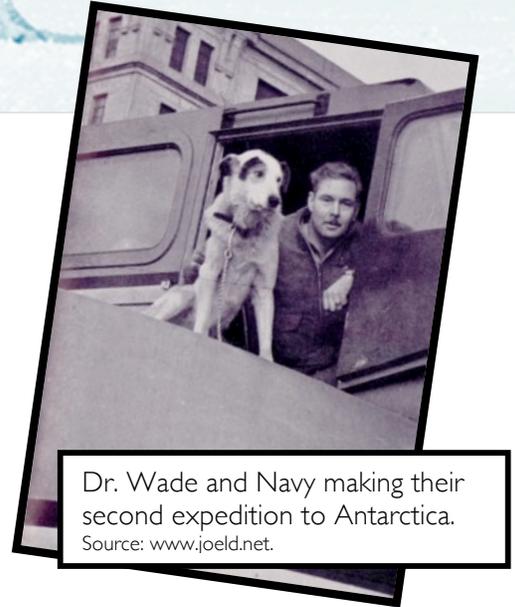




Sled Dogs and their Polar Adventures

Sled dogs not only helped scientists and explorers travel across the harsh, cold climate of Antarctica in the early 1900s, but were friends and companions to them as well. Dr. F. Alton Wade, a senior scientist for Admiral Byrd's Antarctic exploration, thought that Navy was the best and greatest dog ever. Admiral Byrd gave Navy to Dr. Wade after the second Byrd expedition.



Dr. Wade and Navy making their second expedition to Antarctica.
Source: www.joeld.net.

In this lesson, students will learn the importance of sled dogs to Antarctic expeditions. To learn more about Admiral Byrd and Dr. Alton Wade's Antarctic expedition and adventure, visit the exhibit *Antarctica – Pioneering American Explorations of the Frozen Continent* at the Museum of Texas Tech University open January 30th to December 20th.

Objectives

The students will be able to:

- Identify key facts about dog sledding as part of Antarctic exploration
- Identify the positions on a sled dog team, each dog's job and the traits that make a dog work well in that position
- Use creative thinking skills to design a unique sled and create a three-dimensional sculpture of the sled and what pulls the sled

Age Group

Early Elementary (1st – 3rd grade)

TEKS

113.13 4b, 13c, 19a

117.8 2.1a, 2.2a

Materials

- Computer/projector to show video from website
- Children's book Dogteam by Gary Paulsen
- National Park Service, *The Science of Sled Dogs* – Denali Sled Dogs Teacher Guide and Student Post-Activity (Copies of the handouts needed are on pages 5-7 of this lesson. If you would like to view the entire lesson and resources visit <http://www.nps.gov/dena/forteachers/learning/sled-dogs.htm>)
- 10 ft. rope or string
- Cardboard
- Pre-cut foam shapes
- Pipe cleaners
- Beads
- Construction paper
- Glue
- Scissors
- Model Magic in white
- Markers

Preparation

- Print and cut out the name tags from the "Sled Dog Position Name Tags" sheet. Hole-punch at the top and tie string to the tags.
- Print copies of *The Science of Sled Dogs* Pre-Activity and Post-Activity page

Lesson

Let's Travel to Antarctica!

- Explain to students that today they will be taking a trip to the South Pole. Using a globe, ask students to find the South Pole. Ask students, "What is located there?" Tell students that the continent Antarctica is located at bottom of the globe.
- Provide students with an understanding of what Antarctica is like by showing the video clip "Antarctica" at watchknowlearn.org. Website link: <http://www.watchknowlearn.org/Video.aspx?VideoID=19735&CategoryID=2482>
- Ask students to imagine what it would be like in that environment. How would it feel? What would you do? What would you eat? How would you travel?
- Explain to students the importance of sled dogs in polar explorations. Dog sleds were important for transportation in arctic areas, hauling supplies in areas that were inaccessible by other methods. They were used in explorations of the North Pole and South Pole. The first Arctic explorers used sled dogs to travel on the ice, and due to their success Antarctic explorers like Admiral Byrd and Dr. Alton Wade used them as well. Sled dog teams are used in rural communities in Alaska and northern Canada to deliver mail and supplies. They are also used for sporting events known as dog sled races such as the Iditarod and the Yukon Quest.
- Read the story Dogteam by Gary Paulsen (or have students read the story on their own depending on the age level). Ask students to identify three new and interesting things they learned about sled dogs from the story.

The Making of a Sled Dog Team

- Use the Pre-Activity and Post-Activity from the National Park Service *The Science of Sled Dogs* program resources to teach students about the dogs and their jobs on a sled dog team. Use the “Positions on a Sled Dog Team – Teacher Key” for background information on each position. Identify the four team positions: lead dog, swing dogs, team dogs, and wheel dogs. Using a 10-foot rope or string, call on students to come up and stand in the dog team positions. Place the correct “Sled Dog Position Name Tags” around student necks as they come up to join the team. After you discuss the positions and traits of each position, let the team take a trip around the room!
- Have students create their very own sled dog team. Pass out the “Post- activity: Build a Denali Sled Dog Team – Student Worksheets.” Have students choose dogs for their teams based on the trait descriptions. After choosing, they need to cut the dogs’ pictures out and glue them into the correct circle on their Pre-Activity Worksheet.
- Encourage students to imagine taking their own sled dog expedition to Antarctica. Ask students to think about the following questions: What would they bring? What would they wear? What would they eat?

Design a Sled - Art-making

- Intro: Ask students to think about how a sled works. What is it made out of? How does it move? What makes it move fast? Show students images of the explorers with their sleds, dogs and gear.
- Students will design and build a three-dimensional model of their own sled using a variety of materials - pipe cleaners, cardboard shapes, foam pieces, beads, markers, etc. How will they make their sled look? How will their sled move?
- Explain to students that sled dogs are no longer allowed in Antarctica because of concern that they would disrupt the wildlife or make the seals sick.
- Have students use their imaginations and determine what will pull their sled – an animal, dinosaur, creature, etc.
- Students will sculpt what pulls their sled using Model Magic. Let the sculpture dry for 24 hours.
- Students will use markers to add color and details to their figure.



Adaptations

- For older students: Students choose a book to read about Antarctica, Polar exploration and sled dogs and share information with the rest of the class in a visual report. Possible classroom resources include: *Big-Enough Anna: The Little Sled Dog that Braved the Arctic* by Pam Flowers, *Dogs of the Vastness* by Ben Brown, *You Wouldn't Want to Be on Shackleton's Polar Expedition* by Jenn Green, *Dogteam* by Gary Paulsen, *Byrd and Igloo, a Polar Adventure* by Samantha Seiple, and *Mush! A Beginner's Manual to Sled Dog Training* by Charlene LaBelle.
- Students write a story about Antarctica from the perspective of a sled dog. Encourage students to think of as many details as possible, particularly sensory details – how does the air feel, what do they smell, what sounds do they hear, etc.
- For younger students: *We're Going on a Sled Ride! Activity* Have students sit in a circle and sing the song, "We're Going on a Sled Ride" to the tune of "We're Going on a Bear Hunt". Going around, each student will make up a line such as "We're moving so fast" or "Look! There's a penguin!" Everyone will repeat the line before moving to the next student.

Lesson created by Kelly Chandrapal

Science of Sled Dogs – Appendix B

Pre-activity: Sled Dog Position Name Tags

Lead Dog

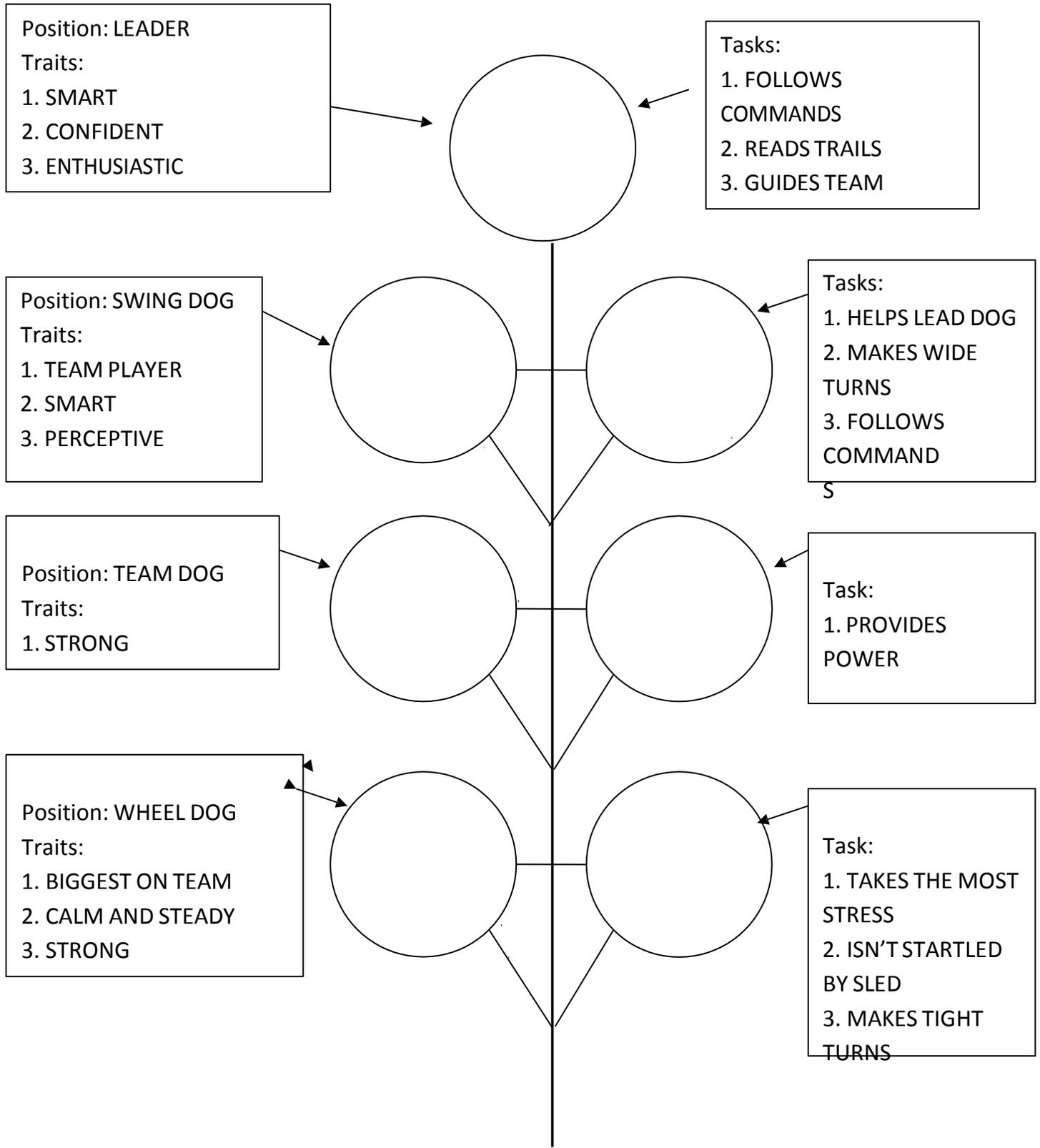
Swing Dog

Team Dog

Wheel Dog

Science of Sled Dogs – Appendix A

Pre/Post activity: Positions on a Sled Dog Team – Teacher Key



Denali

National Park Service
U.S. Department of the Interior

Denali National Park and Preserve, Alaska



Science of Sled Dogs

Post-activity: Build a Denali Sled Dog Team – Student Worksheet

Decide which canine ranger is the best fit for each position on your dog team. Cut out their faces and paste them onto your pre-activity worksheet.



I am smart and can read trails!



I help provide power to the dog team!



I am calm and steady.



I am confident and reliable.



I like to help the lead dog!



I like to make tight turns.



I like to guide my team home.



I am a team player!



I am the biggest dog at the kennel!



I am strong and powerful!



I like to make wide turns!



I am strong!