NOVA Video Questions: "Origins: Earth is Born"

Geology Mr. Traeger

Name: _____ Period: _____ Date: _____

Answer the questions that follow to the best of your ability. The questions are in chronological order. Pages 70 to 74 in your book will help a lot if you miss something in the video.

1. How many years ago was Earth thought to have formed?
2. Where did all the chemical elements in our solar system come from?
3. Where did the lighter elements like Hydrogen and Helium go to when the solar system formed?
4. What chemical element is our sun burning for fuel?
5. Where did the heavier elements like Iron go to when the solar system formed?
6. Describe the formation of our solar system. See pages 70 to 71 for details.
7. Would you expect all of the inner planets (Mercury, Venus, Earth, and Mars) to have the same chemistry? Why or why not?
8. How do meteor impacts help us to reconstruct what the Earth was like in its early days?
9. What kind of chemistry do meteorites have? In other words, what are they made of?
10. How do we ñdateò the age of meteorites?
11. What generated, and continues to generate, all of the heat inside of the Earth?
12. Diagram the four basic layers of our Earth. See page 72 for help.

13. Why is our Earth magnetic?

14. What makes a compass point North?

15. How does Earth's magnetic field protect us from solar radiation?

16. What is the Solar Wind?

17. What happened to the molten iron core of Mars? What happened to its magnetic field as a result?

18. How is our moon thought to have formed?

19. What happened to the original crust of the earth? Why did it disappear?

20. What is oxygen 18? How did this indicate the presence of water early in Earth's history?

21. How did water show up on our planet?

22. What do comets have to do with the origin of water in earth's oceans?

23. What do volcanoes have to do with the origin of water in earth's oceans?

24. What was the original atmosphere of earth like?