Sourdough Crampons: The History of Climbing Denali

Essential Question: How do people interact with Denali, historically and today?

Suggested Activities

Analyze an Object
Time: 20-30 minutes
Materials: Pictures of Sourdough crampons, paper, pencils, Sourdough Crampons handout
Directions:
- Show pictures of the Sourdough crampons and ask students to draw a picture or write a physical description of the objects.
- Have students brainstorm questions they have about the crampons. This can be done individually, in small groups, or as a class.
  - See the Thirteen Questions To Ask An Object handout for examples.
- Share background information on the crampons and Sourdough Expedition (see handout). Ask students which questions of theirs were answered, and what other questions they have after learning more about the object.

Alaska Anchor Standards English Language Arts, Reading: 1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking.

Compare and Contrast
Time: 15-30 minutes
Materials: Pictures of Sourdough crampons and contemporary crampons, pair of commercially-available crampons (if available)
Directions:
- Look at pictures of the Sourdough crampons and crampons used today. If you have a pair of crampons available, have students handle them and try them on.
- Make a list of similarities and differences between the two pairs of crampons. This can be done individually or as a group.
- Ask students to consider what the crampons reveal about how the experience of climbing Denali has changed since 1910.

Alaska Science Content Standards: SE. Students develop an understanding of the relationships among science, technology, and society.
Alaska History Content Standards: A. A student should understand that history is a record of human experiences that links the past to the present and the future.

Make Your Own Crampons
Time: 30-45 minutes
Materials: Pictures of Sourdough crampons and contemporary crampons, variety of craft materials (pipecleaners, popsicle sticks, foil, wooden dowels, felt pieces, string, wire, etc),
Directions:
- Look at pictures of the Sourdough crampons and contemporary crampons. Brainstorm how they could construct their own crampon models.
- Introduce the Engineering Design Process of ask, imagine, plan, create, and improve (see handout). Use the process to guide student progress.
- Have students make their own crampon models out of craft materials.
  - Optional: Students can draw pictures of their crampon designs before constructing them. Older students may want a wider variety of craft supplies.
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- Ask students why they think members of the Sourdough Expedition made their own crampons. What are the advantages and disadvantages of making your equipment?

**Alaska Science Content Standards:** SA. Students develop an understanding of the processes and applications of scientific inquiry.

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**Journal Entries**

**Time:** 30 minutes

**Materials:** Paper, pencils, *Sourdough Expedition* handout (optional)

**Directions:**

- Write a journal entry from the point of view of a member of the Sourdough Expedition as they are climbing Denali. Suggested prompts include: Why are you climbing the mountain? What is the weather like? What kind of supplies do you have? How do you feel (hungry, cold, excited, homesick, etc.)? What will you do after the expedition?
  - Optional: Use the *Sourdough Expedition* handout to give students more information on the expedition.
  - Younger students can draw a picture of the expedition instead of writing an entry.
- Have students share their journal entries with partners or the class.

**Alaska Anchor Standards English Language Arts, Writing:** 3. Use narrative writing to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.

**Alaska History Content Standards:** A. A student should understand that history is a record of human experiences that links the past to the present and the future.

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**Prepare For Your Expedition**

**Time:** 30-45 minutes

**Materials:** Prepare For Your Expedition Handout, Photos of mountain climbing equipment (use the included cards or find your own)

**Directions:**

- Divide students into groups. Tell them they are members of an expedition planning to climb Denali. They need to make a list of all the equipment and supplies they need to take with them. Remind them to consider the weight of each item, how much safety equipment they need, and the weather forecast.
  - For younger students, provide pictures of items to choose from.
  - Extension: One group is climbing Denali in the year 1910. Another group is climbing Denali in the present day. How are their lists similar and different?
- Have each group present their list to the class.
- Ask students to reflect on what they have learned about the history of climbing Denali.

**Alaska Anchor Standards English Language Arts, Speaking and Listening:** 1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others’ ideas and expressing their own clearly and persuasively.