the ability to walk more than a few feet at a time without assistance.
2. This group consists of 15 middle school students who have difficulty maintaining concentration, focus, and attention on tasks in school. Eight of them have learning disabilities as well, including difficulty with reading or following verbal instructions.
3. This group consists of twenty-three residents of a group home for people with cognitive challenges. The participants vary in age from early 20's to late 50's. Their developmental age equivalent varies from age 6 to age 10.
4. This group consists of 9 adjudicated young women who have been ordered to take part in a developmental program. The program leaders have decided to include a day at your site as part of this overall developmental program.

Ask each group of students to do the following:

1. Given the physical, mental, or emotional challenges they might encounter in their scenario, list the number of care-givers and the support that might be required of them for the participants
2. Identify several activities that might be used in a 4-hour COPE or Climbing program, and what accommodations would need to be made to enable the participants to complete the program

Ask each student group to present their recommendations to the entire class. Facilitate a discussion following each presentation to bring out the following:

- When programs are conducted for groups with special needs, adult leaders familiar with the conditions and abilities of the participants are available to assist.
- The number and requirements for skilled care-givers varies with each circumstance. The COPE or climbing program leaders should discuss their program with the care providers who understand the physical, mental, and emotional needs of the participants so that each understands what they need to do to provide program safety and to achieve the intended results from the program.
- Generally, COPE and climbing instructional staff are not experts in dealing with special needs. Recognizing this helps to facilitate communication with the care-givers in order to provide a safe and effective program.
- Accommodations can often be made that are not expensive or difficult to implement, such as changes to the objectives of a Climbing event or adjustments to the story behind a COPE element. Some events lend themselves to accommodation while others are quite difficult to modify. Ask the class to identify some activities that might be easy or difficult to adapt for use with participants with special needs.

Ascend and Descend on an event at height Using Universal Access Equipment

Perform a demonstration using universal access equipment to do the following:

- Raise a participant from a wheelchair in a seat sling using a pulley system
- Lower the participant back into the wheelchair on the ground using a pulley system
- Climbing an artificial structure with a counterweight system

Demonstrate how the participant can contribute by lifting themselves with their arms using the pulley system. The following safety precautions must be taken to ensure the safety of the participant:

- The participant must be on belay at all times using an appropriate harness and belay system that is separate from the lifting system.
- A method of capturing progress in the lift system should be used that can be released in order to lower the participant.
- A safety tether should be used to secure the participant once the ascent is complete. The tether must be able to be released to allow lowering.

Discuss the demonstration and ask the students how they think they can implement universal access on their course at home.

Subject: Basic Maintenance

Course: COPE/Climbing Foundation; Level II

Time Frame: 60 minutes

Instructional Objectives:

- Describe the responsibility for inspection & record keeping
- Pre-use inspection
- Semi-annual self-inspection and documentation
- Annual professional inspection and documentation
- Describe maintenance/corrective actions
- Describe commonly used challenge course hardware
- Be able to implement the tasks on the course routine maintenance schedule

Training Aids and Equipment Required

- Current *COPE & Climbing Training Manual*
- ACCT Standards
- Construction pole mock-up (optional) see Todd
- Construction tools (optional)
 - Torque wrench
 - Ferrule crimper
 - Cable cutter
 - Come-along & cable grips
 - Slings

Materials for Distribution

- COPE & Climbing/Rappelling National Standards
- Handout of “Basic Maintenance for Level II Instructors” PowerPoint
- ACCT Standards

Methods and Overview

- PowerPoint presentation discussion
- Demonstration on “construction pole mock-up”
- Alternative: Construction or maintenance service project on challenge course element for host camp

Lesson Plan Level II:

The instructor should set up the “construction pole mock-up” (if used) to illustrate basic terminations and other challenge course hardware usage. This may be referred to as the instructor facilitates a discussion to overview the principles of construction on challenge courses using the PowerPoint presentation “Basic Maintenance for Level II instructors”. The following areas should be emphasized during the discussion:

- Site Selection
 - Signage
 - Limited access
 - Disabling
- Key documents
 - BSA standards
 - ACCT Standards
 - Self-inspection documents

- Professional builder inspection document
- Previous visitation documents
- Element support structures
- Forces on the challenge course belay system
- Critical Vs non-critical applications
- Hardware & tools
- Terminations

Remember to emphasize that Level II Instructors are not expected to be challenge course construction experts. That is one of the reasons that the standards require annual inspections by a professional challenge course builder.