

Lesson Plan Title

Jack Frost

Developed by: Terrie Hanke 2006 TOT™

Discipline: Health & Safety

Topic: Emergency Care - Frostbite

Grade Level: Upper Elementary or Middle School

Resources / References / Materials Teacher Needs:

Worksheets provided; Knowledge of First Aid / Survival Skills; First Aid text from American Red Cross or like source; Frostbite information from www.webmd.com and www.mayoclinic.com; *Iditarod Classics* by Lew Freedman

Lesson Summary: Using the Iditarod as a theme, students will explore First Aid. This particular lesson focuses on frostbite – recognizing, caring for and preventing. Students will do guided research on the topic using the suggested websites. Once familiar with strategies for care and prevention, students will address two Iditarod related application problems.

Standard's Addressed: McREL (Mid-continent Research for Education and Learning)

Health Std 5) Knows essential concepts and practices concerning injury prevention and safety.

Language Arts Standard 1) Uses the general skills and strategies of the writing process.

Language Arts Standard 8) Uses listening and speaking strategies for different purposes.

Learning objectives: Students will

- 1) understand how frostbite occurs.
- 2) know how to prevent frostbite.
- 3) know how to treat frostbite including what to do and what not to do.

Assessment:

Written -

- 1) Complete guided study exercise with 90% accuracy.
- 2) Complete application problems with 100% accuracy.

Discussion

Procedural Activities: Check the weather tab at www.iditarod.com to see how cold it is in the checkpoint along the Iditarod Trail. This is a great interactive sight with a map of the trail that provides temperature and wind speed information for each checkpoint. Ask students to write or verbally describe what cold feels like. List health concerns associated with cold weather and cold exposure. Focus on issues Iditarod mushers might face as they travel from Anchorage to Nome. Frostbite would certainly be a concern. Before completing the worksheet and application problems, ask the students to write the word "FROSTBITE" on a sheet of paper and then list the 5 words that come to mind (pre-activity perception). Set this sheet aside for later use. Using the suggested web sites or other similar sites, complete the worksheet. Discuss the questions to check for understanding. Having acquired knowledge and understanding of how to prevent, recognize and treat frostbite, have the students complete the **Doug Swingley** application problem. Share answers and ideas through class discussion. Next, ask students to read the info-sheet about dogs and frostbite. If time permits, ask students to research or verify the information presented in the info-sheet. Complete the application problem. Again, share answers by discussing the problem. Finally, return to the sheet of paper with Frostbite and the 5 words. Have the students evaluate their initial perception as to accuracy and fact. Discuss how the students' perception or perspective changed or become more accurate as a result of this activity. Ask the students, "With regard to frostbite, what are the advantages of advancing from your original level of perception."

Materials Students Need:

Internet access for research [www.webmd.com] [www.mayoclinic.com] [www.iditarod.com/weather]

Worksheet – Frostbite

Worksheet – Frostbite Application Problems

Info-sheet – How Can Dogs Walk Around in Snow and Subzero Weather Without Getting Frostbite on Their Feet?

Technology Utilized to Enhance Learning:

Web research on frostbite; Interactive weather information at www.iditarod.com; Archive search on Doug Swingley's frozen corneas in 2004; Web product search.

Other Information: A colleague who teaches Language Arts has come up with an unusual activity for descriptive writing. His topic is "COLD." When it gets somewhere near freezing, he takes the kids outside with coats in hand. While outside without their coats on, they try to put into words what cold feels like. Writing activity continues inside.

Modifications for special learners/ Enrichment Opportunities:

1. Role play the proper treatment for frostbite. Create posters including prevention, recognition and care.
2. Research and recommend the best types of mittens, gloves, boots, socks and face, eye and head coverings for outdoor activities in cold climates to prevent frostbite.
3. Dress a musher with the idea of preventing frostbite in the extreme conditions experienced during Iditarod.

Notes: