

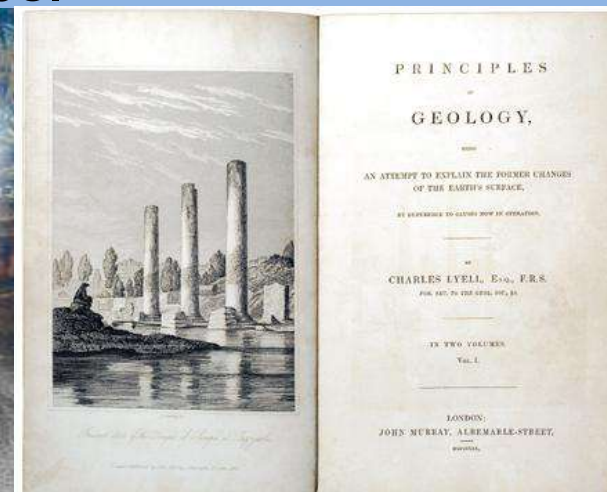
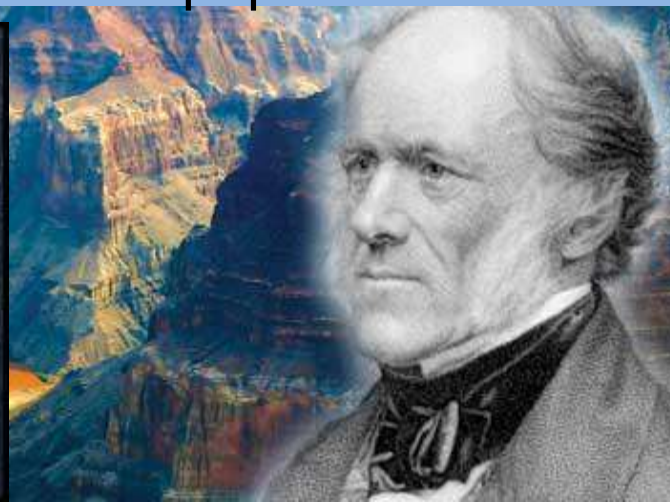
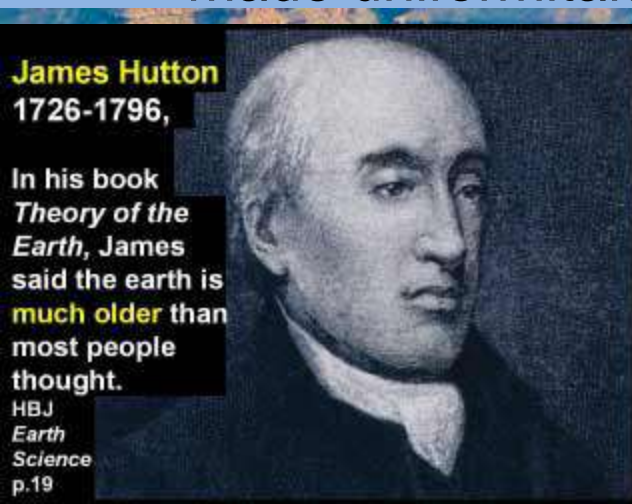
Earth's Story and Those Who First Listened

Objectives

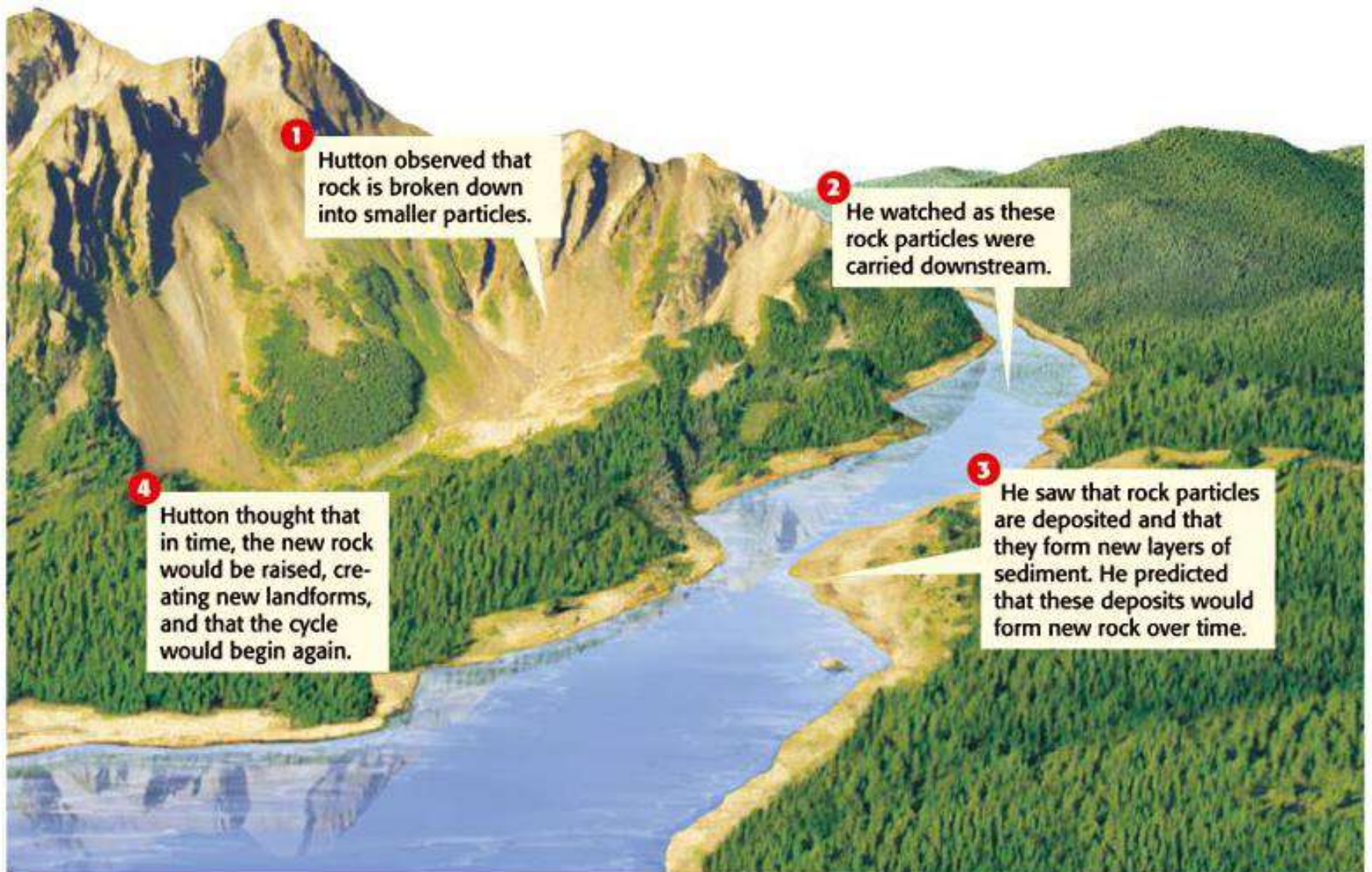
- **Compare** uniformitarianism and catastrophism.
- **Describe** how the science of geology has changed over the past 200 years.
- **Explain** the role of paleontology in the study of Earth's history.

I. The Principle of Uniformitarianism

- A. What Is Uniformitarianism?** Uniformitarianism is the idea that the same geologic processes shaping the Earth today have been at work throughout Earth's history. Uniformitarianism is illustrated on the next slide.
- B. Uniformitarianism Verses Catastrophism** Catastrophism is the principle that states that all geologic change occurs suddenly. In the past, most scientists supported catastrophism rather than uniformitarianism.
- C. A Victory for Uniformitarianism** Geologist Charles Lyell made uniformitarianism popular in the 1830s.



Hutton and the Principles of Uniformitarianism



II. Modern Geology—A Happy Medium

- **Best of Both Worlds** Modern geology is based on the idea that gradual geologic change is interrupted by catastrophes.



III. Paleontology-The Study of Past Life

- **The Story Told by Fossils** Using fossils to study past life is called *paleontology*.

