Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_ NOTES

**Notes: Distribution of Water**

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| --- | --- |
| **How does water flow and collect on Earth’s surface?** | * The force of \_\_\_\_\_\_\_\_\_\_\_\_\_\_ pulls water downhill in a series of streams and \_\_\_\_\_\_\_\_\_\_, collects in \_\_\_\_\_\_\_\_ and ponds, and eventually flows into the \_\_\_\_\_\_\_
* The water flows between \_\_\_\_\_\_\_\_\_ points that are called \_\_\_\_\_\_\_\_\_\_\_\_ in the \_\_\_\_\_\_\_ points that are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or river basins).
 |
| **What is the difference between a divide and a drainage basin?** | * Divides and drainage basins affect the way water \_\_\_\_\_\_\_\_\_\_\_\_ on land.
	+ A \_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a ridge, or continuous line of \_\_\_\_\_\_\_\_\_\_\_ land, from which water flows in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ directions.
		- Ex: hills, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	+ A drainage basin, or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, is an area into which all of the water on one side of a \_\_\_\_\_\_\_\_\_\_\_\_\_\_ flows.
		- In mountainous areas, hills and mountains form the \_\_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_\_ form low points.
		- Flatter regions also have \_\_\_\_\_\_\_\_\_\_\_\_ (small hills/bumps in land)
		- When it \_\_\_\_\_\_\_\_\_\_, the water forms streams and rivers or sinks into the \_\_\_\_\_\_\_\_\_\_\_\_\_\_. In most places, the water eventually flows to the \_\_\_\_\_\_, but in a basin, the water may \_\_\_\_\_\_\_\_\_\_\_\_ at the bottom of the basin or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Draw a picture showing a divide and drainage basin. Be sure to **label** each one.  |
| **What are ponds and lakes?** | * Ponds and \_\_\_\_\_\_\_\_\_\_ form where water \_\_\_\_\_\_\_\_\_\_\_\_\_ in \_\_\_\_\_\_\_ parts of land.
* Water can fill a \_\_\_\_\_\_\_\_\_\_ in several ways.
	+ The land surface can dip \_\_\_\_\_\_\_\_\_\_\_\_ the level of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ water.
	+ \_\_\_\_\_\_\_\_\_ and other precipitation can add to the lake.
	+ Water can flow from a stream or a \_\_\_\_\_\_\_\_\_\_\_\_\_ into a lake.
	+ Lakes maintain a steady level because the “in-flow” (water flowing \_\_\_\_\_) is approximately \_\_\_\_\_\_\_\_\_\_\_\_ to the “outflow” (water flowing \_\_\_\_\_\_\_\_).
 |
| **How much of Earth’s freshwater is frozen?** | * About \_\_\_\_\_\_\_ of fresh water on Earth is locked up in the \_\_\_\_\_\_\_ covering land near the \_\_\_\_\_\_\_\_\_\_\_\_.
* In Earth’s coldest regions, more snow \_\_\_\_\_\_\_\_\_\_\_ each year than \_\_\_\_\_\_\_\_\_\_\_\_, and the snow builds up to form \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
	+ A **\_\_\_\_\_\_\_\_\_\_\_\_\_** is a large mass of ice and snow that moves over \_\_\_\_\_\_\_.
	+ There are \_\_\_\_\_\_ types of glaciers:
		- \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ glaciers: cover huge landmasses (Antarctica and Greenland).
		- \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ glacier: builds up in \_\_\_\_\_\_\_\_\_\_\_ areas and moves slowly down between \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* An **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** is a mass of ice \_\_\_\_\_\_\_\_\_\_\_\_\_ in the ocean. It starts out as part of a \_\_\_\_\_\_\_\_\_\_\_\_\_\_.
	+ Glaciers form ice shelves that extend out over the \_\_\_\_\_\_\_\_\_\_\_\_\_ and when a portion of a shelf breaks off and floats away, it becomes an \_\_\_\_\_\_\_\_\_\_\_.
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of icebergs break off from ice sheets each year.
		- Icebergs can vary in \_\_\_\_\_\_\_\_\_\_ from very small to very large ones.
	+ The water in an iceberg may have been frozen for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ years.
 |
| **How does freshwater flow underground?** | * Water fills \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ spaces.
	+ After a rainstorm, water flowing along Earth’s surface \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or sinks into the \_\_\_\_\_\_\_\_\_.
	+ Water held underground is called **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
* A **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** substance is a substance that liquids \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ through.
	+ Ex: soil, \_\_\_\_\_\_\_\_\_\_\_\_, and gravel
	+ In a permeable substance, water (or any liquid) flows \_\_\_\_\_\_\_\_\_\_\_\_\_\_ the particles.
* An **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** substance is a substance that liquids \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ through.
	+ Ex: glass and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Groundwater collects because gravity causes rainwater to sink into the \_\_\_\_\_\_\_\_\_\_ until it reaches \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ rock.
	+ Huge amounts of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ may be stored in the soil.
	+ The **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** is the top of the region that is saturated, or completely \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ with water.
		- The area below the water table is known as the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ zone.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ rock prevents groundwater from sinking farther down.
 |
| **What is an aquifer?** | * An **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** is an underground layer of permeable rock or sediment that contains \_\_\_\_\_\_\_\_\_\_\_\_\_\_.
	+ Aquifers are found all over the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
	+ For an aquifer to form, \_\_\_\_\_\_\_\_\_\_\_\_\_\_ things are needed:
		- A layer of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ material holds the water.
		- A neighboring area of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ rock that keeps the water from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ away.
		- A source of water that replenishes or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the aquifer.
	+ Water in an aquifer moves \_\_\_\_\_\_\_\_\_\_ because it is under \_\_\_\_\_\_\_\_\_\_\_ from all sides.
	+ Water in an aquifer may have been there for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of years.
* The Importance of Aquifers
	+ The ground acts like a giant \_\_\_\_\_\_\_\_\_\_\_\_\_\_ for the groundwater.
	+ Stones and sand filter out \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and other living organisms as well as some harmful \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and minerals.
	+ Many big \_\_\_\_\_\_\_\_\_\_\_\_ collect water from rivers and store it in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ above the ground.
	+ About \_\_\_\_\_\_\_\_\_\_ of the people in the US get their freshwater from underground
 |
| **How does groundwater get to the surface?** | * Springs and Wells
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ can be collected from springs and wells.
	+ A **\_\_\_\_\_\_\_\_\_\_\_\_\_** is a flow of water from the ground at a place where the surface of the land dips \_\_\_\_\_\_\_\_\_\_\_\_\_ the water table.
	+ A **\_\_\_\_\_\_\_\_** is a hole in the ground that reaches down to the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ zone.
		- A \_\_\_\_\_\_\_\_\_\_ is used to draw the water out, and a screen is used to filter out particles of sand and gravel.
	+ An \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ well is a well in which water flows to the surface naturally because it is under \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
		- An artesian well does not need a \_\_\_\_\_\_\_\_\_\_\_\_ because the water in that area is under pressure.
 |
| **How deep is the water table?** | * The \_\_\_\_\_\_\_\_\_\_\_ of a water table can vary from season to season depending on how much rain \_\_\_\_\_\_\_\_\_\_\_\_ and how much water is \_\_\_\_\_\_\_\_\_\_.
	+ Things that can drop the water table: watering \_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, used \_\_\_\_\_\_\_\_\_\_\_\_\_\_ than replaced
	+ Things that can raise the water table: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
 |

**Draw: Groundwater: Label: Draw: the difference between wells and springs:**

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