

Name: _____ Date: _____ Block: _____

Unit 5: Hydrosphere – Rivers, Streams, & Groundwater Review Sheet

Water Pollution Chart & Questions: Fill out the chart and answer the questions.

Types of Water Pollution:	Examples of pollutants:	How it affects the water system?
Agricultural Pollution	pesticides leaching, fertilizer animal waste	* Runoff of excess nutrients. → eutrophication * Pollute groundwater.
Sediment Pollution	Erosion of soil / rock	* Harm aquatic organism * plants cannot grow * Not potable (drinkable) * clogs pipes / drains.
Toxic Chemicals *includes oil	* lead * Mercury * Oil	* Oil harms / kills ocean animals * Health problems → nervous system + brain.
Saltwater Intrusion	* ocean water	* Too much salt → pollutes our drinking water
Carbon Dioxide	* CO ₂	* Ocean acidification → * harms organisms * Coral bleaching (kills)
Garbage	* plastic * glass	* Animals eat eat it → death * Animals get trapped in it.

1. What is the biggest water polluter of streams, rivers, etc.?

Sediment pollution → why? erosion

2. What is eutrophication? What causes eutrophication?

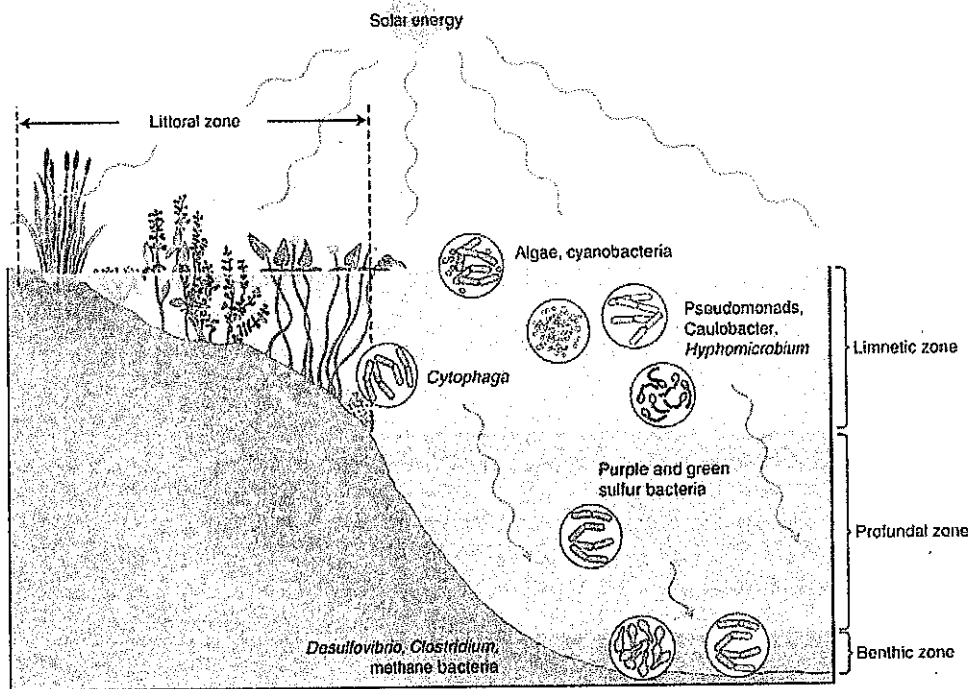
Runoff of excess nutrients → causes algae growth →
→ depleted O₂ → fish kills.

Point vs. Non-Point Source Pollution Questions: Answer the questions.

1. What is the difference between point and non-point source pollution?
point → comes from one identifiable source (1)
non-point → comes from many unidentifiable sources (many)
2. List two examples of point source pollution.
* specific factory * leaking tank
* broken pipe * oil spill
3. List two examples of non-point source pollution.
* Runoff (farms, homes, cities)

Water resources Questions: Answer the questions.

1. Water resources are (limited/numerous) in the United States. Many water sources in the United States are (potable/polluted) and (not equally/equally) distributed across the U.S.
2. Determine if each aquatic biome contains freshwater, saltwater, or both:
 - a. Estuary - both
 - b. Wetland - fresh
 - c. Lake - fresh
 - d. River - fresh
 - e. Stream - fresh
 - f. Ocean - salty.
3. Use the picture below to determine the answers about lake layers.
 - a. What are the four layers of a lake? Littoral zone, Limnetic zone, Profundal zone, + Benthic zone.
 - b. Which layer gets the most sunlight? Littoral - top layer.
 - c. Which layer gets the least sunlight? Benthic - bottom layer.



4. What is the percentage of salt water and freshwater on Earth?

97% 3%

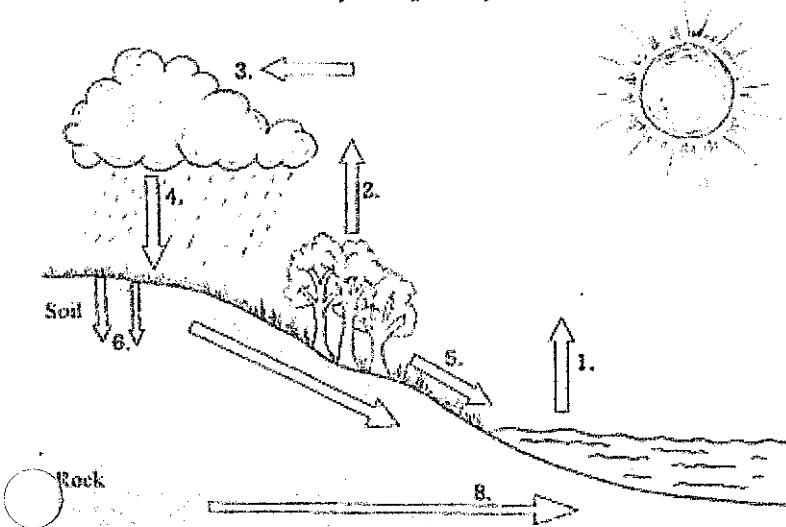
5. What are three examples of freshwater resources on Earth?

Lakes, Streams, Rivers, Ponds, Glaciers, Icebergs.

6. Water that is clean enough to drink is called potable water.

Hydrological Cycle Questions: Fill out the diagram and answer the questions.

The Hydrological Cycle



Use the word bank to answer #1-6.

Condensation, Evaporation,
Precipitation, Transpiration, Runoff,
Infiltration

1. Evaporation
2. Transpiration
3. Condensation
4. Precipitation
5. runoff
6. Infiltration

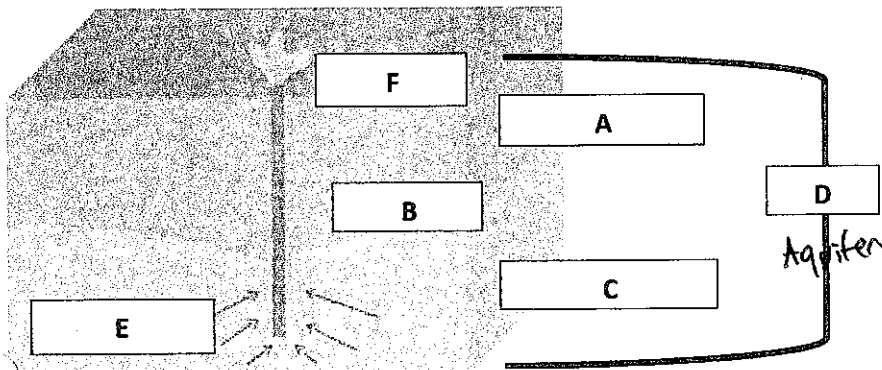
1. How does the amount of water on Earth change as it goes through the water cycle? *trick question

It hasn't changed → water on Earth is the same amount

2. What does a watershed/river basin do?

It drains all of the water into rivers, streams / lakes.

Groundwater Questions: Fill out the diagram & answer the questions.



Use the word bank to answer letter A-F.

Saturated zone, unsaturated zone,
Aquifer, Groundwater, Water Table,
Well

- A unsaturated
- B water table.
- C saturated
- D Aquifer
- E Groundwater.
- F well

1. What is the difference between permeability and porosity?

permeability → ability of water to pass through.
porosity → (pores) spaces between soil/rock

2. Most groundwater is used for farming in the U.S.

3. How does groundwater get polluted? (two ways)

Farm runoff → can infiltrate into the ground.
 chemicals, oils, waste, etc → can infiltrate

Water Quality Chart & Questions: Fill out the chart and answer the questions.

Water Quality Indicators:	What it measures?	How it affects the water system?	What is it affected by?
Dissolved oxygen	oxygen level in water	↓ kills organisms	- temperature - water speed - altitude - plant presence
Temperature	how hot/cold it is.	↓ affect metabolism + reproduction rates.	- turbidity - speed - seasons
pH	acidity/basic	* affects if they can live in it.	- Acid rain - soil pH.
Turbidity	cloudiness	- prevents plants from growing / block sunlight.	* affects temperature + oxygen levels.
Nutrients	↑ phosphorus / nitrogen	- excess nutrients lead to eutrophication	* runoff from farms + animal waste

1. What is the purpose of testing water quality?

to see if the water is healthy.

2. How does thermal pollution of water affect the water system?

Kills organisms

3. How can does the pH of soil affect acid rain?

buffers acid rain to make water neutral

Flooding & Drought Questions:

1. When precipitation is higher than evaporate there is water (excess/shortage).

2. When evaporation is higher than precipitation there is water (excess/shortage).

3. What is another name for water shortage?

drought

4. What is one way to prevent flooding?

artificial levee

5. Why are floodplains important to agriculture?

increase the fertility (health) of soil.