

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## **INTRODUCTION TO EARTH SCIENCE:** **GUIDED NOTES**

\_\_\_\_\_ is the name of the group of sciences that deals with Earth and its neighbors in space.

Earth science is divided into five broad categories:

1. Geology—the study of the \_\_\_\_\_ Earth
2. \_\_\_\_\_—the study of the Earth's oceans
3. Meteorology—the study of the Earth's \_\_\_\_\_
4. Astronomy—the study of the Earth's place in the universe
5. Environmental Science – the study of how an organism interacts with its  
\_\_\_\_\_

Earth can be thought of as consisting of four major spheres:

- a. Hydrosphere
- b. Atmosphere
- c. \_\_\_\_\_
- d. Biosphere

The hydrosphere includes all liquid water on Earth—both \_\_\_\_\_ and \_\_\_\_\_.

The atmosphere consists of the gaseous envelope surrounding the Earth. Although the atmosphere extends more than 100km up, 90% is within 16km of the surface.

The \_\_\_\_\_ includes all life on Earth. The biosphere is concentrated in a zone that extends from the ocean floor upward several kilometers in the atmosphere.

The geosphere consists of the \_\_\_\_\_ parts of the planet and is not uniform.

Based on differences in composition it is divided into three main regions, the core, the \_\_\_\_\_, and the crust.

All science is based on two *big* assumptions:

1. The universe behaves in a consistent and predictable manner.
2. Through study, we can understand this behavior.

Once observations have been made and data gathered, scientists try to explain how or why things happen in the manner observed.

- They state a possible explanation called a \_\_\_\_\_.
- Once further observations have been made and/or tests performed, scientists either accept, modify, or \_\_\_\_\_ their hypothesis.
- The hypothesis is elevated to a Scientific Theory once it has been well tested and accepted by the scientific community as the best explanation of \_\_\_\_\_ facts.