

## **Poster Contest Fact Sheet**

2025 Theme:

# **Water's Many Powers**

You can be part of this important cause by designing a poster to educate, inspire, or motivate people about drinking water and our water resources!

### **WATER'S MANY POWERS**

- Water provides the essential ingredients that power life.
  - People (and all animals) need water for breathing, transporting nutrients to our cells, and regulating our body temperature.
  - Plants use water, carbon dioxide, and sunlight to create food through photosynthesis.
- Water is a powerful force of nature. It can transform the environment through erosion, flooding, precipitation, and drought.
- Water can be used to generate electricity by constructing a dam in a river. This is called hydropower.
  - Hydropower doesn't emit carbon dioxide the way that burning fossil fuel does, so it has less impact on climate change.
  - However, hydropower does have environmental impacts because dams cause upstream flooding and prevent fish from migrating.

## WATER AND EARTH

- The earth contains about 326 million trillion gallons (326,000,000,000,000,000,000) of water.
- Less than *1 percent* of all the earth's water is accessible for human use. The rest, 99 percent, is either salt water in the oceans, fresh water frozen in the polar ice caps, or groundwater in underground aquifers.
- Water is constantly moving on the earth's surface, through living creatures, and in the atmosphere through the water cycle.
- Climate change is affecting precipitation patterns, leading to more droughts and floods across the world.
- During the last ice age, Vermont was covered by glaciers, which are made of ice (frozen water). After this, part of Vermont was under an ocean (salt water) called the Champlain Sea.



#### **PEOPLE & WATER**

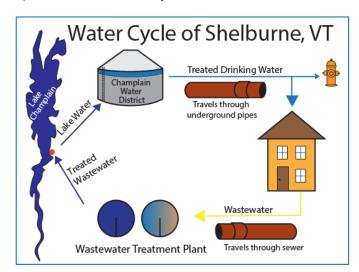
- Humans need to consume about 8 glasses (two liters) of water per day. A person can only survive without water for about 3 days.
- Our bodies lose water when we breathe, sweat, cry, and go to the bathroom.
- Each American uses about 80-100 gallons of water per day.
- The largest household use of water is to flush the toilet. The second largest water use is showering and bathing.

#### **DRINKING WATER**

- Drinking water can come from surface water (a river, lake, or reservoir) or groundwater (a well or spring).
- About one-third of homes in Vermont get their water from a private well or spring.
  The other two-thirds get their water from a public water system. There are 413 community water systems in Vermont.
- Approximately 785 million people around the world don't have safe drinking water.

## **WATER TREATMENT** The steps of water treatment are:

- 1. **Pump** the water from the source to the treatment plant.
- 2. **Treat** the water to remove bacteria and other pathogens, naturally occurring contaminants, and/or man-made pollutants if necessary.
- 3. **Store** the water in storage tanks until it is needed.
- 4. **Use** the water for drinking, cooking, or cleaning.
- 5. **Flush** used water down the drain.
- 6. **Treat** the used water at a wastewater treatment facility.
- 7. **Return** the clean water to a lake or river.
- 8. Repeat the cycle!



## **PROTECT & CONSERVE WATER**



- Fill reusable water bottles. Tap water is cheaper and better for the planet than bottled water.
- Encourage your family to switch to water-saving showerheads and toilets.
- Fix leaking pipes, sinks, and toilets.
- Become a drinking water operator or wastewater operator when you grow up!