

Name: _____

Test Date: _____

Water, Weather & Climate Study Guide

Air:

- ❖ Air can be compressed (pushed into a smaller space).
- ❖ Air is matter, which means it has mass and takes up space.
- ❖ Air is a mixture of gases.
 - The most plentiful gas in air is _____.
 - The 2nd most plentiful gas in air is _____.
- ❖ Our air is heated through radiation, conduction, and convection.
- ❖ The atmosphere is made up of several layers.

Weather:

- ❖ Weather is the study of the atmosphere in a given time and place.
- ❖ Almost all of our weather happens in the _____ layer of our atmosphere.
- ❖ Weather related hazards include _____, _____, and _____.
- ❖ A cold front happens when a cold air mass overtakes a warm air mass. When this happens thunderstorms often occur.
- ❖ Draw the symbol for a cold front below.

- ❖ A warm front happens when a mass of warm, moist air overtakes a cold air mass. When this happens there will likely be a long, light rain.
- ❖ Draw the symbol for a warm front below.

Heating Earth Materials:

- ❖ _____ is the term we use to describe heat being transferred through waves or rays.
- ❖ _____ is the term we use to describe how heat is transferred through contact.
- ❖ _____ is the term we use to describe the circulation of fluid (gas or liquid) that causes warm masses to rise and cool masses to sink.
- ❖ Convection currents create wind.
- ❖ The _____ is the major source of energy that is responsible for heating Earth.

Water Cycle:

- ❖ About _____% of Earth's surface is covered by water.
- ❖ Water exists on earth in 3 states: _____, _____, and _____.
- ❖ _____ is the process of liquid water changing into water vapor.
- ❖ When water vapor touches a cool surface it changes back into liquid water drops. We call this _____.

- ❖ Rain, snow, sleet, and hail are all examples of _____.
- ❖ Water vapor is an invisible gas found in the _____.
- ❖ Draw a picture of the water cycle using words and arrows to describe what happens.

Climate

- ❖ Climate is the typical or average weather trends over a long period of time.