Student Activity Sheet
Tree Ring Expeditions (TREX)

Lab 2: Humpty Dumpty and Drought in the Hudson Valley

Name:_____

Part 1: Exploring The Humpty Dumpty Talus Slope

1.1 What initially drew Dr. Cook to this area to do tree-ring research?

1.2 Why are the trees on the talus slope ideal for use in tree-ring research?

1.3 What did Dr. Cook hope to learn from the trees growing at Humpty Dumpty talus slope?

1.4 What is threatening the health of the trees at the Mohonk site?

1.5 How would you describe the Humpty Dumpty Talus Slope site? Be sure to emphasize the types of vegetation you see (how many different types of trees, scrubs, etc), the density of that vegetation, the soil or lack of soil, the presence or absence of water, and any other characteristics you may observe.

1.6 How would you describe the Enchanted Pond site? What are the differences between the two sites? Be sure to emphasize the types of vegetation you see (how many different types of trees, scrubs, etc), the density of that vegetation, the soil or lack of soil, the presence or absence of water, and any other characteristics you may observe.

1.7 How do you think these two different environments affect the growth of trees and the seasonal rings produced over both dry and wet seasons?

1.8 What role did serendipity play in Dr. Ed Cook's work near Monhonk Mountain in New York?

Part 2 - Coring Trees and Observing Ring Patterns

Attach or otherwise submit your Excel data table with this activity sheet.

2.1 Compare your data for the 5 cores. Do the years marked "N" and "W" in your cores fall at approximately the same years or are they different?

2.2.What are the "marker" years that you have found in the samples? In other words, which years consistently stand out for being very narrow or wide compared to their neighbors

2.3 Share your results with the other lab groups. Decide as a group the four most prominent marker years to study in Part 3 of the lab.

Part 3 - Gathering Historical Drought Data

 Paste your time series graph in the space below:

3.1 What trends do you observe in the data?

3.2 Describe any similarities you see between the data you graphed in Climate Explorer and the "marker years you identified in Part 2 of this lab.

Paste your seasonal data graph below:

3.3 What trends do you observe in each season?

3.4 How do these observations compare with your marker year results from Part 2?

Paste your maps of very dry and very wet years below:

3.5 Describe the spatial patterns you observe in the data.

3.6 How do these patterns compare with your results from Part 2 (Your Excel spreadsheet)?