Lesson 3 - The Old Barn Station

LEARNING OBJECTIVES:

1. Students will determine the length, width, and two heights of the barn. Using the measurements, students will determine the area of the barn's floor and volume of the middle and lower sections of the barn.

NYS Standards: **MST 1,3**

SKILLS and CONCEPTS

- Measuring distances
- Use formula to calculate area
- Use formula to calculate volume

Procedure:

1. Students will measure plane dimensions of length, width, and height of barn to determine the area and volume of the middle and lower part of the barn.

Resources Required:

tape measure, calculator, pencil, barn, journal (clipboard)

Preparation Required:

- using tape measure
- clarifying concepts of length, width, and height
- formulas for area and volume

Assessment:

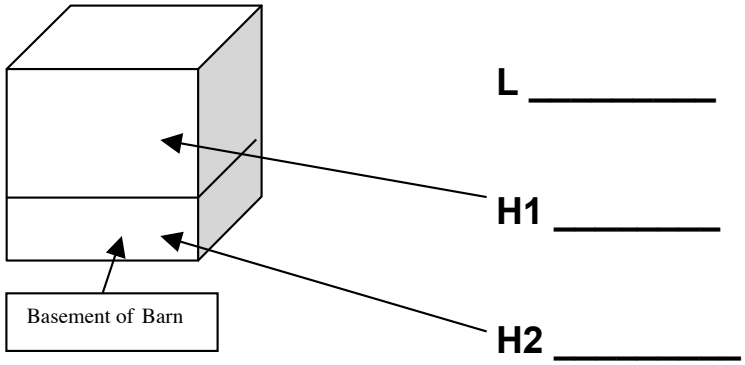
- Data table
- Calculations
- Rubric: (attached)

Possible Extensions:

- Determining the height of the gable roof
- Entire volume of barn
- Written Reflection
- Perimeter

Challenge Activity (See Journal)

Activity #3 **Barn**



Volume	Area
Lower Floor	Lower Floor
Middle Floor	Middle Floor
Total Area of lower and middle floor	

Challenge

A hay bale has a length of __3'___, a height of __2'__, and a width of __2'__. Draw the hay bale. How many bales of hay will fit in the lower section of the barn? How many bales of hay will fit in the middle section of the barn?