

National Geographic – Colliding Continents

Name: \_\_\_\_\_ Period: \_\_\_\_\_

**Before Viewing:** Answer the following questions completely prior to watching the video

1. What do you know about the Theory of Plate Tectonics?
2. Describe how your knowledge of the Theory of Plate Tectonics is directly related to our current learning goal.
3. How can considering what explorers 100 million years into the future would discover about our planet today help us understand the Earth's changes?

**While Viewing:** Answer the following questions...bullet points are acceptable. It is important that you view and listen to the video and take NOTES, not write in complete sentences! All questions go in order EXCEPT #1 – you will keep coming back to that one!

1. Explain how the following surface features help us understand plate movement:

- a. Iceland -
- b. The Red Sea -
- c. Mt. Kilimanjaro -
- d. The Alps -
- e. The Himalayas -
- f. The Grand Canyon -
- g. The Caribbean Islands & Panama -

2. How was the Earth created 4.5 billion years ago? What forces were involved?

3. Why does Dr. Bowring tell us what he "suspects" happened at the beginning of the Earth's development instead of explaining what REALLY happened?

4. Where do most people believe Earth's oceans came from?

5. What rock appeared in the continental crust 4.4 billion years ago? How was it different from the other rocks?

6. What mineral in rocks helps scientists date/age the rock? \_\_\_\_\_ What two elements in this

mineral help them? How?

7. Describe "pillow lavas".

8. What was the key to Wegener's initial evidence (the trilobite fossil) about the Theory of Continental Drift?

9. Describe how the formation of new rock occurs. (How? Where? Etc.)

10. What is a "subduction zone"?

11. What does the Earth's geological future hold in store for humankind?

12. What can we do about plate movement and the disasters/damage they cause? Why?

**After Viewing:** Use your new knowledge to reply to the following questions. These responses should be thorough!

1. What do you now think the blue and red dots you previously plotted represent? Explain your answer.

2. Rate this video! On a scale of 1 (I HATED it!) to 4 (I LOVED it!). Explain your rating.

3. Record at least two things you now wonder or questions you now have about plate tectonics.