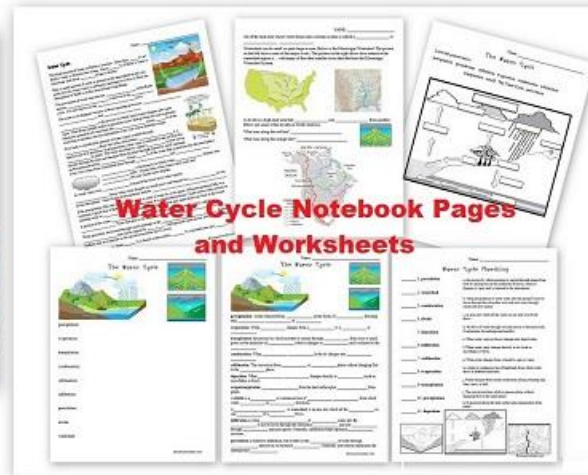
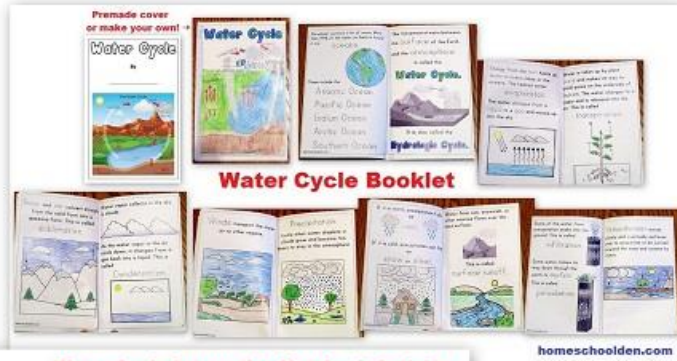
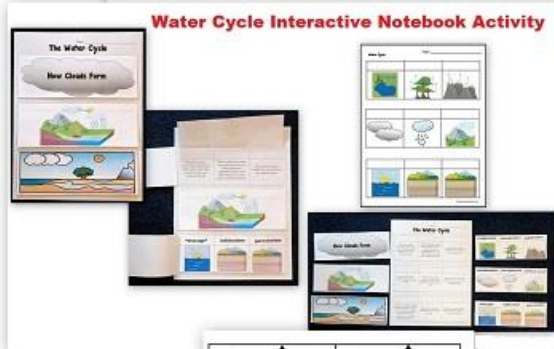
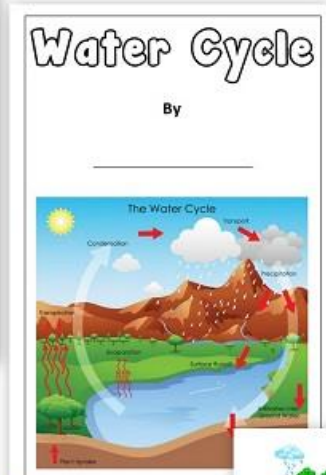


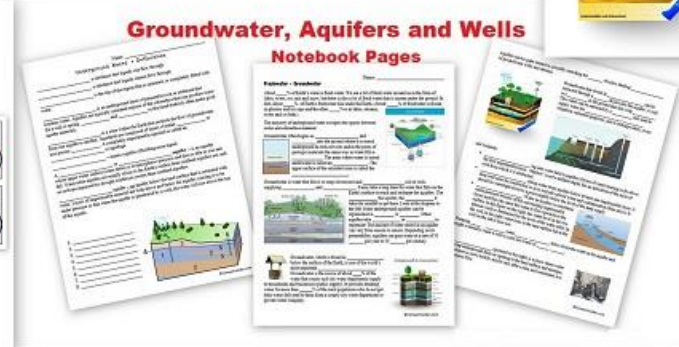
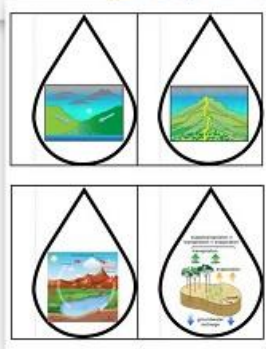
Water Cycle Unit



50+ Pages



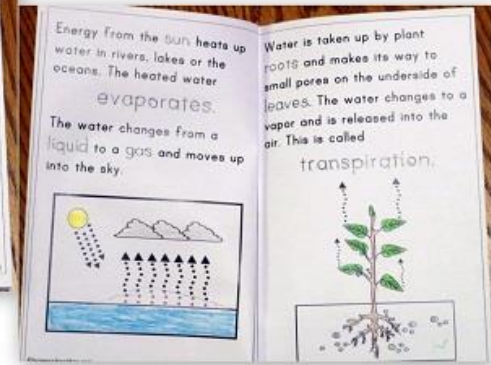
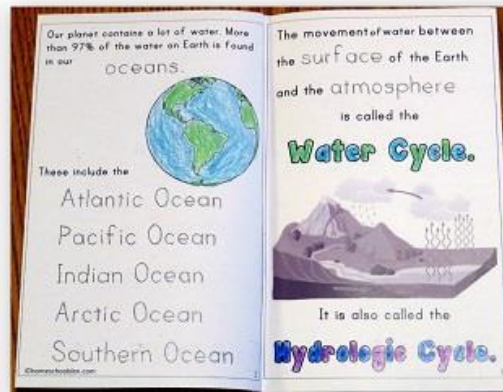
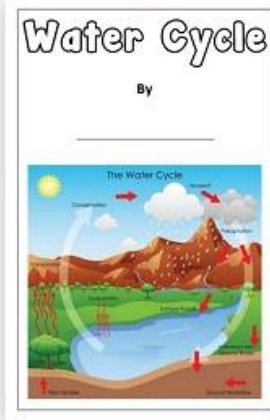
Water Cycle Unit Worksheets, Notebook Pages & Activities



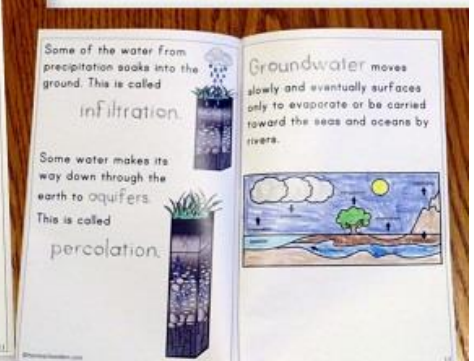
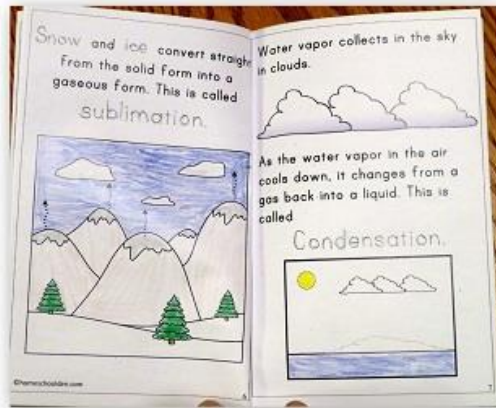
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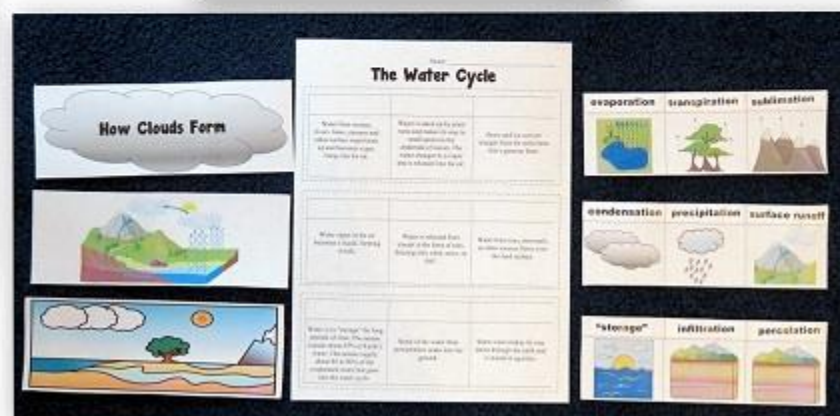
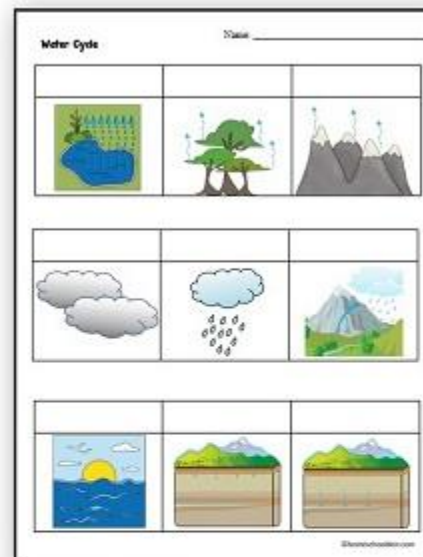
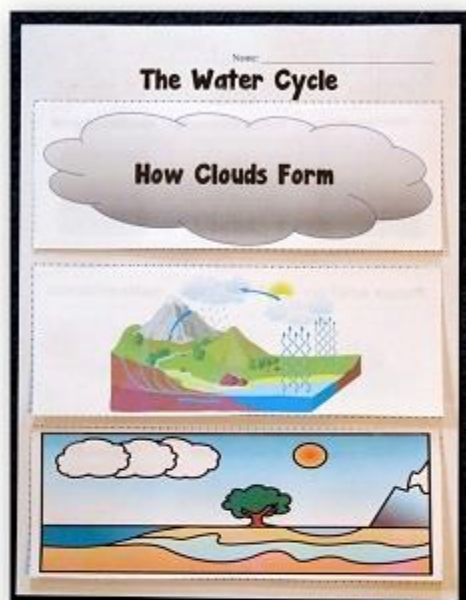
Premade cover
or make your own! →



Water Cycle Booklet



Water Cycle Interactive Notebook Activity








Precipitation

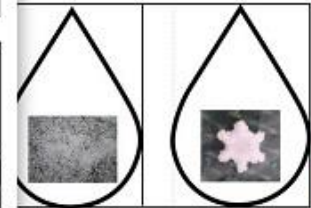
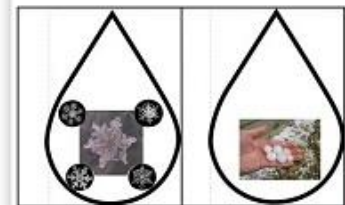
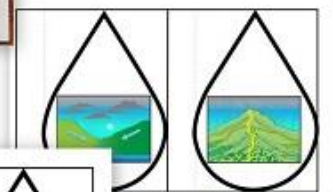
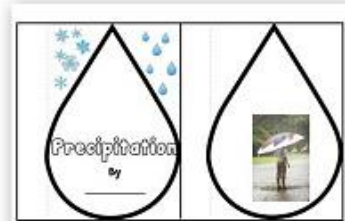
Notebook Page, Cut & Paste Activity or Mini-Booklet

Name: _____

Precipitation

rain	hail
	
Precipitation in the form of water droplets that become heavy enough to fall to Earth's surface.	Fallen ice from rain which fall in showers from cumulonimbus clouds. Hail is produced by cumulonimbus when the hailstone is pelted by layers of ice when it moves with the strong, upward motion of air. Eventually, the hailstone becomes too heavy to be lifted by the updraft and falls to the ground.

snow	sleet	graupel
		
Precipitation in the form of small white ice crystals formed directly from the water vapor of the air at a temperature of less than 32°F.	Precipitation starts as snow, melts up, and then refreezes, it becomes little pellets called sleet.	Precipitation that forms when supercooled water droplets freeze on ice crystals.



precipitation

Precipitation is the form of water droplets that become heavy enough to fall to Earth's surface.

rain

Precipitation in the form of small white ice crystals formed directly from the water vapor of the air at a temperature of less than 32°F.

hail

Fallen ice from rain which fall in showers from cumulonimbus clouds. Hail is produced by cumulonimbus when the hailstone is pelted by layers of ice when it moves with the strong, upward motion of air. Eventually, the hailstone becomes too heavy to be lifted by the updraft and falls to the ground.

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snow

Precipitation that forms when supercooled water droplets freeze on ice crystals.

graupel

Precipitation that forms when supercooled water droplets freeze on ice crystals.

ANSWERS

precipitation

Name: _____

ANSWERS

rain

hail

sleet

snow

graupel

sleet

Precipitation that forms when supercooled water droplets freeze on ice crystals.

hail

Fallen ice from rain which fall in showers from cumulonimbus clouds. Hail is produced by cumulonimbus when the hailstone is pelted by layers of ice when it moves with the strong, upward motion of air. Eventually, the hailstone becomes too heavy to be lifted by the updraft and falls to the ground.

graupel

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rain

Precipitation in the form of water droplets that become heavy enough to fall to Earth's surface.

snow

Precipitation in the form of small white ice crystals formed directly from the water vapor of the air at a temperature of less than 32°F.

The chosen source of all water on land is the oceans.

Evaporation of warmer temperatures water into the atmosphere in the form of invisible water vapor and visible clouds. Winds and weather systems move the atmospheric moisture all over Earth. Precipitation brings moisture moisture back to Earth's surface.

Much of the precipitation that falls on land water the ground through the process of infiltration and percolation and becomes groundwater. Groundwater moves slowly through to the surface through springs, and then flows back to the oceans.

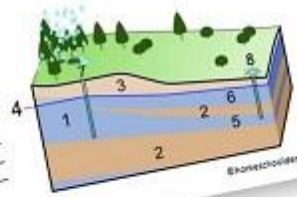
Groundwater, Aquifers and Wells

Notebook Pages

Name: _____

Underground Water - Definitions

_____ is a substance that liquids can flow through.
 _____ is a substance that liquids cannot flow through.
 _____ is the top of the region that is saturated, or completely filled with water.
 _____ is an underground layer of permeable rock or sediment that contains water. Aquifers are typically saturated regions of the subsurface that can produce water for a well or spring. _____ and _____ or fractured bedrock often make good aquifer materials.
 _____ is a zone within the Earth that restricts the flow of groundwater from one aquifer to another. Aquifers are comprised of layers of _____ or non-porous _____. A completely impermeable aquitard is called an _____ or aquiclude.
 _____ means capable of holding more liquid _____ or _____.
 A _____ or _____ aquifer -- is an aquifer whose upper water surface (water table) is at atmospheric pressure, and thus is able to rise and fall. Water-table aquifers are usually closer to the Earth's surface than confined aquifers, and as such are recharged by drought conditions sooner than confined aquifers.
 _____ aquifer ... An aquifer below the land surface that is saturated with water. Layers of impermeable material are both above and below the aquifer, causing it to be under pressure so that when the aquifer is penetrated by a well, the water will rise above the top of the aquifer.



1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

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Name: _____

Freshwater - Groundwater


About _____% of Earth's water is fresh water. We see a lot of fresh water around us in the form of lakes, rivers, ice, rain and snow, but there is also a lot of fresh water that is unseen under the ground. In fact, about _____% of Earth's freshwater lies under the Earth. (About _____% of freshwater is frozen in glaciers and ice caps and the other _____% is in lakes, streams, rivers and so forth.)

The majority of underground water occupies the spaces between rocks and subsurface material.

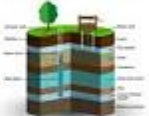
Groundwater often begins as _____ and _____ into the ground where it is stored underground in rock crevices and in the pores of geologic materials the same way as water fills a _____. The areas where water is stored underground is called an _____. The upper surface of the saturated zone is called the _____.



Groundwater is water that flows or seeps downward and _____ soil or rock, supplying _____ and _____. It may take a long time for water that falls on the Earth's surface to reach and recharge the aquifer. The _____ the aquifer, the _____ it takes for rainfall to get there. Look at the diagram to the left. Some underground aquifers can be replenished in _____ or _____. Other aquifers take _____ or _____ to replenish! The amount of water stored in an aquifer can vary from season to season. Depending on its permeability, aquifers can gain water at a rate of 50 _____ per year to 50 _____ per century.



Groundwater, which is found in _____ below the surface of the Earth, is one of the world's most important resources.
 Groundwater is the source of about _____% of the water that county and city water departments supply to households and businesses (public supply). It provides drinking water for more than _____% of the rural population who do not get their water delivered to them from a county/city water department or private water company.



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Aquifers can be quite extensive, possibly stretching for _____ of miles, feeding _____.

Groundwater that stored in _____ can be extracted through a _____ drilled into the aquifer. A well is a _____ in the ground that fills with _____ apply water for _____ and used to _____ irrigation, industrial purposes, and to recharge lakes, rivers and wetlands.

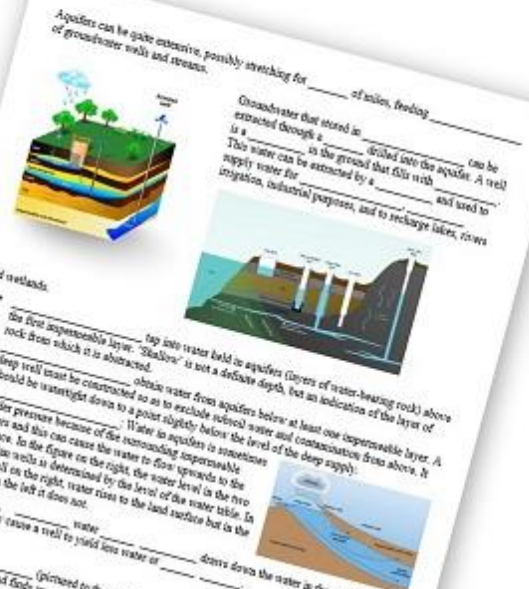
_____ tap into water held in aquifers (layers of water-bearing rock) above the first impermeable layer. "Shallow" is not a definite depth, but an indication of the layer of rock from which it is abstracted.

_____ deep well must be constructed so as to exclude surface water and contamination from above. It should be water-tight down to a point slightly below the level of the deep supply.

_____ obtain water from aquifers below at least one impermeable layer. A _____ under pressure because of the surrounding impermeable layers and this can cause the water to flow upwards to the surface. In the figure on the right, the water level in the two artesian wells is determined by the level of the water table. In the well on the right, water rises to the land surface but in the well on the left it does not.

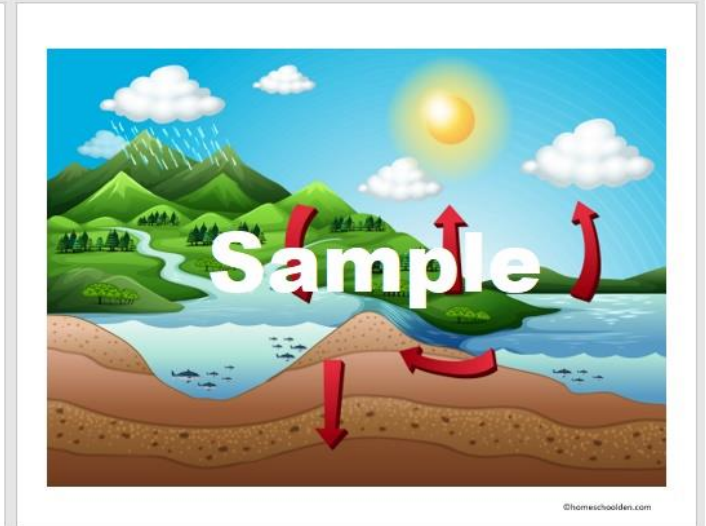
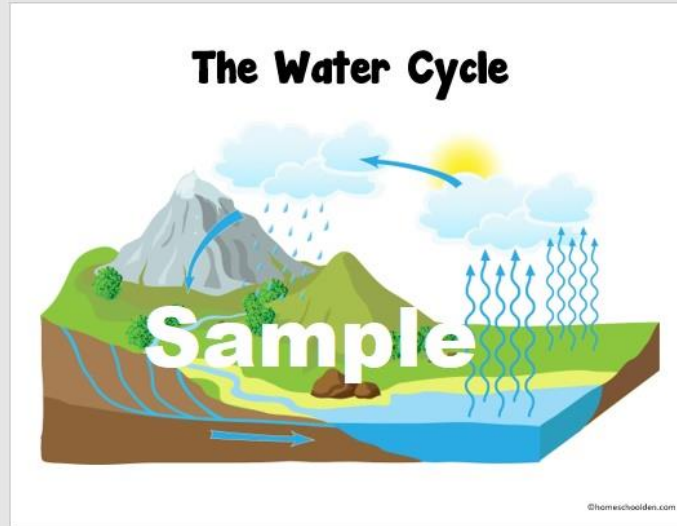
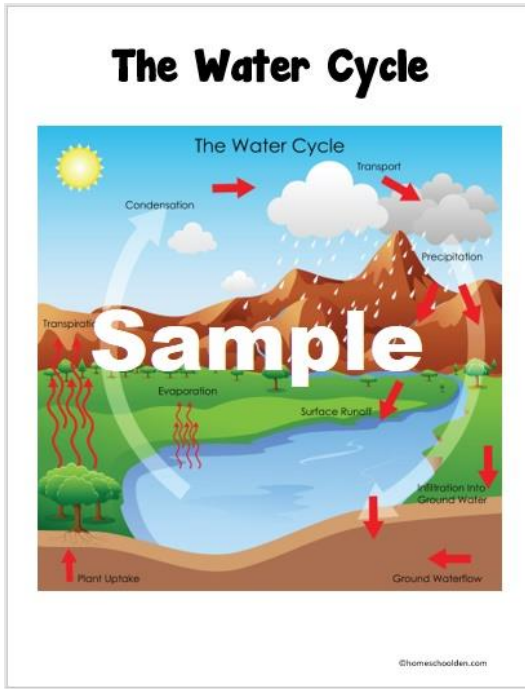
_____ water _____ down the water in the aquifer and might eventually cause a well to yield less water or _____.

_____ (pictured to the right) is a place where water enters as just a trickle, maybe only after a rain, and continues in a _____ down.



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There are also some printable Water Cycle Posters provided:



Have your students determine how much water their family uses on a daily basis!

Name: _____

What is Your Daily Water Use?

	Water Used:	Number of Times:	Gallons Used:
Flush the Toilet	4 gallons per flush	How many times do you and your family go to the toilet each day?	
Rinse the Dishwasher	gallons per load	How many times per day?	
Take a Bath	gallons for a full tub	How many baths does your family take each day?	
Laundry	gallons per load	How many loads does your family do each day?	

	Water Used:	Total Minutes:	Gallons Used:
Wash Your Hands	gallons per minute		
Brush Your Teeth	4 gallons per minute		
Take a Shower	gallons per minute	How long is your shower? How many people shower in your home each day?	
Wash Dishes by Hand	4 gallons per minute		
Water the Yard with a Hose	gallons per minute		

Total Gallons Used: _____

