

Name: _____ Date: _____ Pd: _____ Score: _____

Catastrophic Mysteries

After reading the resources provided, write a prediction for each question:

Mystery #1) What caused the **“Pachena Bay Village”** in Washington to disappear?

Mystery #2) What could cause the **“Orphan Tsunami”** in Japan?

Mystery #3) What could cause salt water to suddenly arrive in the **“Copalis Ghost Forest”** of Oregon?

Part 1

1. Why would scientists want to know what caused catastrophic natural disasters that happened a long time ago?
2. List 2 types of information that can be used as historical data and why is it important to science?
3. What does knowing **“*The experiences and perceptions of aboriginal peoples,*”** matter to science? What should it matter to you?
4. What might the Tillamook story of “Thunderbird and the Killer Whale” be about?

Part 2

Use the “Cross Cutting Concepts” list provided to write down examples to answer these questions:

1. How you have used some of these skills in your learning?
2. When have you seen adults use these skills?
3. Which skills will your team use to investigate the 3 mysteries?
4. Why are the skills you chose the best ones for this investigation?

Part 3

1. What “Cross Cutting Concepts” did scientist use to investigate?
2. What type of tests did they do?
3. How did they change their perspective when they couldn’t solve the mystery?
4. List the information they did know:
5. What did they think the natural disasters were related to?
6. What different CCC did the scientists use to solve the 3 mysteries?
7. Why would that change how they looked at the problem?

Part 4

1. Based on the data of the oral history data collection, are they a significant source of information?
2. Why are they most likely real and not myth?
3. Compare contrast the modern-day simulations of Japans 2011 quake with the 1700 descriptions from the Japanese written record and the tribal oral record. How are they similar?
4. What does the Honshu earthquake simulation show about how Earthquakes waves spread/move?
5. How long does it take waves to travel from Japan to Washington and vice versa?
6. What caused the trees to drop in Copalis before it was a ghost forest?
7. According to the soil images, what does a tsunami bring with each wave?
8. Why did scientists have to use systems thinking to solve the 3 natural disaster mysteries?