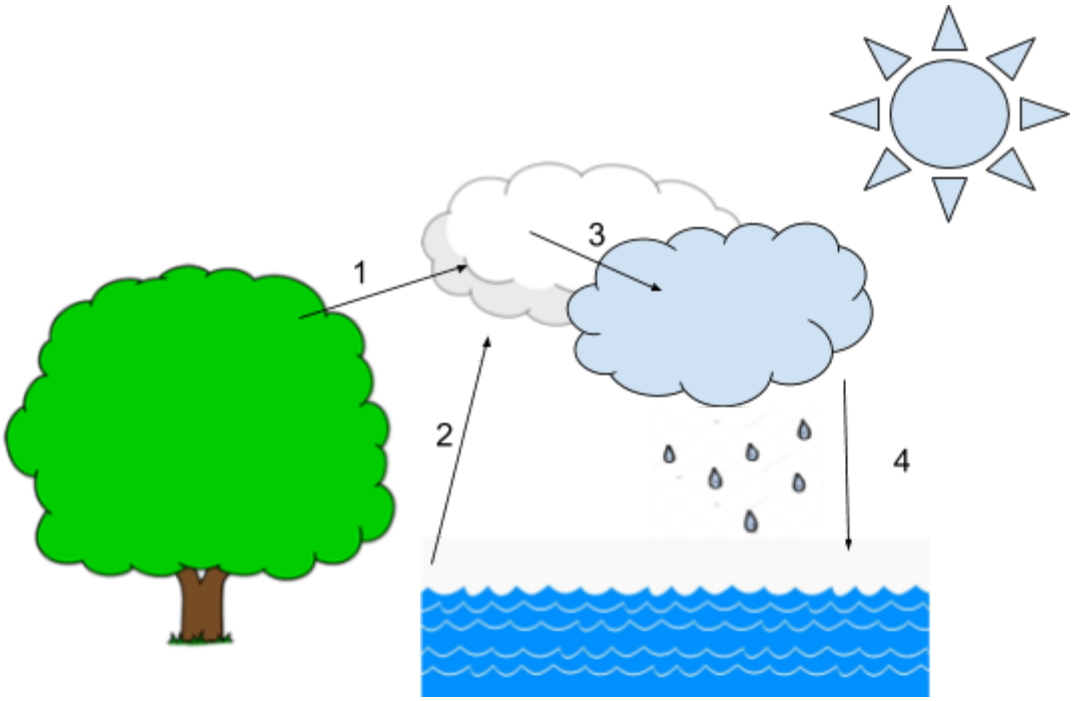
Name: _____

Hydrosphere Review

Water Cycle: Label each part of the water cycle and explain what happens during that step.

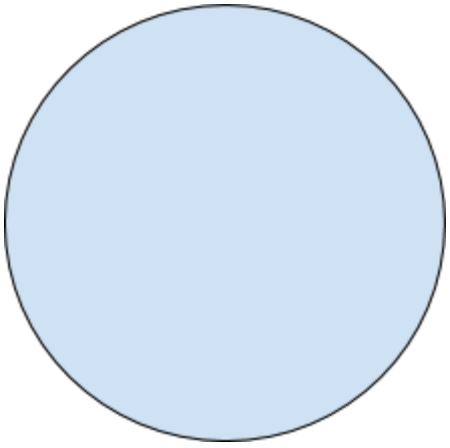


1. _____:
2. _____:
3. _____:
4. _____:

Word Bank: Transpiration, Evaporation, Condensation, Precipitation

Water Distribution: Fill out the table with the correct percentages, then draw a pie chart to demonstrate the difference between saltwater and freshwater.

Oceans	%
Ice Caps & Glaciers	%
Unavailable Fresh Water	%
Potable Water	%



What does the word “potable” mean?

Where can unavailable freshwater be found?

Where else is freshwater found, other than glaciers, rivers, and streams? (Think underground.)

Water Conservation: List a few good examples of how to conserve water.
-
-
-
-
-

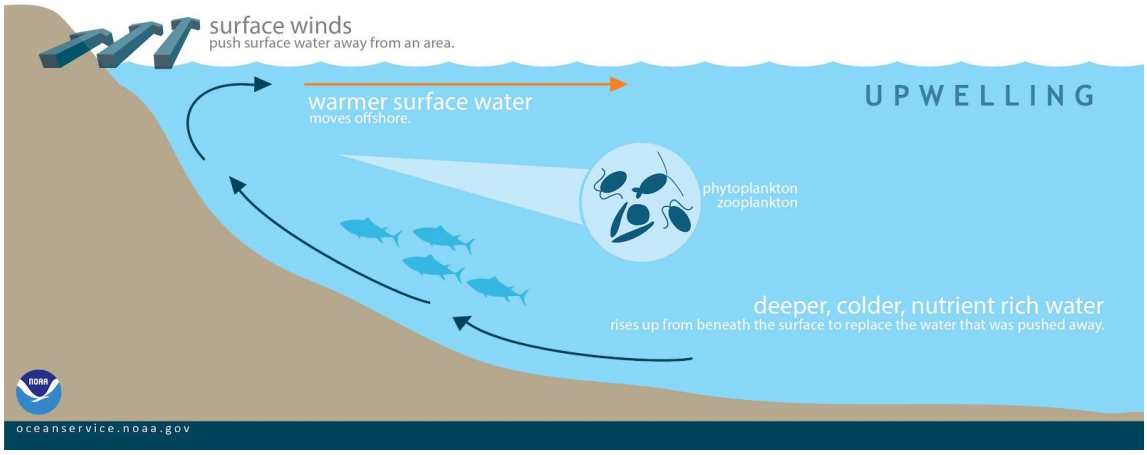
Why is it important to conserve water?

Oceans: Draw the ocean zones using the following terms: intertidal zone, neritic zone, open-ocean zone, surface zone, transition zone, deep zone, continental shelf, continental slope and provide examples of what lives in each zone.

- What is the relationship between amount of sunlight and water temperature?
- What is the relationship between water temperature and amount of dissolved oxygen?
- Based on this relationship, where will the most dissolved oxygen be located in the ocean?
- Why does the ocean need dissolved gases?
- Where do these dissolved gases come from?
- What is the dissolved carbon dioxide (CO_2) used for in the ocean?
- Where are hydrothermal vents located? What are their significance? Instead of photosynthesis, organisms near hydrothermal vents live off chemosynthesis. What does this mean?

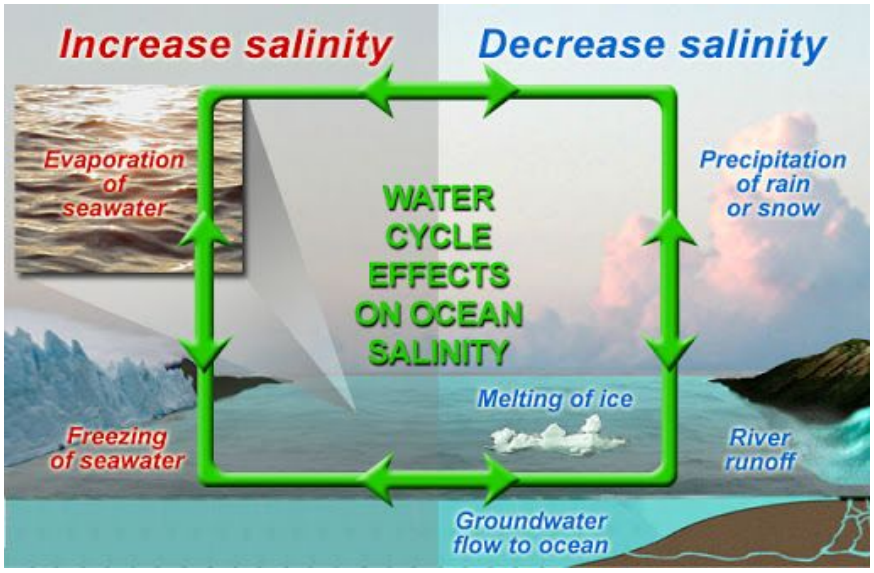
- What is sonar?

Look at this picture of upwelling to answer the following questions.



- What is the purpose of upwelling?
- If upwelling stopped, what would happen to the aquatic ecosystems in that area?
- What are the “nutrients” that upwelling talks about?
- Phytoplankton are microscopic organisms that form the basis of the oceanic ecosystem. They are producers, because they make their own food by photosynthesis.

Look at the image below to answer the following questions.



- How does the water cycle affect the salinity of water?

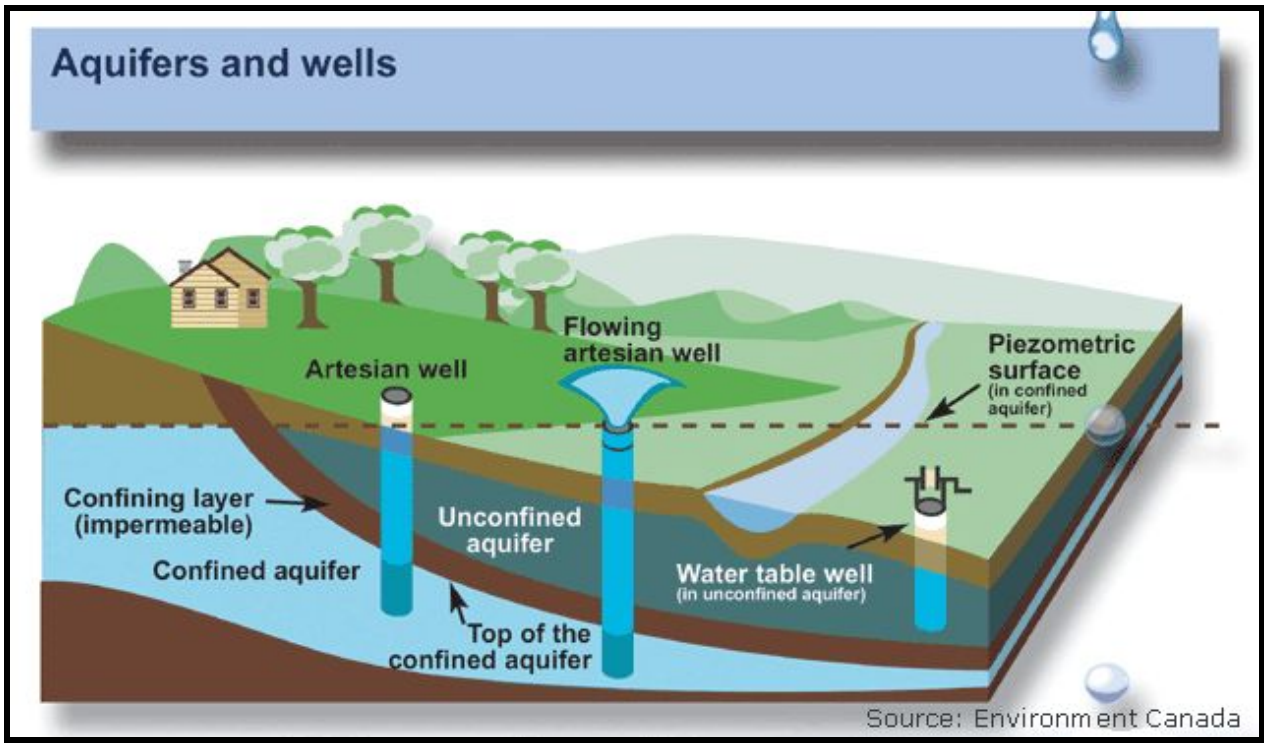
- When more water is added to the ocean through precipitation, salinity _____.

- When water is taken away from the ocean through evaporation, salinity _____.

<u>Freshwater and Water Quality</u>: Answer the following questions.

What is the definition of a river basin? It is important to note that EVERYONE lives in a river basin, because all water eventually flows into a river.

Using this image, explain what an aquifer is and its importance for freshwater availability on Earth. Explain (and label) the difference between permeable and impermeable.



Draw a picture of a vegetative buffer. What is its significance?

There are three types of water quality indicators. Use your knowledge to fill out the table below, explaining what each indicator means/what it measures.

Bioindicators	Chemical Indicators	Physical Indicators
-tolerant species: -intolerant species:	-pH: -dissolved oxygen: -Nitrates & Phosphates:	-temperature: -turbidity:

What is the purpose of each of the following steps in the water treatment process?

- Sedimentation:

- Chlorination:

[redacted]