Name _____ Date _____

Chapter 2 Section 2 (pages 32–36) *Reading Study Guide*

Bodies of Water and Landforms

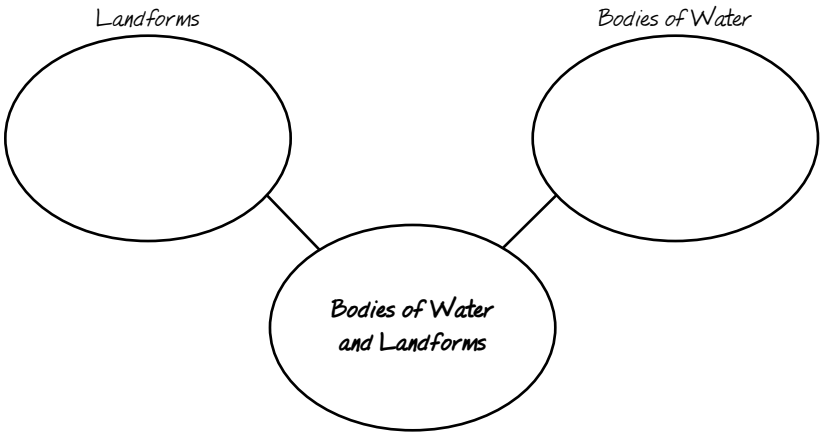
BEFORE YOU READ

In the last section, you learned where the earth is in the solar system and how it is constructed.

In this section, you will read about the features on the earth's surface.

AS YOU READ

Use this graphic organizer to take notes on details of the earth's landforms and bodies of water.



PLACES & TERMS

hydrologic cycle the continuous circulation of water between the atmosphere, oceans, and earth

drainage basin an area drained by a major river and its tributaries

ground water water held in rock pores beneath the soil

water table the level at which the rock is saturated

landform naturally formed features on the earth's surface

continental shelf the earth's surface from the edge of a continent to the edge of the deep part of the ocean

relief the difference in elevation of a landform from the lowest point to the highest point

topography the combination of characteristics of the landforms and their distribution in a region

Bodies of Water

OCEANS AND SEAS (page 32)

How *does ocean water circulate?*

Water supports plants and animals, and it helps distribute heat on the earth.

The ocean is an interconnected body of salt water that covers about 71 percent of our planet. Even though it is one ocean, geographers have divided it into four main parts. The oceans are the Atlantic Ocean, the Pacific Ocean, the Indian Ocean, and the Arctic Ocean.

The salty water of the ocean circulates through three basic motions: currents, waves, and tides. Currents act like rivers flowing through the ocean. Waves are swells or ridges produced by winds. Tides are the regular rise and fall of the ocean. They are caused by the *gravitational* pull of the moon or the sun.

The motion of the ocean helps distribute the heat on the planet. Winds blow over the ocean and are either heated or cooled by the water. When the winds blow across the land, they change the temperature of the air over the land.

1. How does the motion of the ocean distribute heat?

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HYDROLOGIC CYCLE (page 32–33)

What *is the hydrologic cycle?*

The **hydrologic cycle** is the continuous circulation of water between the atmosphere, the oceans, and the earth. Water from the surface of the oceans, other bodies of water, and from plants evaporates into the atmosphere. The water then exists in the

atmosphere as vapor. When the vapor cools it condenses. Then precipitation, either rain or snow, falls to the earth. The rain or snow soaks into the ground, evaporates into the atmosphere, or flows into rivers to be recycled.

2. How does water get into the atmosphere?

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LAKES, RIVERS, AND STREAMS (page 33)

***What** is a drainage basin?*

Lakes hold more than 95 percent of all the earth's fresh water. There are freshwater lakes and some saltwater lakes.

Rivers and streams move water to or from larger bodies of water. Smaller streams are called tributaries. They pour water into larger rivers. Rivers and streams connect into drainage systems that look like trees and branches. Geographers call an area drained by a major river and its tributaries a **drainage basin.**

Some water on the surface of the earth is held by the soil. Some water is held in the pores of rock below the soil. This is called **ground water**. The level at which the rock is *saturated* marks the rim of the **water table**. The water table may rise or fall depending on the amount of precipitation in the region. It might also change based on the amount of water pumped out of the ground. Underground rock layers that store water are called aquifers.

3. Where is water under the ground found?

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Landforms

OCEANIC LANDFORMS (pages 33–36)

***What** is the continental shelf ?*

Landforms are naturally formed features on the surface of the earth. The earth's surface shows a wide range of different landforms. These include mountains, valleys, plateaus, mesas, plains, bays, peninsulas, islands, and volcanoes.

The sea floor has landforms similar to those above water. The earth's surface from the edge of a continent to the edge of the deep part of the ocean is called the **continental shelf**. The floor of the ocean has ridges, valleys, canyons, and plains. Ridges mark places where new crust is being formed on the edges of the continental plate.

Mountain chains similar to those on the continents cover parts of the ocean floor. The longest continuous range is the Mid-Atlantic Range. It extends thousands of miles north to south through the middle of the Atlantic Ocean.

Islands dot the ocean surface. Islands may be formed by volcanic action, deposits of sand, or by deposits of coral skeletons.

4. What landforms are found in oceans?

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CONTINENTAL LANDFORMS (page 36)

***What** is relief?*

The major geographic feature that separates one type of landform from another is relief. **Relief** is the difference in elevation of a landform from the lowest point to the highest point. There are four categories of relief: mountains, hills, plains, and plateaus. A mountain, for example, has great relief compared to a plain. A plain has very little relief, or difference between the high and low points.

Topography is the combination of the characteristics of landforms and their distribution in a region. A topographic map shows the landforms with their vertical dimensions and in relationship to other landforms.

5. What does a topographic map show?

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