***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!