

Top Rope Rock/Ice Climbing Trip Leader Standards

1. Introduction

The skills and guidelines in this document are intended to provide standards for the “**mountain skills**” needed to be a successful CMC technical trip leader for this activity. These skills are in addition to those outlined the CMC Trip Leader Manual.

2. Scope and Terrain

Top Rope Climbing Leaders instruct on top access, single-pitch climbs that do not involve lead climbing. Climbs with non-technical access to the area above the climb are considered top access, but may require systems to manage risks associated with exposure or other hazards. Single-pitch climbs are those climbed without intermediate belays. Approaches and/or descents to these climbs do not include notable navigational, terrain, or technical challenges.

3. Training and Experience

Training. CMC Basic Anchors and Rescue 1 (or equivalent)

The CMC recognizes that there are many avenues to climbing education, such as informal mentorship, professional instruction, or volunteer peer-based instruction (via organizations like the CMC, Mountaineers, Mazamas, etc.). Candidates that meet these activity standards are encouraged to become Tech Trip Leaders, too.

Experience.

- Candidates have at least one year of climbing experience in a variety of terrain
- Candidates are confident climbing up to 5.6 and/or WI3 at the time of assessment.
- Candidates have climbed a minimum of thirty climbs; fifteen of these climbs are graded 5.6 and/or WI3 or harder.

Assessment: Candidates are evaluated by experienced CMC mentors according to these standards.

4. Skills and Knowledge

Top Rope Climbing Leaders are expected to demonstrate proficiency in executing and applying the skills and knowledge listed below.

Climbing Movement. When climbing, Leaders are fluid, effective, and efficient in onsighting top roping routes up to 5.4 and/or WI3 in difficulty. They are versed in climbing on a variety of rock and/or ice types and features.

Equipment. Leaders are knowledgeable about the variety of tools available to accomplish any relevant task, and their particular advantages and disadvantages. They appreciate the design, intended uses, and practical applications of each tool, and make selections and recommendations based on that knowledge. Equipment that Leaders are familiar with includes:

- fixed anchors (bolts, hangers, rappel rings, webbing, etc.)
- removable protection (cams, stoppers, tricams, etc.)
- ropes (i.e. static and dynamic)
- harnesses
- personal protective equipment (helmets, gloves, etc.)
- footwear
- hard goods (belay/rappel devices, carabiners, etc.)
- soft goods (slings, cord, tethers, etc.)

Leaders also display an understanding of non-climbing-specific outdoors equipment used on climbing outings. The Leader will, for example, choose an appropriate pack for any given excursion. The contents of this pack will vary based on the venue but may include emergency supplies (first aid kit, headlamp, etc.), human waste disposal kit, communication devices, navigational aids, additional food and layers, and other items.

Leaders ensure equipment is reasonably suitable for its intended use.

Rope Management, Knots, and Hitches. Leaders proficiently manage rope when working with one rope by keeping organized workspaces and managing the ends of the rope. Belay systems manage slack appropriately to secure climbers and mitigate fall consequences.

Leaders have a mastery of the knots and hitches most prevalent in instructing single-pitch top rope climbing:

| Knots | Hitches |
|--------------------------------|-----------|
| Overhand on a Bight | Clove |
| BHK | Autoblock |
| Flat Overhand | Prusik |
| Figure-Eight Follow-Through | Klemheist |
| Figure Eight on a Bight | Basket |
| Bowline | Girth |
| Bowline with a Bight | |
| Double Fisherman's | |

Barrel

Mule



Protection Systems and Anchor Building. Leaders are experienced in selecting, placing, evaluating, and instructing a variety of protection types (See “Equipment”) in a wide array of climbing environments. They understand the general principles behind an item’s construction and functionality and common mechanisms of failure.

Leaders have a practical understanding of protection principles, the nature of forces - both theoretical and real - affecting the climbing system, and techniques for building sufficient systems and safeguarding the integrity of those systems, including the use of double checks. Leaders appreciate how a variety of factors from rope drag and user error to weather conditions and rock type can affect the functionality of equipment and systems. They are prepared to anticipate and manage possible factors.

Leaders construct strong, secure, and simple anchors. They adjust their construction based on their knowledge of the many factors affecting climbing systems.

Belaying and Spotting. Leaders belay in a fundamentally sound manner. The principles of fundamentally sound belay mechanics are:

1. A brake hand must be maintained at all times.
2. Hand transitions should happen in the position of maximum friction.
3. The hands and limbs should be positioned ergonomically.

This is true whether they are belaying with a manual- or assisted-braking device. Leaders understand the need for vigilance, positioning, and the ability to anticipate changing belay needs.

Technical Descent. Leaders are knowledgeable about a variety of rappel and lowering set-up and back-up strategies. Leaders can assess and use relevant strategies based on the situation, including extensions, friction hitches, and back-up belays.

Rescue and Assistance Skills. Top Rope Climbing Leaders are familiar with both unweighted and weighted load transfer (e.g., belay takeovers), unweighted and weighted ascension, as well as rappelling and lowering modifications necessary for basic intervention in a counterweight system.

Climbing Communication. Leaders utilize climbing communication techniques that accommodate a variety of environments and situations, including effective verbal and non-verbal strategies.

Objective and Terrain Identification. Leaders are adept at identifying appropriate objectives and terrain. They are also aware of and manage environmental hazards, including altitude, lightning, water crossings, rock fall, exposure to elements and

precipices, and flora and fauna hazards. Leaders' familiarity with a variety of route selection tools (e.g. online resources, guidebooks, and peer input) enables them to find desired climbs and/or undocumented but climbable features.