Lesson Title: Alaskan Animal Adaptations
Adapted from Animal Adaptation (http://www.learnnc.org/lp/pages/2852?ref=search )
Reindeer Adaptations lesson 2

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Concept Objective: Understand how animals native to Alaska adapt using body structures and behavior, to the changing and harsh conditions of the habitat.

Time: 5- 50 minute sessions

Setting: Indoor

Activities:
Day 1: organizing basic needs for living things
Day 2: KWL chart about animals in the Arctic
    Venn diagram comparing
    and contrasting animals on the chart.
Day 3: Read Animals in the Winter by Henrietta Bancroft
Day 4: Play matching game
    Label parts and adaptations of reindeer/caribou
Day 5: Visit from Reindeer Research

Materials Needed:
Day 1: Large Post-it of biotic factors/abiotic factors
Day 2: KWL chart
    Post-it’s for each group
    Large Post-it of a Venn diagram
Day 3: Animals in the Winter by Henrietta Bancroft
    Forest Explore: A Life-Sized Field Guide by Nic Bishop (6 copies)
    KWL chart from previous day
Day 4: Large Post-it of a Venn diagram
    Label the Reindeer sheet
    Reindeer and Caribou Fact Sheet
    Adaptation Matching Game
Day 5: Questions created by the students
**Procedure:**

**Day 1:**
1. Go over abiotic (non-living)/biotic factors (living) and the basic needs of living things.
2. After discussing the two types of factors and listing them on the board have students come up with ways that different animals use these factors to survive in the vastly changing Alaskan environment.
3. Next to each of the listed factors have students come up and write one way each of the listed factors contributes to survival.

**Day 2:**
1. KWL chart of what students know and want to know about animals in Alaska. Refer to the different types of animals that we see/hunt around our area.
2. Compare the animals. How are they the same? How are they different? Have students work in partners/groups to create post-its for a Venn diagram that compare and contrast two of the listed animals.
3. Have students share their comparisons. Discuss if there is anything that stood out during the discussion.

**Day 3:**
1. Read Animals in the Winter to the class. After reading have students discuss with their shoulder partner one way that an animal adapts for the winter.
2. Go back to the KWL chart of animals in Alaska. Have students talk to their face partner about the animals listed and discuss if any of them have special adaptations to help them for the winter.
3. As a class share the animals that were discussed with their partner. What if any adaptations do they know about? How do
those adaptations help those animals survive the winter in Alaska?

4. In table groups have students go through Forest Explore: A Life-Sized Field Guide. They will pick at least 3 animals to research in the book to discover how the animals survive the winter season.

Day 4:

1. Read about real reindeer from Reindeer Roundup!-Reindeer Information Sheet. Separate into small groups to read and highlight information.

2. After reading have the students fill out the Label the Reindeer sheet with their small group.

3. On the life size reindeer have students label parts of the reindeer.

4. As a class go over the sheet to discuss the different parts of the reindeer. Have students predict what/if any parts work as an adaptation for survival.

5. Have the students discuss if these are abiotic/biotic factors.

6. Look at Reindeer and Caribou Fact Sheet. Create a Venn diagram. Discuss similarities and differences and put one on each post-it. What would cause the differences? Post on the Venn diagram.

7. Play matching game of body part and adaptation. Students lay all cards down and take turns turning over two cards at a time to see if they are a match. When the body part and adaptation match, the student gets to keep the cards. The winner is the one with the most cards.

8. **HOMEWORK:** Create 5 questions that you would like to ask the reindeer expert. Be prepared to ask them tomorrow and answer any questions (there’s going to be a few that will ask the same question as you).

Day 5:

1. Visit from Reindeer Research with Roger where students learn more about the various ways that reindeers adapt to survive the climate of Alaska.
Information:

Any living organism; plant, animal, or otherwise must adapt to survive. It’s no different here in Alaska, if anything it’s even more vital for animals to adapt. Two key animals we see this in are reindeers and caribou. Many people see these two animals as the same, when in reality they’re not.