

Basic Lecture 3

Alpine Rock Climbing

March 2nd 2023

Agenda:

- Alpine Rock Climbing Fundamentals
- Q & A
- Case Study: The Tooth
- Q & A



Liberty Bell,
North Cascade NP

*What is an
alpine rock climb?

*In the chat,
respond how you would define an alpine rock climb.

Learning Objectives for Basic Lecture 3

1. Understand the **differences** between gym, sport, crag, and alpine rock climbing.
2. Understand the **fundamentals** of alpine rock climbing.
3. Understand the **mechanics** of an alpine rock climb (from sign up to celebration).
4. Discuss what constitutes “**a successful trip.**”

Framework for Lecture 3

For *some* questions, you will discuss the question as a group.

- 1.** Introduce yourself, share your favorite summit snack
- 2.** Discuss the question, everyone contributes, everyone listens

*Engage, share, learn.

Everyone should participate in every question to the best of their ability!

Question 1 (4 minutes)

**Gym, Sport,
Crag/Trad or
Alpine?**

Create a list of the *characteristics* between gym, sport, crag, and alpine climbing.

Type of climbing	Characteristics
Gym	
Sport	
Crag/Trad	
Alpine	

*** In the chat, share something that your group discussed.**

Question 1

Gym, Sport,
Crag/Trad or
Alpine?

Create a list of the *characteristics* between gym, sport, crag, and alpine climbing.

Type of climbing	Characteristics
Gym	<ul style="list-style-type: none">-Good for strength building-Top rope or lead climbing-Safest form of climbing-Least risk
Sport	<ul style="list-style-type: none">-Good way to practice climbing technique-Don't need a lot of gear-More risk
Crag/Trad	<ul style="list-style-type: none">-Good way to practice techniques for alpine climbs-More risk
Alpine	<ul style="list-style-type: none">-Best views!-Most remote-Wide range of skills needed-Most risk involved

Know your Equipment

The rope symbolizes climbing and the climber's dependence on another person.



Question 2

Know your Equipment

What are the 2 main parts
of a rope?



Question 2

Know your Equipment

Sheath

Core



Question 3 (4 minutes)

Know your Equipment

In your group, discuss the required equipment necessary for most alpine rock climbs.

*** In the chat, share something that your group discussed.**

Question 3



10
Essentials

Equipment necessary for most alpine rock climbs.

Know your Equipment

There is no steadfast rule.

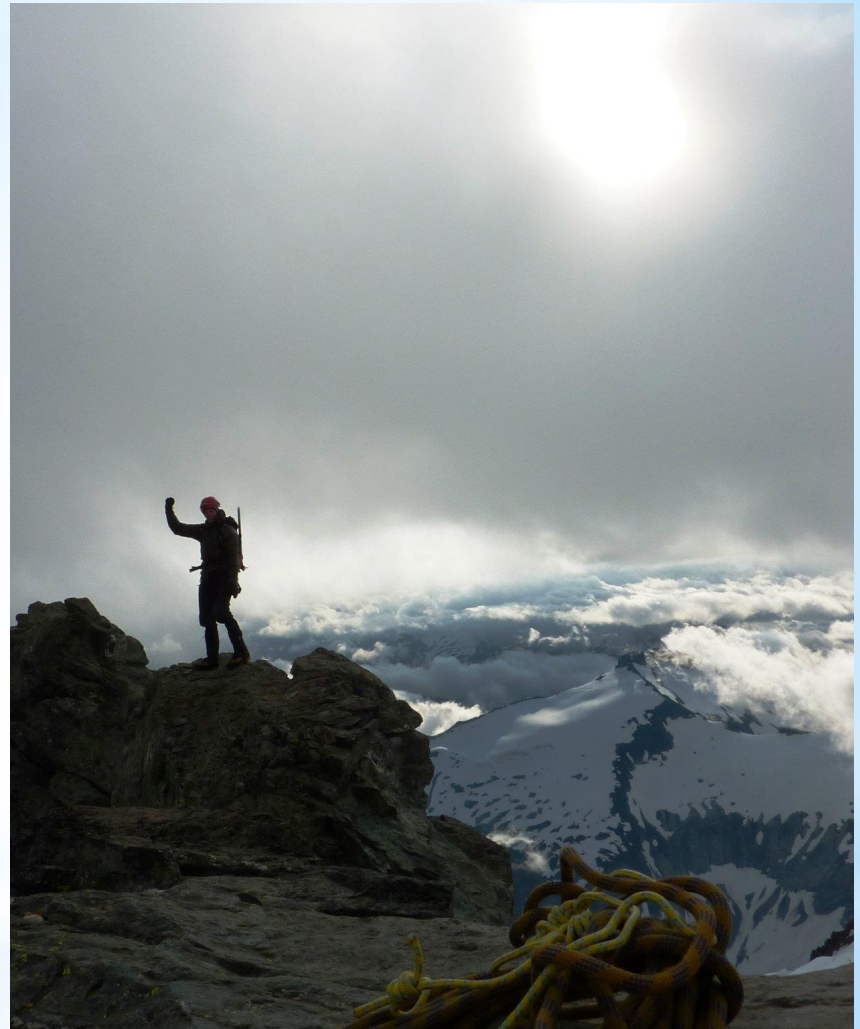
Make the decision based on individual skill, experience, and assessment of conditions.

What other equipment or clothing should you bring for the climb?

Alpine Rock Climbing Fundamentals

Alpine rock climbing can range from moderate routes only a few hours from the trailhead to multiday climbs in remote settings.

~Freedom of the Hills



View from summit of Mt. Shuksan, WA

What happens on an alpine rock climb?



Before
During
After


View of Mt. Stuart
from summit of Ingalls Peak, WA

Before the Climb

- Sign up
- The Plan
- Leader's responsibility
- Your responsibility



The Tetons, WY

 **As you plan for a climb, what should you consider?**

In the chat, share something that your group discussed.

* As you plan for a climb, what should you consider?



- * Gear
- * Food
- * Conditioning / Pace
- * Weather / Avalanche forecast
- * Route / Grade of climb
- * Teams
- * Turn around time
- * Emergency contact info

During the Climb

- Approach & Route Description
- Hazards
- Rope Teams
- Cleaning gear
- Anchors



Dorado Needle, WA

Question 4 (4 minutes)

Terrain Considerations & Hazards

As a group, *discuss the hazards that may give you grief during an alpine rock climb?*

*** In the chat, share something that your group discussed.**

Question 4

Terrain Considerations & Hazards

What's going to give you grief?

- * Unmaintained trails
- * Stream crossings
- * Steep snow gullies
- * Moats
- * Wildlife
- * Rockfall
- * People

* Party inflicted rock fall



During the climb...

You are either on belay or attached to the anchor.



Icicle Canyon, WA

Rope Teams

✧ Three-person team

✧ Two-person team



Black Peak, WA

“Following”

Make sure to:

- *Have a nut tool*
- *Keep gear attached to rope*
- *Rack efficiently*





Anchors.

**You never know
what you are
going to get.**

Anchors that you might clip into are made of...



- 1) Live trees
- 2) Bolts
- 3) Gear
- 4) Boulders or rock horns

Attached to the rock of Ingalls via bolts on the second pitch.

Question 5

Know your knots

What are the 2 main knots that climbers use to attach themselves to the anchor?



Question 5

Know your knots

Attach to the anchor with:

- *Clove hitch*
- *Figure-8 on a bight*



Remember,
while climbing...

You are either on belay or attached to the anchor.



Icicle Canyon, WA

Although the leader in some ways incurs additional risk while “on the sharp end of the rope,” the belayer and leader both play a critical role in making each pitch safe and successful.

~Freedom of the Hills



Summit of Sahale Peak, WA

After the Climb (Post Summit)

- Getting down
- Back to the TH
- Celebrating & Sharing



Rappelling from the summit of
Mt. Something Awesome, WA.

* Questions?

Ask in the chat or unmute.

* Q & A

*** Have you been on an
alpine rock climb?**

***submit your answer via the chat**

What happens on an alpine rock climb?

Case Study: The Tooth, WA

Getting there

The Tooth - Snoqualmie Pass

Take I90 to the West Summit Exit for Snoqualmie Pass. Turn right towards the Snoqualmie Pass ski resort (lots of signs), then park at the end lot (if you have a parking pass) or the lot before that.

Hike up the main trail, until a sign designating the start of the Source Lake Overlook trail. Take this trail, which avoids losing elevation, to the valley to the south below the east face of The Tooth. There is a good climbers path with cairns to guide you.

The final approach involves scrambling up to the notch one south of Pineapple Pass then contouring around clockwise to get to the start of the climb. A direct scramble up to Pineapple Pass is not recommended, as this is the rappel route. The final portion of the contour around involves some class 3 to 4 scrambling, but it is short and unexposed. Some parties have elected to do a running belay here, but it is not necessary.





On trail

Off trail

Walking on the trail towards the Tooth





Walking up towards Pineapple Pass



Kicking steps up steep, hard snow



Looking down from Pineapple Pass

Route description

The Tooth - Snoqualmie Pass

From Pineapple Pass, start the route about 20 feet up at the first vertical crack with good pro for a directional. Climb cracks and slabs with lots of big holds making your way directly up the center of the face. Use slings to reduce rope drag. If you keep going until about 170 feet up, there is a really nice ledge with a large tree to belay from. From here, the summit can be reached with a long 190 foot pitch on moderate terrain. The finish is via ledges on the west side of the south face.

Note: There are numerous places to belay on this face. Long pitches as described above, are not necessary.

The rappel down can be done with one or two ropes. 4 raps with one rope, 2 with twin ropes. The rappel is on the east side of the south face. From the bottom, rappel off the east side of Pineapple Pass, down to the talus fields with one 60 meter rap, or 2 30 meters.

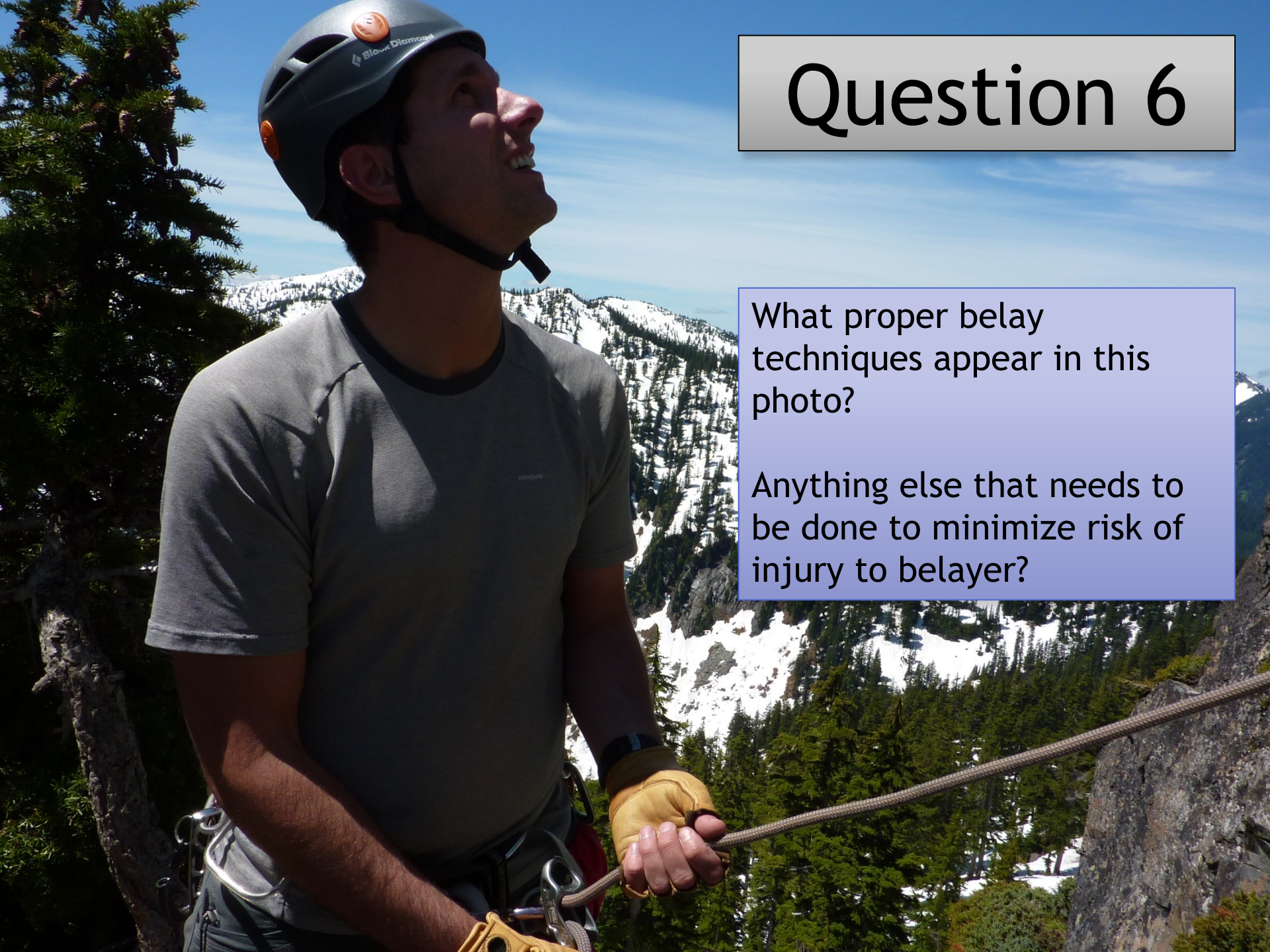




First pitch of the Tooth

Belaying in the alpine:
Serious business





Question 6

What proper belay techniques appear in this photo?

Anything else that needs to be done to minimize risk of injury to belayer?

A man wearing a grey helmet with an orange logo, a grey t-shirt, and yellow climbing gloves is looking upwards and to the right. He is holding a rope. The background shows a mountain range with snow patches under a blue sky with light clouds. A pine tree is visible on the left side of the frame.

Question 6

Proper belay techniques

- Helmet on snugly
- Looking at lead climber
- Hands in good position
- Gloves on
- Attached to anchor
- Proper amount of slack
- Aware of potential rockfall



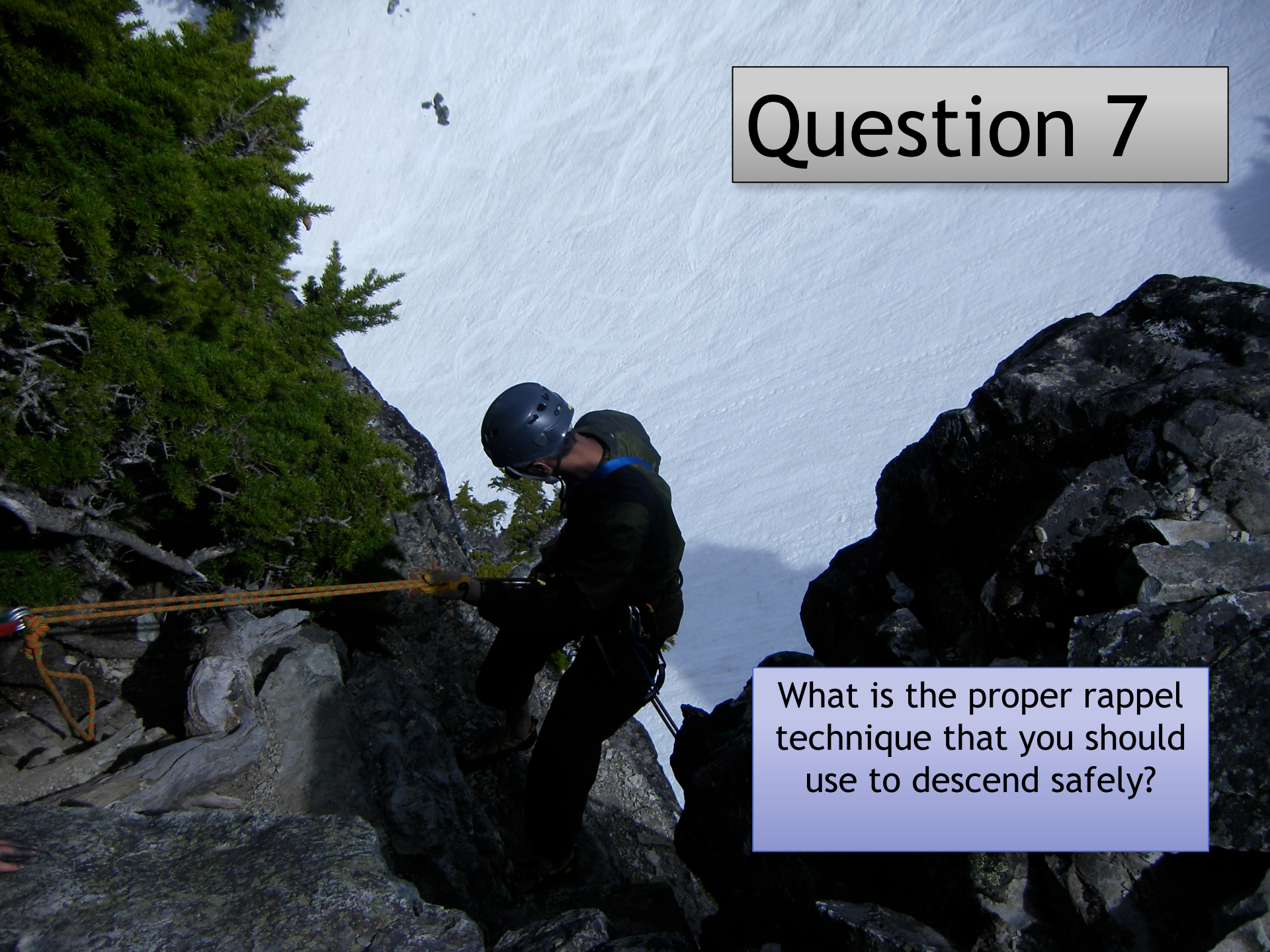
*Celebrate at the Summit

...but remember, you are only half done!

Rappelling in the alpine
is serious business!

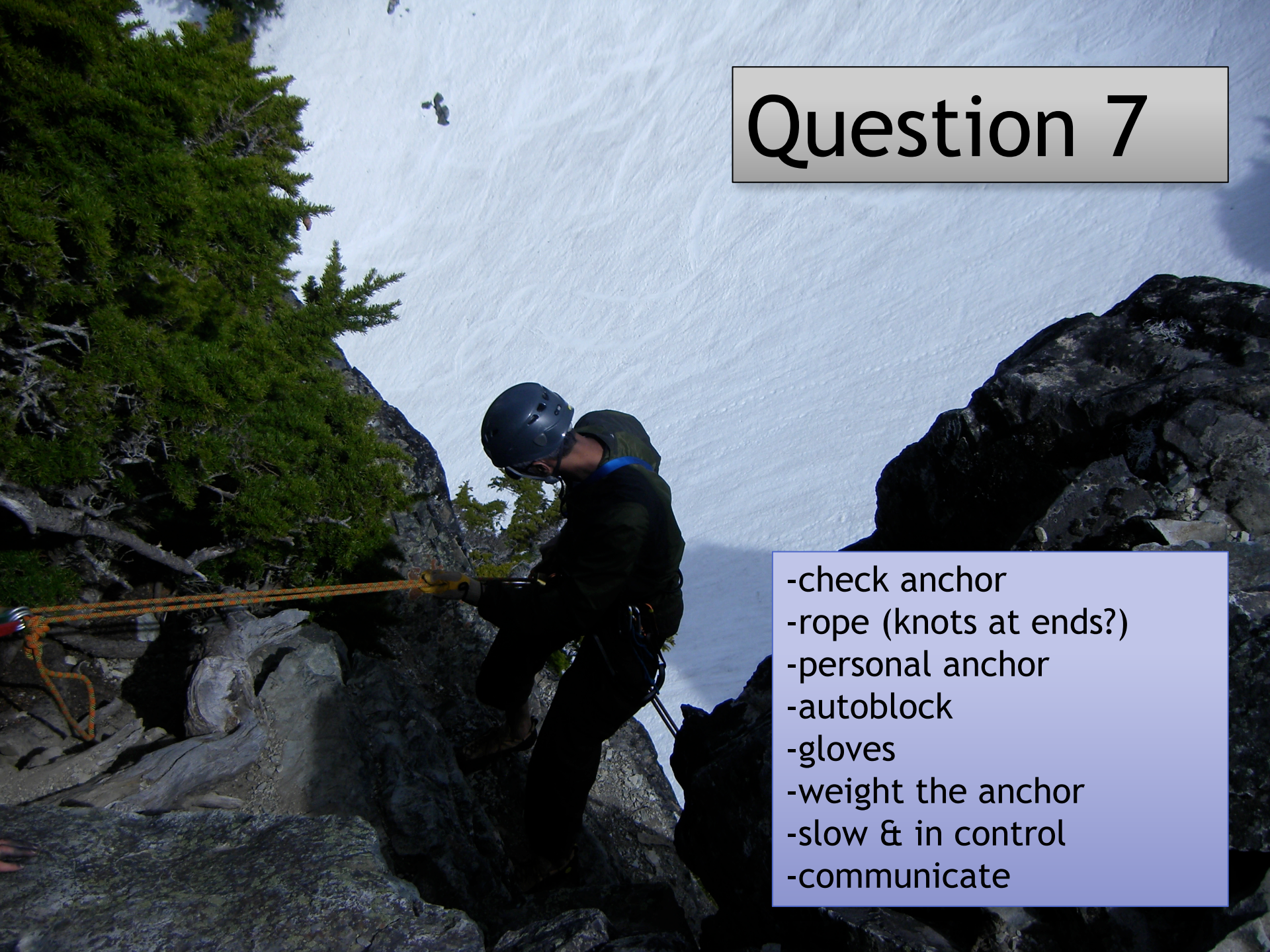


Question 7



What is the proper rappel technique that you should use to descend safely?

Question 7

- 
- check anchor
 - rope (knots at ends?)
 - personal anchor
 - autoblock
 - gloves
 - weight the anchor
 - slow & in control
 - communicate



* Down-climbing

* Scrambling

* Hiking out

* Getting back to the TH

*What constitutes a
successful trip?

Decide what constitutes a successful trip
and submit your answer in the chat.

Thank you for your participation.

Climb on!

Questions?

Ingalls Peak, WA