

What is Earth Science Handout 1 (purple)

1

- How did cultures throughout history attempt to explain events such as volcano eruptions, earthquakes, and eclipses?
 - By developing myths or stories.



2

- How does modern science attempt to understand Earth and its changing landscape?
 - Modern science searches for natural causes and uses careful observation.

The Scientific Study of The Earth

3

- Scientists in China began keeping records of earthquakes as early as _____ BCE.
 - 780 BCE.

4

- Based on their observations, the Maya created _____.
 - calendars.

5

- Earth science is the scientific study of _____.
 - Earth and the universe around it.

6

- It is assumed in Earth science that causes of natural events or phenomena _____.
 - can be understood through careful observation and experimentation.

Branches of Earth Science

7

- What is the scientific study of the oceans called?
 - oceanography

8

- A branch of science called _____ is the scientific study of Earth's atmosphere, especially in relation to weather and climate.
 - meteorology

9

- Name two technologies that meteorologists use to study the atmospheric conditions that produce weather.
 - Satellites
 - Weather maps
 - Computer models

10

- Modern astronomers use Earth- and space-based _____ to study the sun, the moon, the planets, and the universe.
 - telescopes

11

- Name four issues that environmental scientists study.
 - The use of natural resources
 - Pollution
 - The health of plant and animal species on Earth
 - The effects of industries and technologies on the environment

12

- What natural event could bury a town under ash?
 - volcano

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Questions 1-7

1. Discuss how one culture contributed to modern science.

- *Chinese: kept records of earthquakes over 2,500 years ago*
- *Greeks: studied rocks and minerals over 2,200 years ago*
- *Mayans: tracked movements of sun, planets, and moon thousands of years ago*
- *Mayans: observations of sky led to accurate calendars*

2. Name the four major branches of Earth science .

- *Geology*
- *Oceanography*
- *Astronomy*
- *Meteorology*

- We also will study Environmental Science

3. Describe two specialized fields of geology .

- *Some explore for mineral and fossil fuel deposits, earthquakes (seismologists)*
- *Volcanoes (Volcanologists)*
- *Some study the history of Earth using fossils (paleontologists)*

4. *Describe the work of oceanographers and meteorologists .*

- *Oceanographers study ocean currents, tides, and waves.*
- *Meteorologists study weather patterns and predict storms.*

5. *Explain how the work of astronomers has been affected by technology .*

- *Telescopes, satellites, and space probes have expanded astronomers view and knowledge of the universe*

6. How have Earth scientists improved our understanding of the environment?

- *Earth scientists have helped us understand the forces that shape Earth and thus shape the environment we live in.*
- *Their understanding helps predict geologic events and helps us find Earth resources we need.*

7. Give two examples of how exploring space and exploring the ocean depths are similar.

- *Both are inhospitable environments for humans (we cannot survive), and*
- *Both require the use of special equipment for humans to study them.*

The End???

