ESS 200 (Stapleton) Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Formation of the Earth – Molten Sphere to Planet With Life

1. Scientists think that the early Earth was completely molten. According to the video, what caused the Earth to heat up to the point that it melted completely?

2. As soon as the Earth melted, layers began to form. Why did the Earth’s materials separate into different layers?

3. After the Earth melted, what caused the outside of the Earth to form a solid crust?

4. What method did scientists use to figure out the age of the earth?

5. Scientists used rock samples to find the age of the earth. Where did they get those samples?

6. Based on the most accurate measurements, how old is the Earth?

7. How do scientists think the moon was created?

8. There is not as much iron in the moon as there is in the Earth. This is a clue suggesting that the moon

 formed from material that came from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

9. How old are the oldest rocks that have been found on the Earth?

10. How old are the Earth’s oceans?

11. Scientists think that oceans existed at that time (previous answer), because rocks from that age contain a

 mineral that only forms in the presence of water. This mineral is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

12. Scientists think that much of the Earth’s water was brought to Earth by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

13. The discovery of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_ in meteorites suggest that the building blocks of life came from space.

14. Before about 3.5 billion years ago, there was no oxygen on the Earth. Scientists think the Earth’s oxygen

 was first produced by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_?

15. These bacteria created oxygen using \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

16. Where did all of our planet’s coal, oil, and gas deposits come from?

17. Where did limestone and chalk come from?