

Rock Scrambling Activity Standard

Updated May 2025

Activity Description

Rock scrambling involves simple climbing, often with exposure, and is graded as Class 3 or Class 4 terrain according to the Yosemite Decimal System. The technical demands of scrambling lie above those of difficult off-trail hiking but below those of Class 5 climbing. As such, rope is often carried and occasionally used for safety reasons. There is no Class 5 scrambling - trips involving Class 5 climbing or climbs requiring gear placements for running belay or belay anchors require a leader approved for Class 5 climbs.

Difficulty Ratings

Rating	Description
Easy	Class 3 terrain with good holds, minimal exposure, and straightforward route finding
Moderate	Class 3 terrain with moderate exposure, may include short sections requiring careful movement
Challenging	Sustained Class 3 with significant exposure or brief Class 4 sections, good route finding skills required
Difficult	Mix of Class 3 and Class 4 terrain with substantial exposure, requires strong scrambling skills

Pace Rating

Rating	Description
Casual	Relaxed pace with frequent stops for instruction, photos, and rest. Suitable for beginners.
Moderate	Steady pace with regular breaks. Suitable for those with some scrambling experience.
Brisk	Consistent movement with minimal stops. For experienced scramblers with good fitness.

Fast	Rapid pace for highly experienced scramblers with excellent fitness and technical ability.
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Terrain Ratings

Rating	Description	Technical Level
Class 2+	Off-trail hiking on steep terrain, occasional handholds needed	Below scrambling level
Class 3	Steep terrain requiring use of hands for balance and upward progress, exposure possible but a fall would likely result in non-lethal injuries	Basic scrambling
Class 3+	Sustained Class 3 with moderate exposure, falls could cause injury	Intermediate scrambling
Class 4	Very steep terrain requiring extensive use of hands, technical moves, exposure that may result in serious or lethal injuries	Advanced scrambling
Class 4+	Extremely steep, highly exposed terrain at the boundary of technical climbing - not permitted on CMC trips or in class instruction	Not permitted

Definition: Classes

Rock scrambling activity is divided into two classes:

Class 3 Scrambling

- Involves terrain that may have exposure but where a fall would likely result in non-lethal injuries
- Requires occasional use of hands for balance
- Does not usually require specialized equipment such as harnesses or ropes
- Helmets may be necessary depending on objective hazards
- Requires basic navigation skills, route finding skills to avoid technical terrain and excessive exposure

Class 4 Scrambling

- Involves extensive use of hands for balance and progress
- May require occasional technical rock climbing moves (chimneying, smearing, hand jams)
- Potential serious consequences of a fall often make use of a rope desirable
- May be protected by use of rope, belays, hand lines, and natural protection and anchors
- Pitches requiring rope techniques are usually substantially less than a rope length and do not require placement of gear anchors or protection

Required Skills

Class 3 Scrambling Skills

1. **Navigation**
 - a. Map and compass or GPS navigation
 - b. Route finding to avoid technical terrain and excessive exposure
2. **Movement Techniques**
 - a. Basic movement requiring occasional use of hands for balance
 - b. Fluid and efficient movement on various rock types and features
 - c. Awareness of loose rock and ability to avoid it or avoid knocking it off
3. **Safety & Risk Management**
 - a. Backcountry emergency management
 - b. Weather forecasting
 - c. Avalanche awareness (for winter conditions)
 - d. Hydration and nutrition management
4. **Environmental Stewardship**
 - a. Leave No Trace principles
 - b. Backcountry ethics

Class 4 Scrambling Skills (in addition to Class 3 skills)

1. **Technical Skills**
 - a. Proper use and tie-in of a climbing harness
 - b. Belaying with a device, as well as hip and terrain belays
 - c. Constructing an anchor from natural features

- d. Using natural features for protection
 - e. Skills in building anchors
 - f. Proficiency with essential knots and hitches:
 - i. **Knots:** Overhand on a Bight, BHK, Flat Overhand, Figure-Eight Follow-Through, Figure Eight on a Bight, Bowline, Bowline with a Bight, Double Fisherman's, Barrel, Mule
 - ii. **Hitches:** Clove, Autoblock, Prusik, Klemheist, Basket, Girth
2. **Advanced Movement**
- a. Technical rock climbing moves such as chimneying, smearing and other foot techniques
 - b. Hand jams and other hand techniques
 - c. Snow travel techniques (for winter/alpine scrambling)
3. **Rescue Skills**
- a. Ability to assist participants on difficult sections
 - b. Basic rope assistance techniques
 - c. Ability to anticipate sections requiring assistance and preparation to provide it

Equipment Requirements

Class 3 Scrambling Equipment

- Appropriate footwear for rocky terrain
- Helmet (depending on route conditions)
- Navigation tools
- First aid kit
- Emergency supplies (headlamp, extra food, etc.)
- Weather-appropriate clothing
- Communication devices
- Human waste disposal kit

Class 4 Scrambling Equipment (in addition to Class 3 equipment)

- Rope (dynamic)
- Harness
- Climbing helmet
- At least two locking carabiners

- Webbing or cord for improvised harness (if needed)
- Belay/rappel devices
- Appropriate slings/cord for natural anchors
- Leaders ensure equipment is reasonably suitable for its intended use

Roles and Requirements

Role	Requirements	Responsibilities	Badges/Privileges
Participant	- Basic fitness for mountain terrain - Appropriate footwear and clothing - Ability to follow directions	- Follow leader instructions - Stay with the group - Communicate any issues or concerns	- None
Scrambling Leader	<ul style="list-style-type: none"> • Wilderness Trekking School • CMC Trip Leader School • WFA certification Completion of at least two comparable trips - Co-leading experience • Alpine Scrambling School Basic/Intermediate Rock Climbing encouraged Proficiency with rope systems (for Class 4) 	<ul style="list-style-type: none"> • Plan and execute safe scrambling trips • Assess participant abilities • Navigate and manage group • Handle emergencies • Teach scrambling skills Set up rope systems when needed • Manage technical terrain 	CMC Trip Leader

Mentor	Extensive experience as a Scrambling Leader Approved by the Scrambling Committee	<ul style="list-style-type: none"> • Evaluate leader candidates • Provide guidance to developing leaders • Help maintain program standards 	<ul style="list-style-type: none"> • Assess and certify leader candidates • Develop program curriculum
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Leadership Requirements

Scrambling Leader Requirements

- **Basic Requirements (for all Scrambling Leaders):**
 - Wilderness Trekking School
 - CMC Trip Leader School
 - WFA certification (must be maintained per guidelines in force at anytime)
 - Avalanche Awareness certification (for trips led under winter conditions)
 - Experience: Completion of at least two trips in each of the season(s) and terrain comparable to trips they wish to lead
 - Co-leading, assisting, or significant involvement in planning at least two of these trips
- **Class 3 Requirements:**
 - All basic requirements above
 - Demonstrated proficiency in Class 3 scrambling skills
 - Leaders routinely leading Class 3 trips are encouraged to develop the skills taught in Alpine Scrambling School
- **Class 4 Requirements (additional):**
 - Alpine Scrambling School
 - Basic or Intermediate Rock Climbing is encouraged
 - Demonstrated proficiency in rope management, belay techniques, and anchor construction
- **Note:** 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 Scrambling Trip Leaders.

Assessment Standards

Scrambling leader candidates are evaluated by experienced CMC mentors according to the following standards. Successful scrambling leader candidates shall demonstrate proficiency in executing, applying, and teaching the skills and knowledge listed below:

1. **Scrambling Movement:** Fluid, effective, and efficient movement on a variety of rock types and features; awareness of loose rock and ability to avoid it or avoid knocking it off; good technique on snow and ability to assess snow type and strength (for winter leaders); winter leaders must be adept at identifying and avoiding avalanche terrain.
2. **Equipment Knowledge:** Understanding of climbing tools, their design, intended uses, and applications; knowledgeable about the variety of tools available to accomplish relevant tasks and their advantages and disadvantages.
3. **Rope Management, Knots, and Hitches:** Proficiency in managing rope by keeping organized workspaces and managing rope ends; constructing belay systems that manage slack appropriately; building hand lines in appropriate locations and ensuring proper connection of scramblers; mastery of essential knots and hitches.
4. **Protection Systems and Anchor Building:** Ability to construct strong, secure, simple anchoring systems using natural features (e.g., blocks, horns, or trees); practical understanding of protection and anchoring principles, forces affecting climbing systems, and techniques for constructing sufficient systems.
5. **Belaying and Spotting:** Fundamentally sound belay mechanics including checks, closed systems, and proper hand positions; understanding of manual and assisted-braking devices, hip belays, and terrain belays; recognition of situations appropriate for spotting rather than belaying.
6. **Rescue and Assistance Skills:** Ability to anticipate sections requiring assistance and preparation to provide it; assessing participant skill levels and comfort with exposure; knowledge of harness attachment methods; ability to provide basic assistance like lowering or rope tugs (complex hauls and lowers are beyond scope).
7. **Climbing Communication:** Effective verbal and non-verbal communication strategies in various environments and situations.
8. **Objective and Terrain Identification:** Skill in identifying appropriate objectives and terrain; awareness and management of environmental hazards (altitude, lightning, water crossings, rock fall, exposure, flora and fauna); familiarity with route selection tools; route finding skills.

Notes and Special Considerations

1. Leaders must exercise good judgment when deciding whether to carry a rope on a scrambling trip, considering terrain difficulty, participant number and skill level, weather, and other factors that may influence the need for assistance or protection from falling.
2. Leaders leading trips with substantial sections of Class 4 climbing, such as Freeway on the Second Flatiron, are required at minimum to carry a rope, two locking carabiners, and be proficient in constructing improvised harnesses and natural anchors to protect participants.
3. Trips involving Class 5 climbing or requiring gear placements for running belay or belay anchors require a leader approved for Class 5 climbs.
4. Winter leaders must be adept at identifying and avoiding avalanche terrain.
5. For Class 4 terrain, the pitches requiring use of rope techniques are usually substantially less than a rope length and do not require placement of gear anchors or protection.
6. Class 3 terrain may involve exposure but a fall would likely result in non-lethal injuries, while Class 4 involves exposure that may result in serious or lethal injuries.
7. For advanced scrambling, consideration should be given to including firemen rappel skills as sometimes needed in emergency situations.