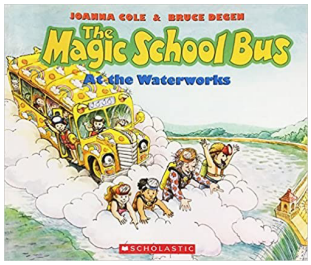
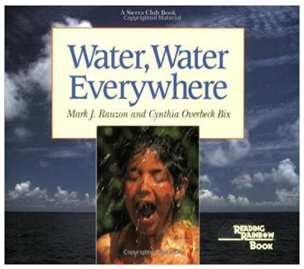
# Roots

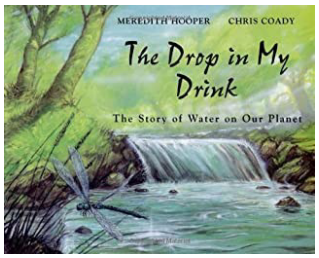
Digging Deeper into Soil & Water Resources

# WONDERS OF WATER

## LITERACY CONNECTIONS




Water is a very unique resource because it can be found in 3 **different forms**; water, vapor and ice. It can change back and forth between these forms with a change in the temperature. Each of these forms has special qualities and uses. Ice, the solid form, is great to put in a drink on a warm summer's day and provides a source of entertainment through ice skating in the winter months. Steam, the vapor form in a gaseous state, warns us when things are hot and transports water from earth to sky. Water, the liquid form, is essential to all life. It keeps us clean and healthy, provides entertainment through recreation and supplies a transportation highway for boats.

Water is everywhere. We use it everyday in our homes to drink, cook and bathe. Have you ever thought about how water gets to your house? With a simple turn of the faucet, water magically pours out. Of course, it is not that simple!


Water for our homes comes from different locations depending on where we live. Sources include local rivers, reservoirs and even underground. Water from lakes, rivers and reservoirs travels through underground pipes to a treatment plant where it goes through a filtering and **cleaning process** to ensure that it is safe for us to drink before entering another set of underground pipes that delivers it to our houses. **Groundwater** is tapped and pumped up through a well to reach our homes. In both cases, many people are hard at work "behind the scenes" to make sure the water is available when you turn on the faucet!

Water is a finite resource. We have the same water today that has been here forever. This means we need to **take care** of this precious resource, only using what we need and being careful not to pollute it with litter and chemicals. Water is the most recycled resource we have!

### Did You Know?

There is a National Drinking Water Week to recognize what it takes to provide pure, clean water to our homes everyday!

- **National Drinking Water Week**
- **American Water Works Association**

### How Important is Water?

Estimate how many times a day you and your family use water at home (think about drinking, cooking, bathing, etc.).

Keep track for one day to see if your estimate is correct.

You might be surprised!

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# WONDERS OF WATER

## EXPLORING THE WONDERS OF WATER

**It's time to explore the wonders of water! Let's do a few experiments with water at home:**

**Supplies**:
- A shallow bowl of water
- Cloth or paper towels for any spills

*Activity 1:*
- A variety of natural and unnatural objects (like a Lego block, paper clip, coin, pine cone, leaf, etc.)

*Activity 2:*
- Eye dropper
- Food coloring
- Vegetable Oil, Olive Oil, Maple Syrup, etc.

**Procedure:**
- Fill the bowl 1/2 to 2/3 with water

*Activity 1:*
- One at a time take the different objects you collected and see which ones float and which ones sink
- Place the objects in piles of which float and which sink, observe the similarities and differences between the groups

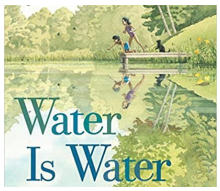
*Activity 2:*
- Put a drop of food coloring in the bowl and watch how it spreads out
- Observe what happens when you stir it
- Add a drop of cooking oil to the water, see how it reacts and if anything happens when you stir it
- Try this with each of the other liquids you want to test

## ADDITIONAL RESOURCES

**How Does Water Get to Your House?**

**CCWSA Water/Wastewater EnviroScape Demonstration**

***Water is Water* Read Aloud**




**Water is Water Song**

***Into the River!* University of Dayton**

***Water Cycle Boogie*—Banana Slug String Band**

## GIVE IT A TRY!!

Create a family challenge:

- Who can float the most paper clips in a glass of water ?
- Who can fit the most drops of water on the surface of a penny?

These challenges and more are part of the **Project WET** activity: ***H2Olympics***

## QUESTIONS TO EXTEND LEARNING:

- What did the objects that floated have in common?
- Why do you think some liquids mixed with the water, while others did not?
- Did you notice that some liquids floated on the water and others did not? Why do you think that is?

Many fruits and vegetables are high in water content including:

Tomatoes & Zucchini—95%
Watermelon & Broccoli—90%
Oranges & Carrots—87%
Grapes & White potatoes—80%

*Curious about your favorite fruit or vegetable? Check out MyFoodData to learn which vegetables have the highest water content*



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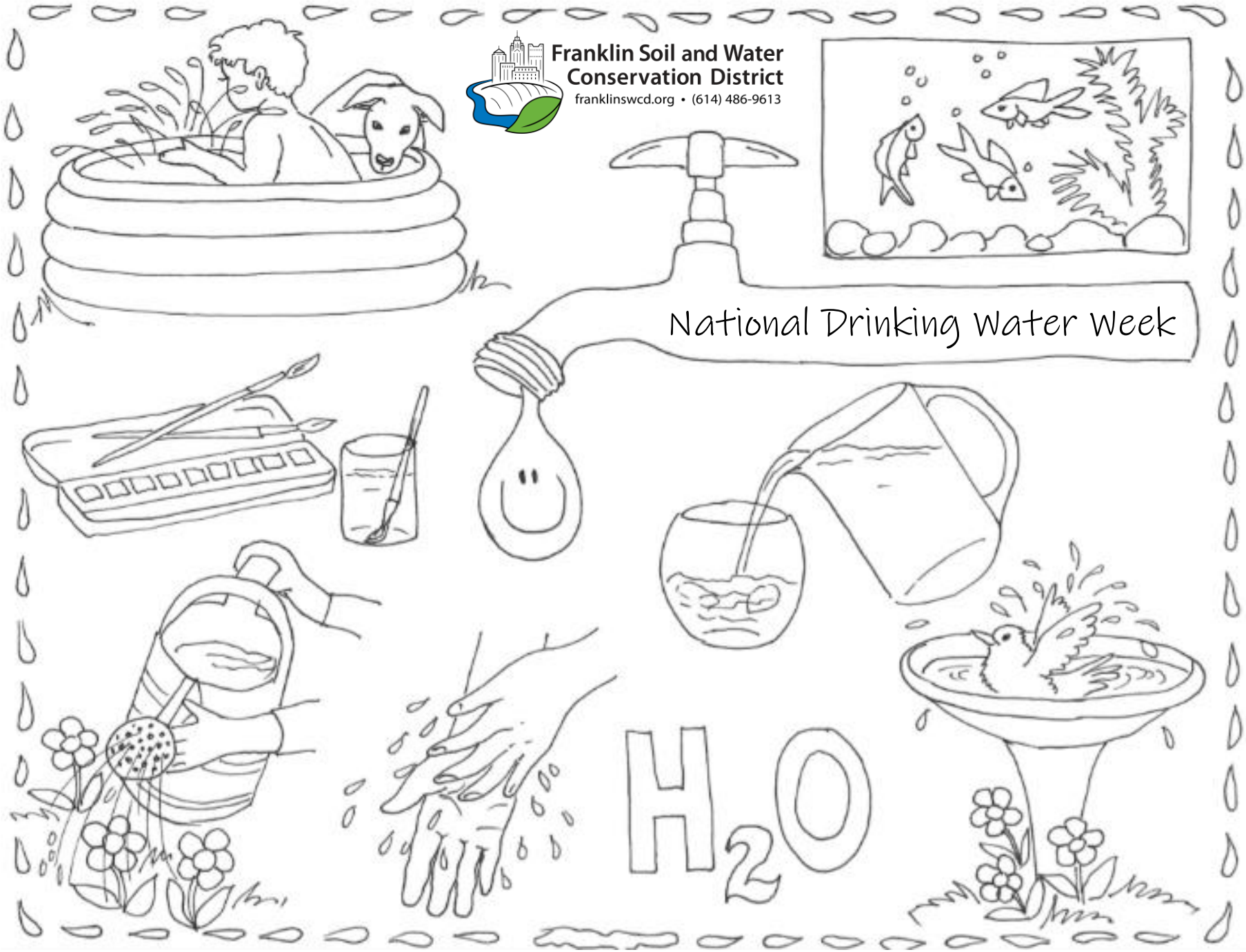
# WONDERS OF WATER

Name: _____




Water plays a vital role in our daily lives. Circle all the ways you use water!