

Chapter 1

**Studying the Earth**

Section 1

**The Earth - Earth Sciences -The Scientific Method**

astronomy  
atmosphere

The science concerned with stars and planets.  
The blanket of air, dust, water droplets, ice particles, etc. that completely covers the earth's lithosphere and hydrosphere.

biosphere  
chemical property  
classifying

The region where all life is found.  
A feature of the way one substance reacts with another substance.  
Grouping similar objects or events.

data  
direct observation

A collection of observations.  
Information received by one or more of the senses.

geology  
hydrology

The science concerned with the earth's lithosphere.  
The science concerned with the earth's entire hydrosphere.

hydrosphere  
hypothesis

The entire liquid or water part of the earth.  
Possible answer to a problem, based on observations.

indirect observation  
inference

An observation that requires the use of an instrument.  
An interpretation of observations.

instrument  
lithosphere

Used to extend our senses when making observations.  
The solid part of the earth.

meteorology  
oceanography

The science concerned with the earth's atmosphere.  
The science concerned with the oceans.

petrology  
physical property

The part of geology that specializes in rocks.  
A feature of a substance in itself.

theory

Based on strong evidence that several generally accepted hypotheses are correct.  
An explanation for observed phenomena that has a high possibility of being true. (PI)

## Chapter 2 Section 1 **Minerals**

atom	The smallest complete part of an element with all the properties of that element
cleavage	The ability of a mineral to break into smooth, parallel surfaces
compound	A substance made up of two or more elements joined together in fixed proportions
crystal	The shape produced when mineral grains have freedom to form in any direction
crystalline solid	A solid substance whose atoms are locked together into fixed patterns; true of all minerals
element	A substance that contains only one kind of atom
heft	A rough-estimate weight test for minerals
impurities	Atoms of elements other than the key elements of a mineral
inorganic	Not organic; formed, for the most part, without the help of plants and animals
luster	The way that a mineral reflects the light
matter	Anything that takes up space and has mass
mineral	A compound that is natural, inorganic, a crystalline solid, and made up of key elements
nonsilicate minerals	All minerals that are not silicates
silicate minerals	Minerals containing silicon and oxygen
streak	The color of the powder of a mineral against a white background
theory	A way of explaining how or why something happens
fracture	The manner in which a mineral breaks (that does not have cleavage)

## Chapter 2 Section 2 **Rocks**

sedimentary rock	Rock that is formed from sediments
lava	What magma is called after it reaches the surface of the earth
magma	Liquid rock melt that is found in some places beneath the earth's surface
metamorphic rock	Rock that is formed deep within the earth's crust when minerals and rocks are changed by very great heat and pressure which changes the crystal structure
mineral composition	A list of the minerals that make up a rock
rock	A mixture of minerals that is beneath all soil and water on the earth's surface Naturally formed, consolidated material composed of grains of one or more minerals. (There are a few exceptions to this definition.) (PI)
rock cycle	The process by which rock is changed from one class to another
igneous rock	Rock that is formed from hot melted materials
texture	The pattern made by the size, shape, and arrangement of the particles that are in rock

Chapter 2 Section 3 **Using Earth Materials**

coal	A solid fossil fuel.
fission	Atomic energy that is produced when certain large, unstable atoms are made to split apart to form atoms of a different element.
fossil fuels	Fuels formed from the remains of plants and animals that lived and died long ago.
fusion	Atomic energy that is produced when atoms of an element are fused together to form atoms of a different element.
geothermal energy	Energy powered by heat from deep within the earth's crust.
hydroelectric energy	Electricity produced by generators powered by moving water.
mine	The place that ore comes from.
natural gas	A fossil fuel that is a gas.
ore	Any mineral or rock from which a needed substance can be removed cheaply enough and easily enough.
<b>peat-</b>	<b>A brown, lightweight, unconsolidated or semi-consolidated deposit of plant remains. (PI)</b>
petrochemicals	Chemical products made from petroleum.
petroleum	A liquid fossil fuel.
solar energy	Energy from the sun.
trap	A kind of blockage formed by nonporous rock that traps petroleum and natural gas.