

Name: _____ Period: _____ Date: _____

Deep Time Video

James Hutton and the Rock Cycle

Directions: *Answer the following questions using complete sentences only where necessary.*

- 1) During what century did people first start to understand how mountains and other landforms on our planet had formed and changed over time?
- 2) What country was James Hutton from? (*HINT* → *Same as Iain Stewart, himself*)
- 3) What did Hutton predict should happen if the drainage ditches and streams continued to carry away the soil?
- 4) What evidence did Hutton see in the landscape around him that showed how new land could be made to replace the land that was eroding away?
- 5) What immense geologic formation in the US is comprised of many layers of sedimentary rock?
- 6) What important industrial invention did James Watt help to improve?
- 7) What did Hutton think the center of the Earth would be like?
- 8) What did Hutton discover from the glass factory in Edinburgh?
- 9) Why was it “controversial” for Hutton to claim that granite had once been molten?
- 10) What was Hutton looking for at the meeting place of the two rivers in Blair Atholl?
- 11) Describe how horizontal sedimentary rock layers become vertical over millions of years:
- 12) What is meant by the phrase, “Deep Time”?