

NAME _____

THE EARTH IS BORN

This is a great flick! It is the first part of a multipart series called "Origins" that was on PBS several years ago. If they ever repeat it, be sure to watch it! "The Earth is Born" goes through the formation of the Earth and Moon. As you watch the flick, answer the following questions.

1. How old is the Earth? **4.5 billion years old.**
2. Where did the material that created our solar system originate? **From the explosion of ancient stars.**
3. What force brought the solar nebula together? **Gravity**
4. Describe how the inner planets first formed. **The inner planets resulted from the collisions of countless particles brought together by gravity.**
5. Describe what the early Earth looked like. **The early Earth was entirely molten. As the crust cooled, more and more volcanoes continued to erupt destroying the crust.**
6. What objects give us clues about what the early Earth look like? How do we get them?
Asteroids give us those clues. We get them in the form of meteorites that land on Earth.

7. After the Earth was first formed a major disaster known as the Iron Catastrophe happened. What caused it? What did it create? What did it create? **The Iron Catastrophe was caused by the repeated bombardment of the Earth by other objects. It caused the entire planet to become molten. As a result the heavy elements sank, and the lighter floated to the surface. It also created our core and our magnetic field.**
8. Why is the Earth's magnetic field so important to us? **It protects us from the solar wind.**
9. What will we supposedly lose when we lose our magnetic field? **We will lose our atmosphere.**
10. How did we get our first atmosphere? **From volcanic gasses.**
11. What did scientists discover about the age of the Moon? **It was younger than the Earth.**
12. How did the rocks on Earth compare to the rocks on the Moon? **They were almost the same.**
13. What mineral was missing from lunar samples? **Iron was missing.**
14. How was the Moon supposedly formed? **A Mars sized object collided with the Earth tearing off its outer layer.**
15. Originally, how long was a day on Earth? **Six hours.**

16. When the Moon was formed, it created a major change to the Earth. What was this change?
What resulted from this change? It created the tilt to the Earth's axis. The seasons resulted from the tilt.