

Names _____ Date _____

Winter Schoolyard Soil and Air Temperature Worksheet

1. Choose eight different locations to measure the soil and air temperature in your schoolyard. The boundaries of the study area will be explained by the teachers prior to the experiment. Record the data in the spaces below.

◆ Location 1

- Soil Temperature °F _____ Air Temperature °F _____
- Is there snow? _____ Are there living plants? _____ Is there plant litter? _____
- Is there a building, fence or statue within four steps of you (Yes or No and Building, Statue or Fence)? _____
- If you face the structure, what direction are you looking? _____
- How many steps away is the structure? _____

◆ Location 2

- Soil Temperature °F _____ Air Temperature °F _____
- Is there snow? _____ Are there living plants? _____ Is there plant litter? _____
- Is there a building, fence or statue within four steps of you (Yes or No and Building, Statue or Fence)? _____
- If you face the structure, what direction are you looking? _____
- How many steps away is the structure? _____

◆ Location 3

- Soil Temperature °F _____ Air Temperature °F _____
- Is there snow? _____ Are there living plants? _____ Is there plant litter? _____
- Is there a building, fence or statue within four steps of you (Yes or No and Building, Statue or Fence)? _____
- If you face the structure, what direction are you looking? _____
- How many steps away is the structure? _____

◆ Location 4

- Soil Temperature °F _____ Air Temperature °F _____
- Is there snow? _____ Are there living plants? _____ Is there plant litter? _____
- Is there a building, fence or statue within four steps of you (Yes or No and Building, Statue or Fence)? _____
- If you face the structure, what direction are you looking? _____
- How many steps away is the structure? _____

◆ Location 5

- Soil Temperature °F _____ Air Temperature °F _____
- Is there snow? _____ Are there living plants? _____ Is there plant litter? _____
- Is there a building, fence or statue within four steps of you (Yes or No and Building, Statue or Fence)? _____
- If you face the structure, what direction are you looking? _____
- How many steps away is the structure? _____

◆ Location 6

- Soil Temperature °F _____ Air Temperature °F _____
- Is there snow? _____ Are there living plants? _____ Is there plant litter? _____
- Is there a building, fence or statue within four steps of you (Yes or No and Building, Statue or Fence)? _____
- If you face the structure, what direction are you looking? _____
- How many steps away is the structure? _____

2. After completing the data measurements, bring the data sheets back to the classroom to answer the following questions as a group.

◆ Where the air and soil temperatures the same in each location you measured? _____

◆ Where was the soil temperature the warmest? _____

- What was covering the ground at that location? _____
- Where there any buildings or structures nearby and which direction were they? _____

◆ *Where was the soil temperature the coldest?* _____

- *What was covering the ground at that location?* _____
- *Where there any buildings or structures nearby and which direction were they?* _____

◆ Did the air temperature change between different locations? _____

- Where was the air temperature the warmest? _____
- Where was the air temperature the coldest? _____

◆ If the soil temperature is 0 °Celsius, what is the temperature in Fahrenheit? _____

◆ If something is keeping the soil warm in the winter, will it also keep the soil warm in the summer? Why or why not? _____

◆ Name one new science question you have after completing today's activity? _____

