Water, Water Everywhere

Name ____________________________

atmosphere-clouds-wetlands-glaciers-snow-soil
What is Water?

- “Hydro”: ___________ word for “water.”

- __________________: the study of water.

- __________________: a person who studies the flow of water around Earth.

- Water is made up of _____ hydrogen atoms and _____ oxygen atom (that’s how we get ____)

- Water comes in three states: _______________ (ice), _______________ (water), and _____________ (steam/ vapor)

**Directions:** Label the large circle [atom] **O** (for oxygen) and the two smaller circles [atoms] **H** (for hydrogen). Color the molecule when you are done.
Earth’s Water Sources

- Earth is sometimes called the “_________ Planet”

- _______________: all the waters on Earth’s surface, such as lakes and seas, and sometimes including water over the Earth’s surface, such as clouds.

- On Earth, water is found in these places:
  - _______________ ________________ [oceans, estuaries, and coral reefs]
  - _______________ ________________ [ponds, lakes, streams, rivers, swamps, and wetlands]

- _______________ ________________, _______________ ________________, _______________ ________________, _______________ ________________, _______________ ________________, _______________ ________________, _______________ ________________

- _______________ Water: water that collects on the ground; this is the most attainable type of water.

- ____% of the Earth’s land mass is made up of glaciers and ice caps.

- Earth’s atmosphere contains ~12, 900 ___________ kilometers (~3.04 US liquid ________________) of water.
Where is All the Water?
What is Water?

- **“Hydro”**: Greek word for “water.”
- **Hydrology**: the study of water.
- **Hydrologist**: a person who studies the flow of water around Earth.
- Water is made up of 2 hydrogen atoms and 1 oxygen atom (that’s how we get $\text{H}_2\text{O}$)
- Water comes in three states: solid (ice), liquid (water), and gas (steam/vapor)
Earth’s Water Sources

- Earth is sometimes called the “Blue Planet”

- **Hydrosphere**: all the waters on Earth’s surface, such as lakes and seas, and sometimes including water over the Earth’s surface, such as clouds.

- On Earth, water is found in these places:
  - **Marine Biome** [oceans, estuaries, and coral reefs]
  - **Freshwater Biome** [ponds, lakes, streams, rivers, swamps, and wetlands]
  - Ice caps, glaciers, permanent snow, soil moisture, ground ice, permafrost, atmosphere

  - **Surface Water**: water that collects on the ground; this is the most attainable type of water.

  - 10% of the Earth’s land mass is made up of glaciers and ice caps.

  - Earth’s atmosphere contains ~12, 900 **cubic** kilometers (~3.04 US liquid **gallons**) of water.
Where is All the Water?

- **Total global water**
  - Oceans 96.5%
  - Freshwater 2.5%
  - Other saline water 0.9%

- **Freshwater**
  - Groundwater 30.1%
  - Glaciers and ice caps 68.7%
  - Surface/other freshwater 1.2%

- **Surface water and other freshwater**
  - Lakes 20.9%
  - Ground ice and permafrost 69.0%
  - Atmosphere 3.0%
  - Living things 0.26%
  - Soil moisture 3.8%
  - Swamps, marshes 2.6%
  - Rivers 0.49%