

Magnetic Storm Video Questions

Name: _____ Period: _____ Date: _____

- 1) Where is the Earth's magnetic field generated? (4:30)
- 2) What is happening to the Earth's magnetic field? (5:00)
- 3) Opposite magnetic poles attract/or repel. Like magnetic poles attract/or repel. Circle correct answer. (6:30).
- 4) Draw Earth's magnetic field, including field lines and directions of those field lines. (7:30)
- 5) What is space weather and why do we need a magnetic field to protect us from it? (8:30).
- 6) What produces the northern and southern lights? (9:30)
- 7) How are extraterrestrial magnetic field directions and magnitudes measured? (12:00)
- 8) Does Mars currently have a magnetic field? Did it have a magnetic field at one time? (14:00)
- 9) How does a magnetic field become established in rocks? (14:30)
- 10) What do scientists think Mars was like over 4 billion years ago? (15:00)
- 11) What happened to Mars after 4 billion years ago? What is our evidence for this? (16:00)
- 12) What would happen to Earth without a magnetic field? (18:00)
- 13) How can pottery be an indicator of past planetary magnetism on Earth? (19:00)
- 14) What does the pottery record show has happened to Earth's magnetic field over the last 5,000 years? (21:00)
- 15) What really generates the magnetic field in the Earth's outer core? (24:00)

- 16) Describe the feedback loop of Earth's magnetic dynamo in the outer core. (26:00)

- 17) What would cause the Earth's magnetic field to shut down? (28:00)

- 18) How long will it take Earth's core to cool? (29:00)

- 19) Why do scientists sample lava from Kilauea in Hawaii? (31:00)

- 20) What was the magnetic orientation of rocks 780,000 years ago? (34:00)

- 21) On average, how often do magnetic reversals occur? (35:00)

- 22) Is there a link between the strength of a magnetic field and its direction? (36:00)

- 23) What is magnetic declination (variation)? How does a navigator have to adjust for this to get where she or he is going? (42:00)

- 24) How can magnetic variation tell us the magnetic field is changing? (43:00)

- 25) What are we seeing happen in the South Atlantic Ocean? (44:00)

- 26) What did Geologist Rob Coe find in Steens Mountain in Oregon? (46:00)

- 27) What happens to life on Earth when the magnetic field flips? (49:00)

- 28) How will the aurorae shift when the magnetic field flips? (52:00)