***Treasure Earth Data Sheet: Appalachian Mountains***

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| Challenge #1: Is the air moist? |  *Guess: Rainfall:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Humidity %:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*Rainfall Amount:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Humidity %: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  |
| Challenge #2*Could you grow corn here? Apples? Tomatoes?* |  *Guess: yes or no?* / Soil Consistency:\_\_\_\_\_\_\_\_\_\_\_\_ Soil Color: \_\_\_\_\_\_\_\_\_\_\_\_  Soil pH \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Fertility:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  |
| Challenge #3:*Is there water around here?* | Estimate of land type and water need: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Land Cover Type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Water need: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Challenge #4:*How much shade?* *(Tree canopy)* | The Tree Canopy covers and shades everything beneath it.*Estimate: \_\_\_\_\_\_\_\_\_\_%* / Actual Canopy Cover percentage: \_\_\_\_\_\_\_\_\_\_\_\_ |
| Challenge #5:*Which surface is cooler?* | *Which surface will be cooler? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (guess)* / Actual -Surface 1: \_\_\_\_\_\_\_\_\_\_\_ Surface 2:\_\_\_\_\_\_\_\_\_\_\_\_ Surface 3:\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Challenge #6: *Animal Adaptations* | Adaptation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_; \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_What Animal is this? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Challenge #7:*How clear is that water? (water quality)* | *Estimate of clarity: \_\_\_\_\_\_\_\_\_\_\_\_ feet* (How deep do you think can you see?)Actual Clarity:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ feet 2nd test: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Challenge #8:*Which substance is warmer?* *(temperature)* | Measure the air, the water and the soil temperature. Which is warmer?*Guess\_\_\_\_\_\_\_\_\_\_\_\_\_* / Actual-Air:\_\_\_\_\_\_\_\_\_\_\_\_\_ Soil: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Water:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Challenge #9: Where is the water? |  Guess how much moisture (water %) you think is in the soil \_\_\_\_\_, the trees\_\_\_\_\_Soil Moisture %: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_; Tree Moisture %: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Challenge #10:How tall is a tall tree? | *Guess how tall this tree is:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* /The Height of the tree? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ The Circumference?\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Challenge #11:Will it rain today? | *Guess: \_\_\_\_\_\_\_\_\_ yes or no? (before) / (after)* Rain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Cloud Type:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Contrail Type:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  |
| Challenge #12:How fast is the wind blowing? | *Estimate: (how fast?) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_mph /* **Try this 3 times to confirm.**Actual Speed: #1\_\_\_\_\_\_\_\_; #2\_\_\_\_\_\_\_\_\_\_\_; #3\_\_\_\_\_\_\_\_\_\_\_ |
|  Return Home | Can you find your way back? *Go to Treasure Earth 1*; Don’t be late! |

Rules: Stay with your group; Come back on time; Be safe; Don’t leave your group; LEARN!