

Earth's History Through Fairy-Tales

Grade 6

science

fairy-tales

Students will understand Earth's history through geological timescales and fossil evidence

Name: _____

Date: _____

1. In the fairy-tale 'Sleeping Beauty,' the castle existed for 100 years. Earth is how many times older than that?

2. Fossils are like clues in a fairy-tale mystery. What do fossils tell us about Earth's past?

3. If dinosaurs were the 'dragons' in Earth's fairy-tale, explain why dinosaur fossils appear in only certain rock layers.

4. In Cinderella's story, her glass slipper never changed. How do scientists know that rocks and Earth DO change over time?

5. The fairy-tale 'Hansel and Gretel' features a deep forest. Describe how deep rock layers help us read Earth's history.

6. If a fairy-tale character discovered fossils of tropical plants in frozen Antarctica like in 'The Snow Queen,' what would this evidence suggest?

7. In 'Jack and the Beanstalk,' the beanstalk grew suddenly. Compare this to how Earth's geological changes actually occur over vast timescales.

8. Fairy-tales describe magical transformations instantly. Explain how the fossil record shows that life's transformations through evolution take millions of years.

Answer Key: Earth's History Through Fairy-Tales

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Use fairy-tale references to make geological time periods relatable and memorable for students.

1. In the fairy-tale 'Sleeping Beauty,' the castle existed for 100 years. Earth is how many times older than that?

Answer: Earth is approximately 46 million times older (4.6 billion years old)

2. Fossils are like clues in a fairy-tale mystery. What do fossils tell us about Earth's past?

Answer: Fossils show us what organisms lived long ago and how life has changed over time

3. If dinosaurs were the 'dragons' in Earth's fairy-tale, explain why dinosaur fossils appear in only certain rock layers.

Answer: Different organisms lived during different time periods; rock layers show the order life appeared on Earth

4. In Cinderella's story, her glass slipper never changed. How do scientists know that rocks and Earth DO change over time?

Answer: Evidence includes erosion, weathering, volcanic activity, continental drift, and fossils showing extinction and evolution

5. The fairy-tale 'Hansel and Gretel' features a deep forest. Describe how deep rock layers help us read Earth's history.

Answer: Deeper layers are older; studying layers from bottom to top shows Earth's history in sequence over billions of years

6. If a fairy-tale character discovered fossils of tropical plants in frozen Antarctica like in 'The Snow Queen,' what would this evidence suggest?

Answer: Antarctica was once warmer with different climate; continents moved; Earth's climate changes significantly over geological time

7. In 'Jack and the Beanstalk,' the beanstalk grew suddenly. Compare this to how Earth's geological changes actually occur over vast timescales.

Answer: Earth changes happen gradually over millions of years through processes like plate tectonics, erosion, and sedimentation; not suddenly

8. Fairy-tales describe magical transformations instantly. Explain how the fossil record shows that life's transformations through evolution take millions of years.

Answer: Fossils in successive layers show gradual changes in organisms over time; intermediate forms demonstrate species evolving, not appearing instantly