

Title: <p style="text-align: center;">Moose on the Loose</p>	
Developed by: Jane Blaile 2008 Wells Fargo Teacher on the Trail	
Discipline/Subject: math and science	
Topic: moose and their body structure and size	
Grade Level: 5-8	
Resources/References/Materials Teacher Needs: moose measurements from various resources	
Lesson Summary: Students will use data on moose measurements to construct a life-sized moose through researching, designing a model, and building it.	
Standards Addressed: national standards: NSS.5-8.3 Students should develop an understanding of diversity and adaptations in organisms Alaska state standards: M10.4.1 [9] The student demonstrates the ability to apply mathematical skills and processes across the content strands by using real-world contexts such as science SC1.1 The student demonstrates an understanding of how science explains changes in life forms over time, including genetics, heredity, the process of natural selection, and biological evolution by showing the relationships between physical characteristics of Alaskan organisms and the environment in which they live Arizona state standards: M07-S4C4-08 compare estimated to actual lengths based on scale drawings or maps M06-S4C4-11 determine the actual measure of objects using a scale drawing or map SCIO3-S4C4-01 identify adaptations of plants and animals that allow them to live in specific environments	
Learning Objectives: The students will: <ul style="list-style-type: none"> ○ complete a moose and body part measurements diagram (analysis) ○ build an assigned moose body part (synthesis) ○ help assemble individual parts into a whole model (knowledge) ○ label the model body parts and measurements (knowledge) 	Method of Assessment for Learning: accurately completed diagram, correct size model body part, labels complete
Procedural Activities: 1. Have students research moose to find out anything they can about the size of a full grown moose. 2. The students will then enter the data into an Excel spreadsheet table. 3. Using scale to increase a moose diagram to full-sized, students measure individual body parts on the diagram to find the measurements for the part they'll make. 4. Make body parts by crumpling up newspaper and wrapping masking tape around it to "sculpt" the part. Bigger body parts may require the students to investigate other materials with which to build. 5. Spray paint the parts. 6. Assemble the parts.	
Materials Students Need: moose diagram and body measurement information, masking tape, newspaper, spray paint	
Technology Used to Enhance Learning: Excel software	
Other Information: Available moose measurements are for very few body parts. I have been in contact with the Alaska Fish and Game Department 2 years to try to gather more specific information so the moose will be very accurate, but records for a moose "blueprint" are hard to come by. Older students can use a picture of a moose and use scale and enlarge it proportionately to a full-size moose diagram.	

Modifications for Special Learners/Enrichment Opportunities:

As an extension, have students prepare "Moose Talks", a short speech about moose information. Then have them host these talks for other students around the model moose they built.

Challenge the students to design their model with movable body parts (joints) or to even motorized body parts. Hold a school wide moose trivia contest.