

Uniformitarian vs Catastrophism

James Hutton Video:

- 1.
- 2.
- 3.
- 4.

Table:

	Uniformitar-ianism	Catastro-phism
How does the Earth change?		
How fast do the changes take place?		
What evidence do we have?		

Evolution of the Geosphere



Table Talk:

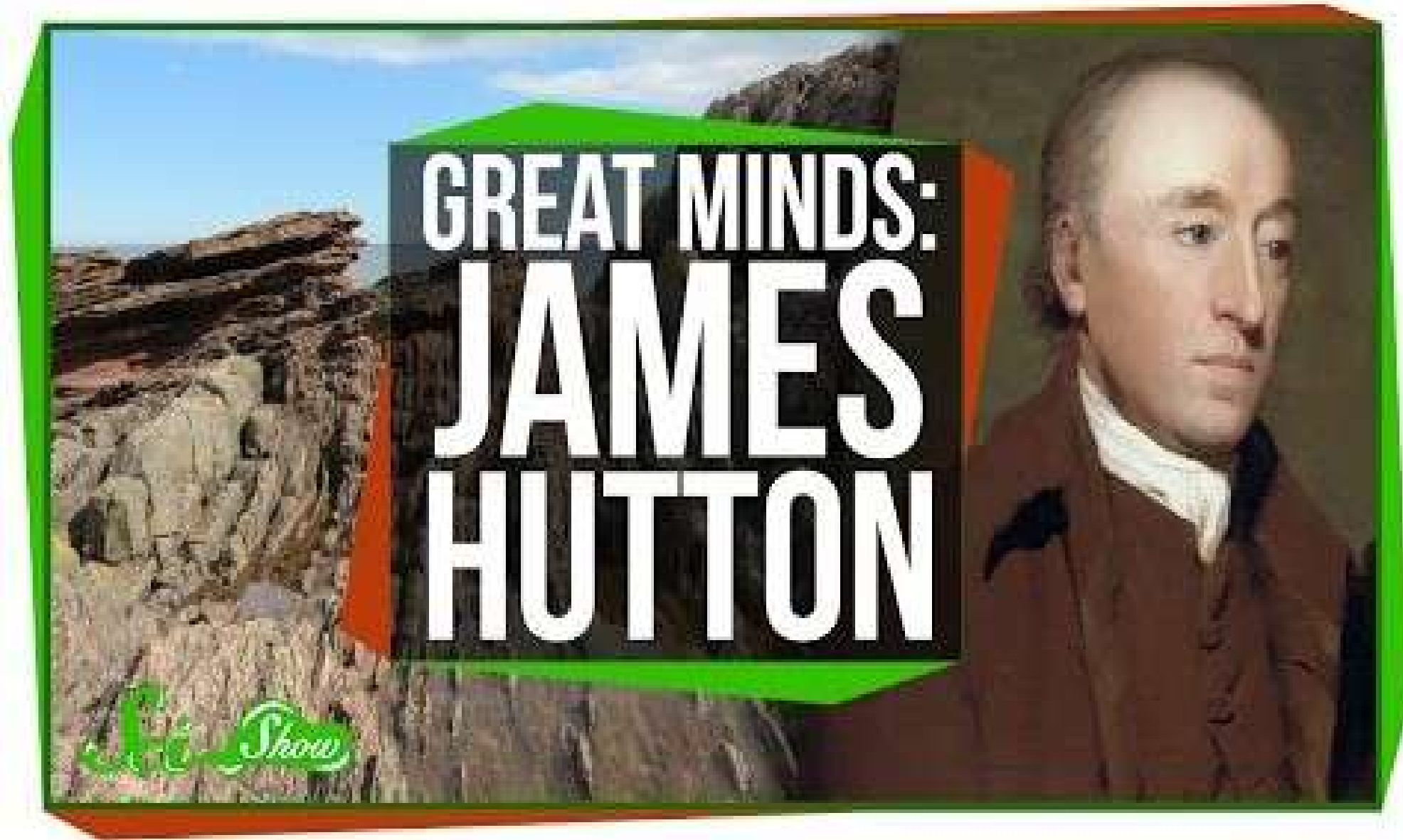
What type of events need to happen for the earth to change?

1. Who was James Hutton?

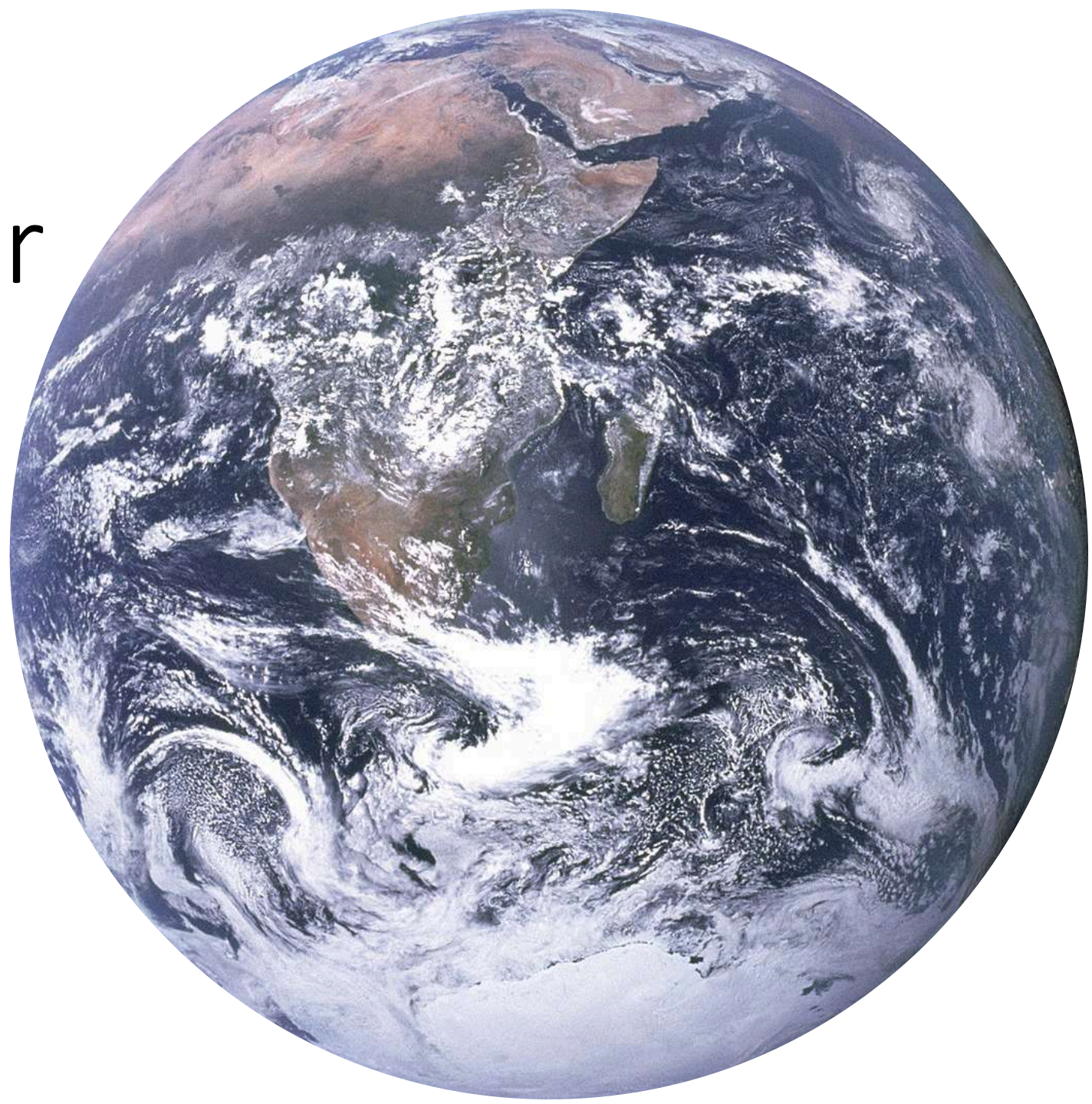
2. Explain why would Hutton's work be controversial in his time?

3. Try to Define: Catastrophism

4. Try to Define: Uniformitarian



Changes to our Earth



EQ: How does the Earth evolve and change shape?





Earths Story:

For 1000s of years humans have wondered about Earth's history

2 Main View Points:

1. The Earth was shaped suddenly
2. The Earth was shaped slowly over billions of years.

This argument is known as catastrophism vs uniformitarianism.

Catastrophism- principle that states all geologic change occurs suddenly

Evidence- Floods, asteroid impacts and other catastrophes created mountains, canyons, and seas.

Examples of Catastrophism:



Earthquakes



Meteors



Volcanic Eruptions



Tsunamis

Uniformitarianism (aka **Gradualism**)- principle that states the same geologic processes shaping Earth today have been working throughout Earth's history.

Evidence: Weathering, erosion and other geologic processes happen slowly.
Therefore the Earth must have been shaped slowly.

Examples of Uniformitarianism:



Weathering



Erosion



Deposition

Real Life:

- Earth has been shaped by a combo of catastrophism & uniformitarianism events
- Most geo change is slow/ gradual.
- But catastrophes have contributed to shaping Earth.

Summary (4 Sentences)

