

Learning Objectives:

- I can identify the permeability of different materials.

Bellringer Pre-Assessment:

- What is the water cycle, or name at least major three parts to it.

Check for Understanding Questions:

- What is an aquifer?
- How can our waste or pollution affect our drinking water?

Watercycle review

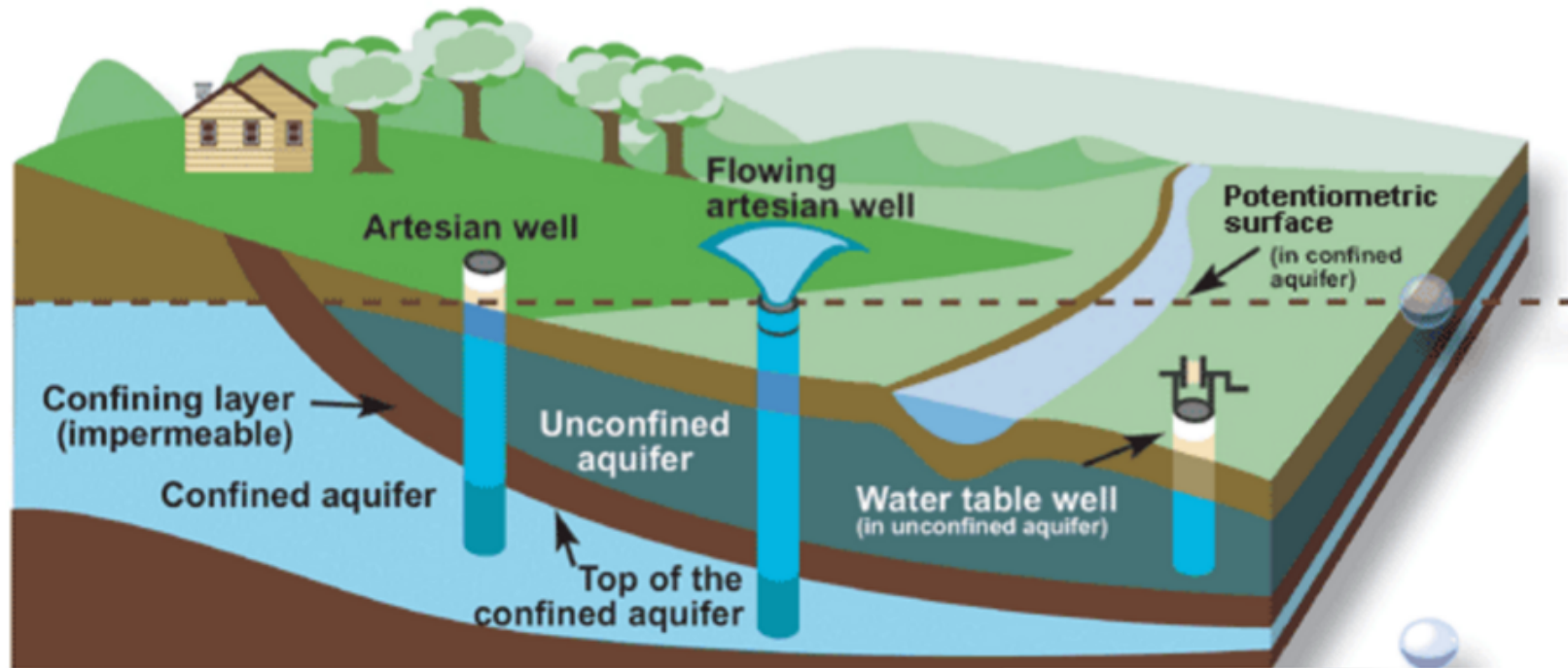
What are the three main parts to the water cycle?

Aquifer: is from the Latin aqua (meaning "water") and ferre (meaning "to bear")

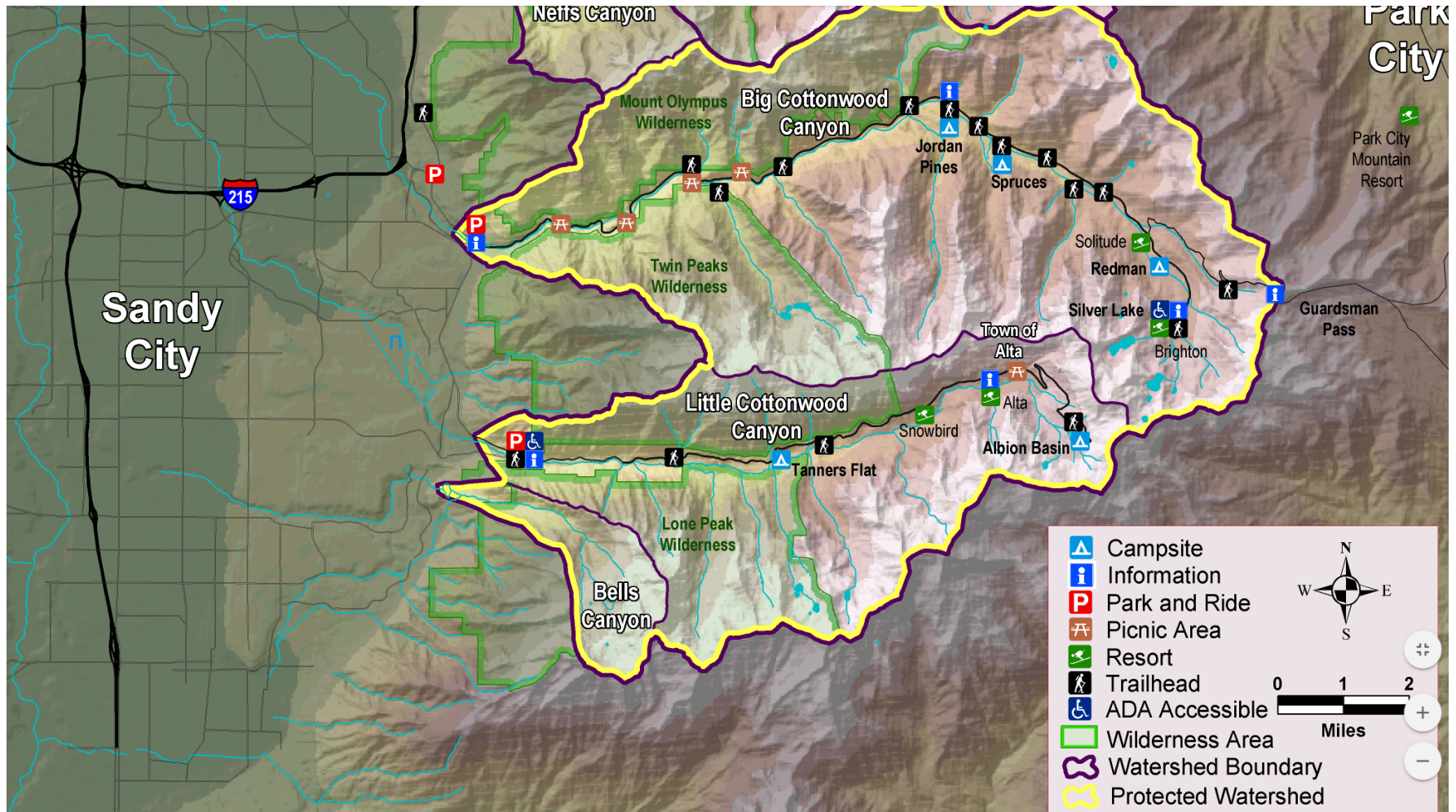
Sediment or rock that contains or transmits water easily.

An aquifer literally bears water. Some aquifers are massive, such as the Ogallala Aquifer in the United States that stretches across parts of eight states from South Dakota to Texas. But not massive enough — we're draining them faster than the water can be replenished.

Aquifers and wells

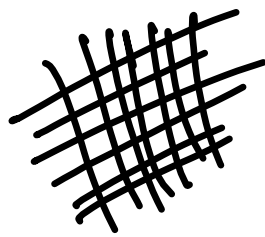


Source: Environment Canada, USGS



Activity

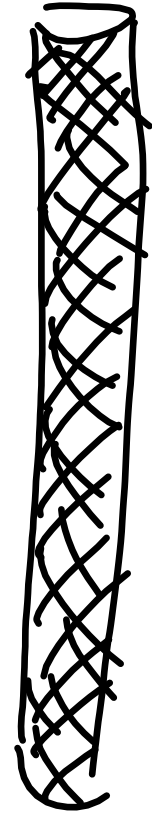
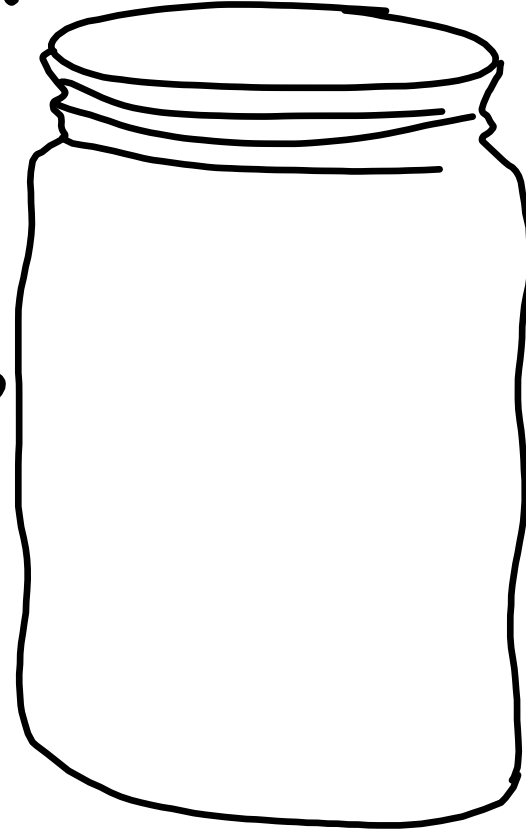
①



Roll mesh into tube and place in the middle.

②

Place pebbles in the bottom and Add dirt & Sand above.



Activity Discussion questions

- How many minutes did it take for the contamination to reach the groundwater?
- How long did it take for the contaminated water to reach the well?
- When did you notice the biggest changes in your model?
- When did the changes begin to slow down?
- How could this model be changed to allow the water to travel faster?
Slower?
- How could you have better protected the well in your model?
- Compare the color of your well water to the original polluted water.
Why were they different?
- Discuss the relationship between water contamination at the surface and water contamination under the ground. Which do you think is easier to remediate and why?

Check for Understanding Questions:

- What is an aquifer?
- How can our waste or pollution affect our drinking water?

Learning Objectives: Did you accomplish them?

- I can identify the permeability of different materials.

Self-Evaluation

- How well did you understand the material today?
(1-Lost, 2- understand, 3-can teach it)
- How well did you and your team members participate in class?
(1-didn't do anything, 2-Bare minimum, 3-fully participated)