

# PIPE UP!

A game by **American Water Works Association** and **Water Environment Federation**

FOR  
AGES  
8+

## DELIVERING SAFE AND CLEAN WATER IS A **BIG DEAL!**

### Almost everything we do requires water

but did you know there's only a set amount of water on our planet? It's up to all of us to work together to make sure we protect our water and use it responsibly, so that it's available now and way into the future.

Our friends in the water sector are always working to make sure that we have the safest and cleanest water possible. They treat our water and wastewater and maintain the systems that make it possible for us to use today, and to safely send it on to our neighbors downstream tomorrow.

Help build the systems that deliver our water and make sure you, your family and friends have access to clean water!

### PUZZLE SETUP:

1. Place obstacles on the "O" squares.
2. Place broken pipes on the "P" squares.
3. Place the start tile on the "S" square.
4. Place the finish tile on the "F" square.
5. You may only use the number of each type of pipe shown next to the game map.

### HOW TO PLAY:

1. Route the water from start to finish by using your pipe tiles.
2. Fix each broken pipe on the board by replacing the pipe with any new pipe card.
3. Each pipe tile card may be rotated in any direction.
4. Pipes cannot be placed on top of obstacle tiles.
5. You must use ALL of your pipe tiles.



American Water Works  
Association

 Water Environment  
Federation  
the water quality people™

  
MesaWater  
DISTRICT®

# PIPE UP! WHAT A DAY!

It's been a busy day and you're ready for bed, but first Mom and Dad insist that you take a bath and brush your teeth.



## PUZZLE SETUP:

Make sure you've got the clean, safe water you need to scrub yourself down tonight and be ready to play again tomorrow! Use the game pieces to build a working system of pipes that gets around those pesky obstacles and safely delivers clean water from start to finish!



**S:** Start tile  
**P:** Broken pipe tiles

**F:** Finish tile  
**O:** Obstacle tiles

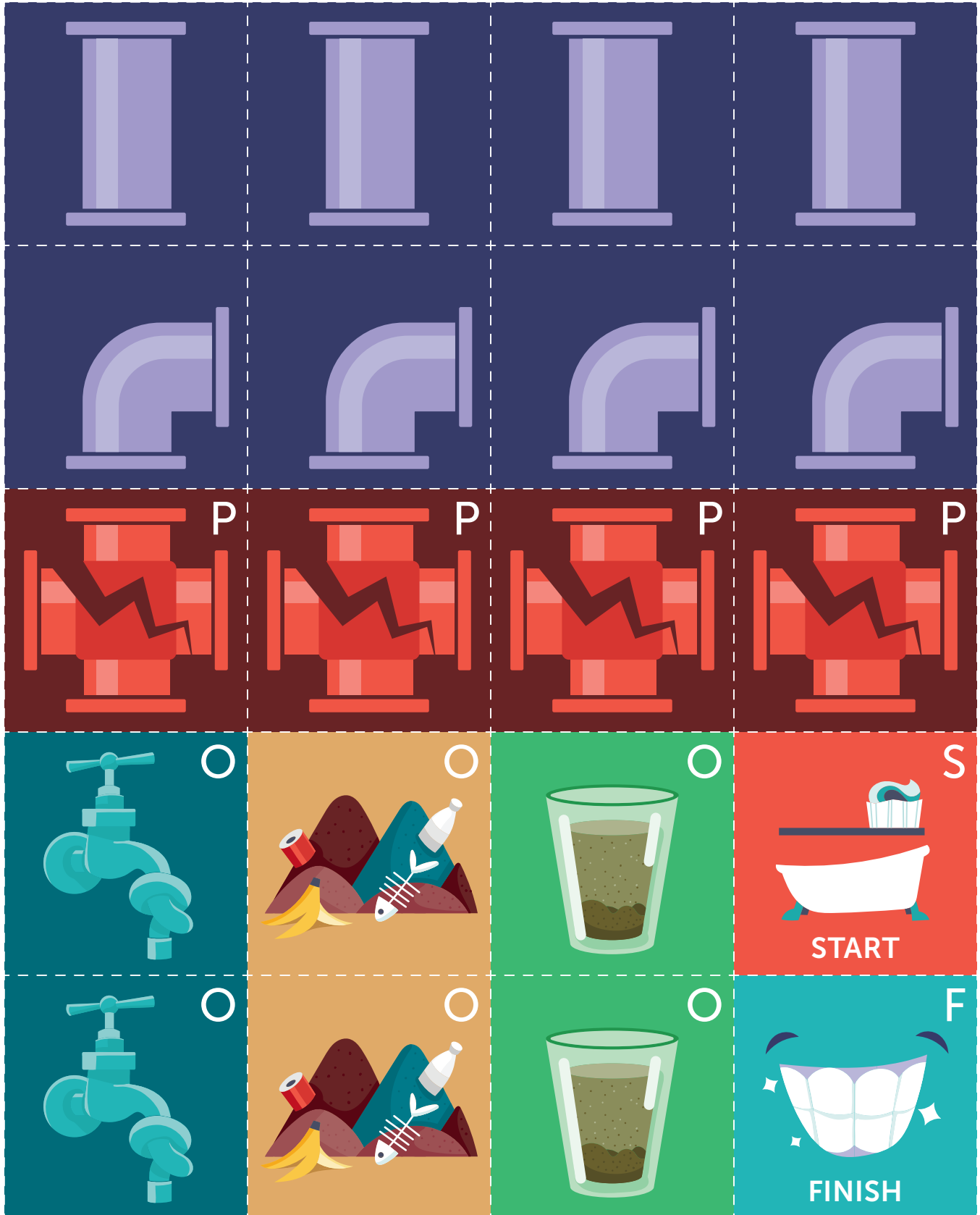


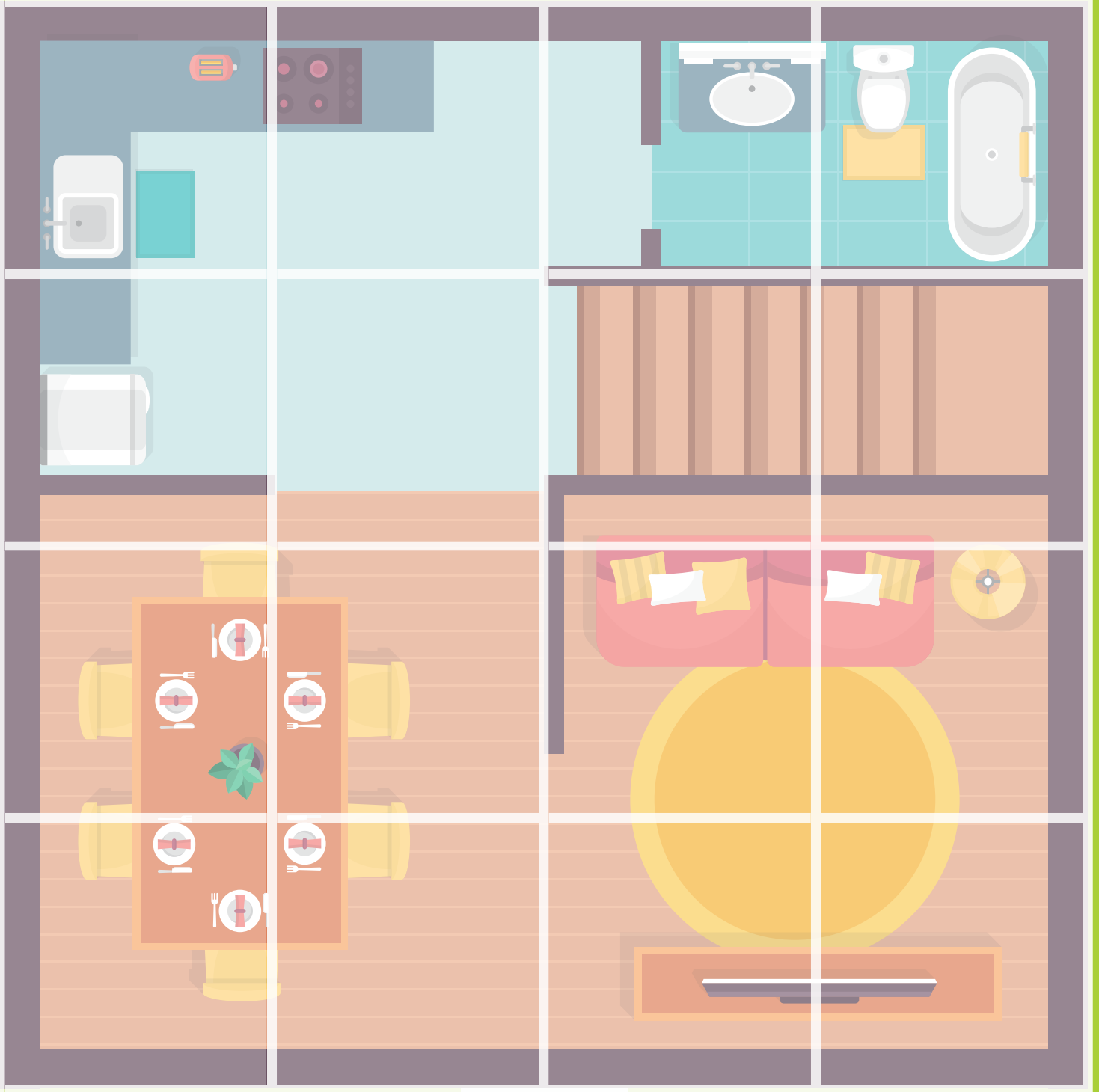
## DID YOU KNOW?

It takes 36 gallons of water to fill up the average bathtub. By taking a 5-minute shower instead, you could save yourself twice as much water!

# PUZZLE TILE PIECES:

Use scissors to cut out the tiles below and place them on the game board as shown on the Puzzle Setup sheets.





# PIPE UP! WHAT A DAY! GAME BOARD

## THERE ARE LOTS OF EASY WAYS YOU CAN CONSERVE WATER!

- Be sure to turn off the water while brushing your teeth.
- Set a timer and limit showers to 5 minutes or less.
- Install a rain barrel and use the water you collect to water your garden.



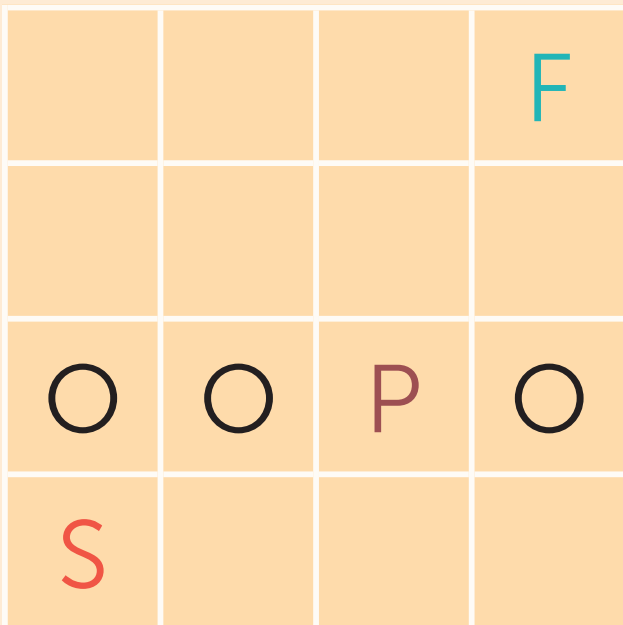
# PIPE UP! IT'S SOOOO HOT!

Everybody's sweating on the bus and your walk home from the bus stop is gonna be rough! Bet you can't wait to drink a nice glass of ice water and go for a swim at the lake this weekend.



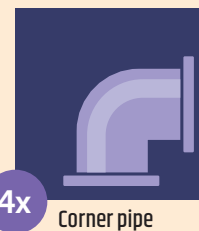
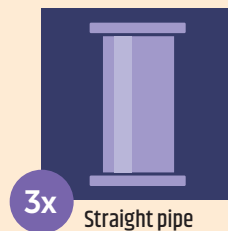
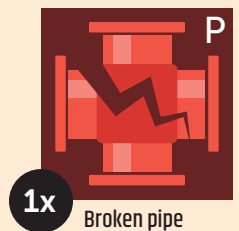
## PUZZLE SETUP:

Make sure you've got the clean, safe water you need to cool off and have some fun in the sun! Use the game pieces to build a working system of pipes that gets around those pesky obstacles and safely delivers clean water from start to finish.



**S:** Start tile  
**P:** Broken pipe tiles

**F:** Finish tile  
**O:** Obstacle tiles

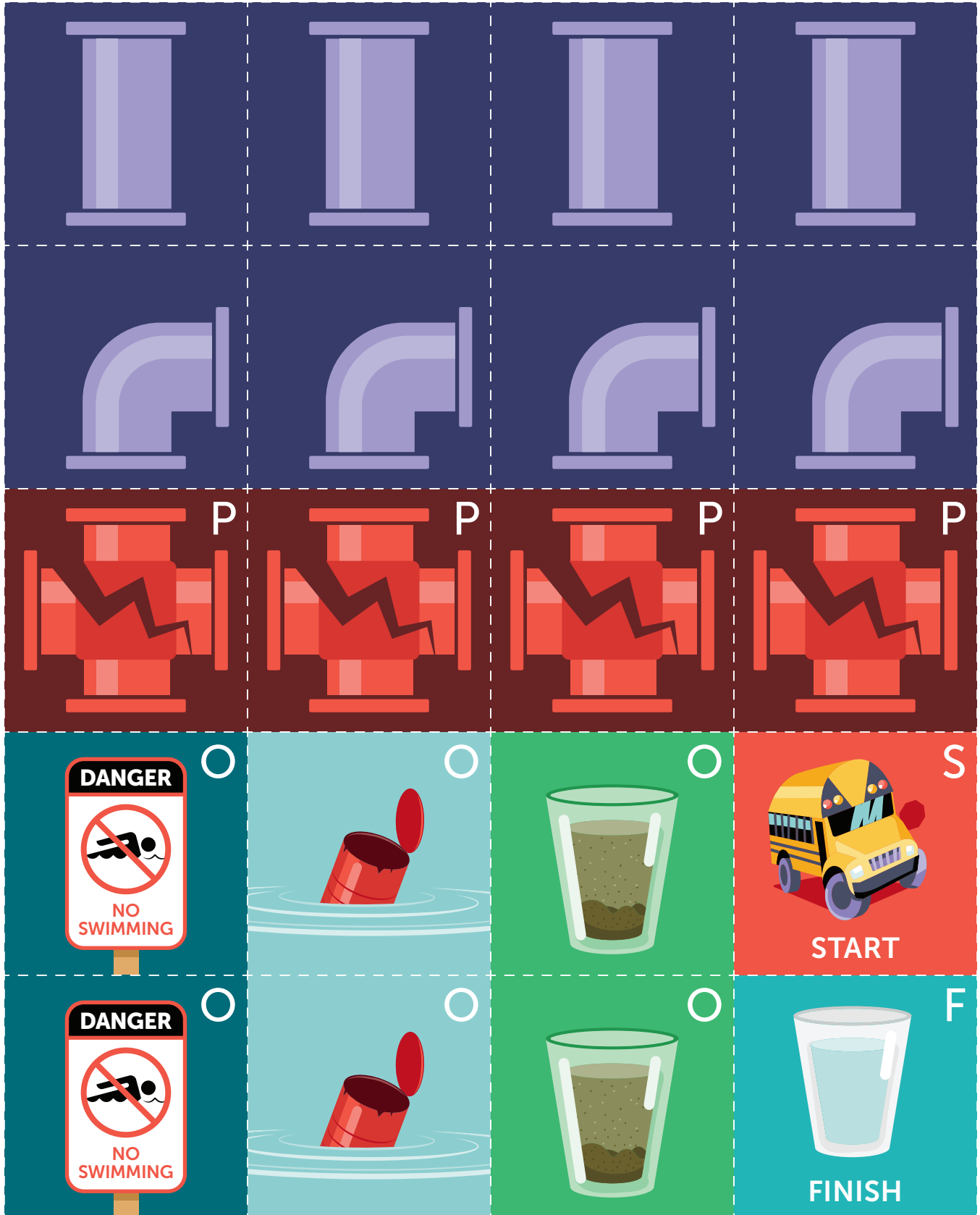


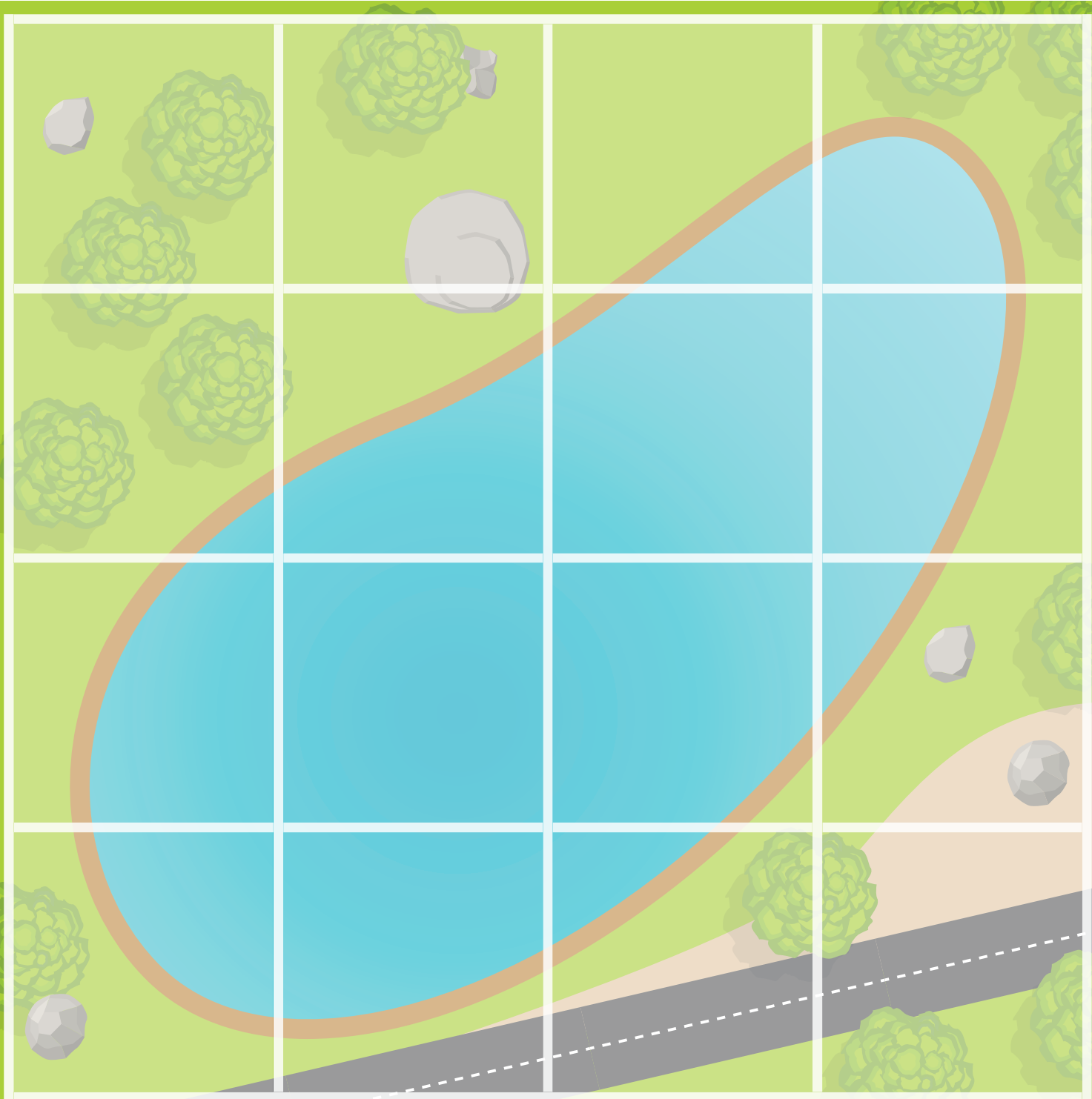
## DID YOU KNOW?

The average person sweats between 27.4 to 47.3 oz. (0.8 to 1.4 liters) per hour while exercising! That means you would need 4–6 glasses of water just to stay hydrated!

# PUZZLE TILE PIECES:

Use scissors to cut out the tiles below and place them on the game board as shown on the Puzzle Setup sheets.





**PIPE UP!**  
**IT'S SOOOO HOT!**  
**GAME BOARD**

**LEARN MORE ABOUT HOW YOU CAN  
PROTECT YOUR WATER!**

- Participate in community cleanup days, environmental festivals, or water awareness days.
- Ask your parents to take you on a field trip to your local water/wastewater utility to learn how water and wastewater are treated.

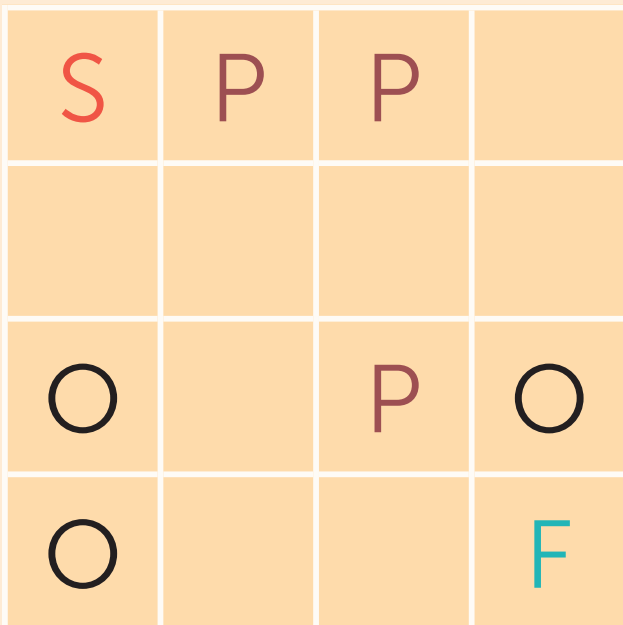
# PIPE UP! THE UNFLUSHABLES

Think it might be fun to send your stuffed toy on an adventure in toilet land? Think again! Except for water, the only things you can safely flush are the 3 P's — Poo, Pee and Paper. Toilet paper, that is—not your math homework!



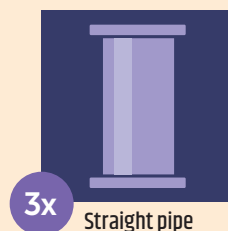
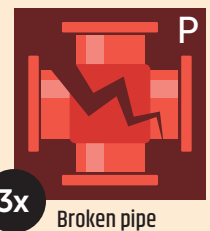
## PUZZLE SETUP:

Make sure your used water gets safely from your toilet and through the pipes by choosing the right things to flush. Remember, anything but water and the 3 P's should go in the recycle bin or trash can or stay put! Use the game pieces to build a working system of pipes and flushables to safely deliver water from start to finish.



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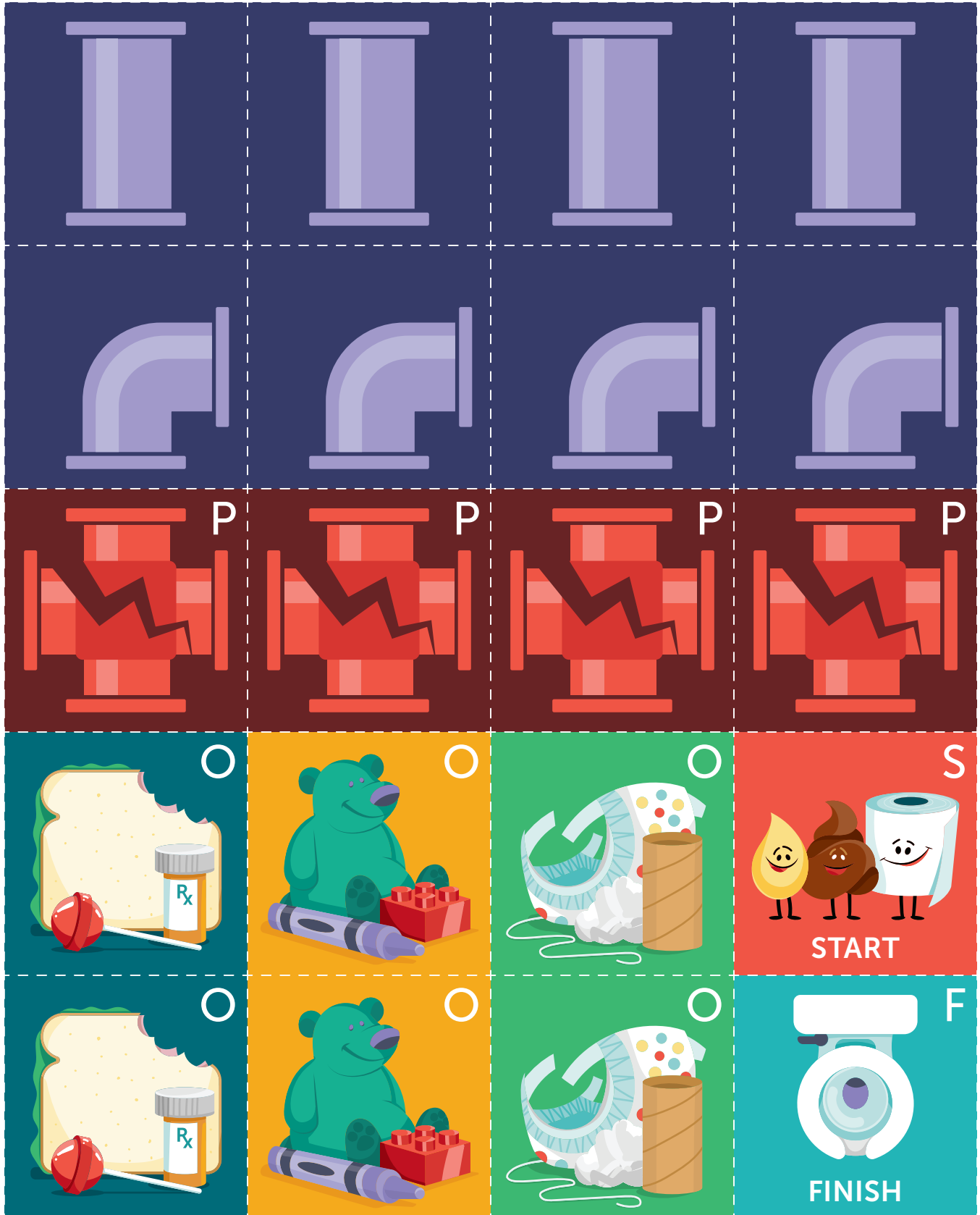
## DID YOU KNOW?

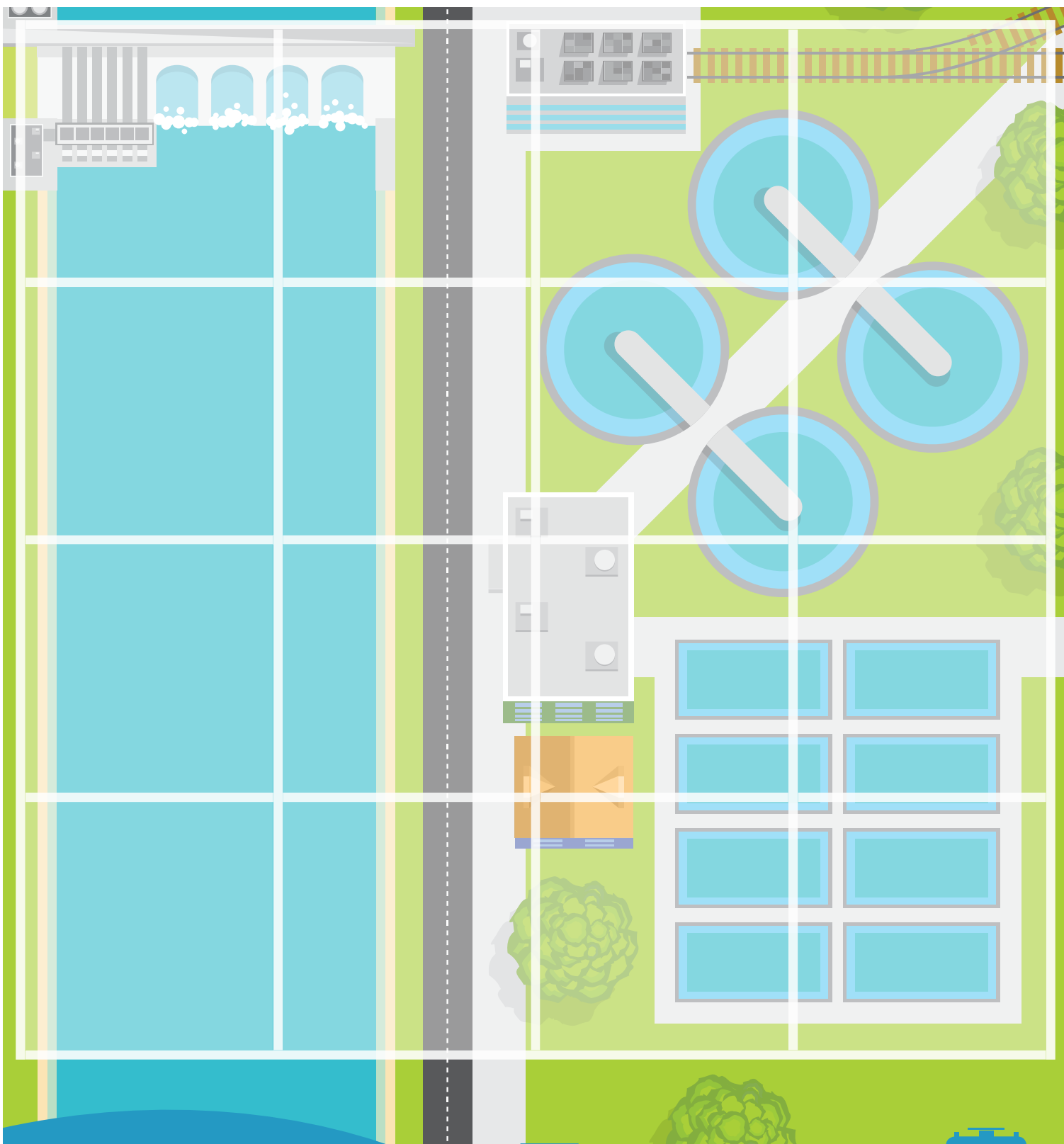
A 15-ton blob of fat, food and wipes known as a "Fatberg" broke the London sewer! That's the size of a school bus! The "Fatberg Hit Squad," aka London water workers, saved the day by cleaning up the mess and fixing the broken pipes! Keep our pipes clear: Don't flush "the unflushables!"

Source: [www.cbsnews.com/news/15-ton-fatberg-blasted-out-of-london-sewer](http://www.cbsnews.com/news/15-ton-fatberg-blasted-out-of-london-sewer)

# PUZZLE TILE PIECES:

Use scissors to cut out the tiles below and place them on the game board as shown on the Puzzle Setup sheets.





**PIPE UP!**  
**THE UNFLUSHABLES**  
**GAME BOARD**

**DO YOU KNOW WHAT'S SAFE  
TO FLUSH DOWN THE TOILET?**

- Scoop your pet's poop! Don't flush it.
- Don't put old medicines and household waste down the drain.
- Only flush the 3 P's—Pee, Poo & Paper.

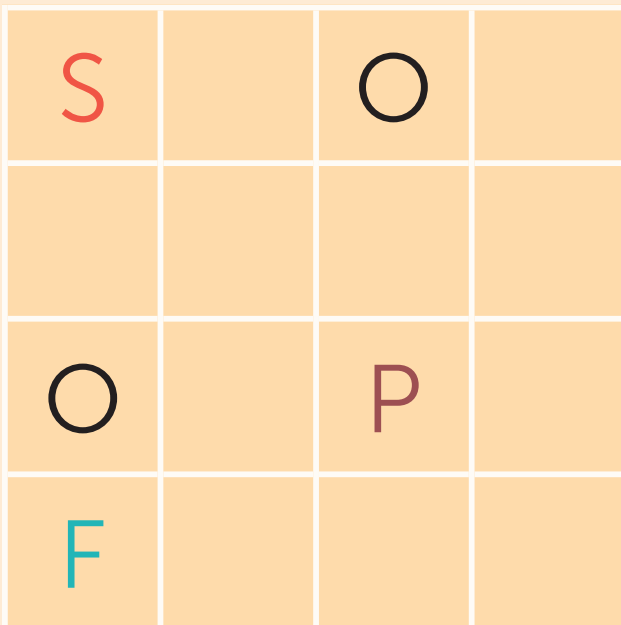
# PIPE UP! GO GREEN!

You learned all about the water cycle and how “everybody lives downstream” at school today. The teacher challenges you to be a water hero, just like your friends who work in water, by making green choices that will protect our water resources, communities and the environment.



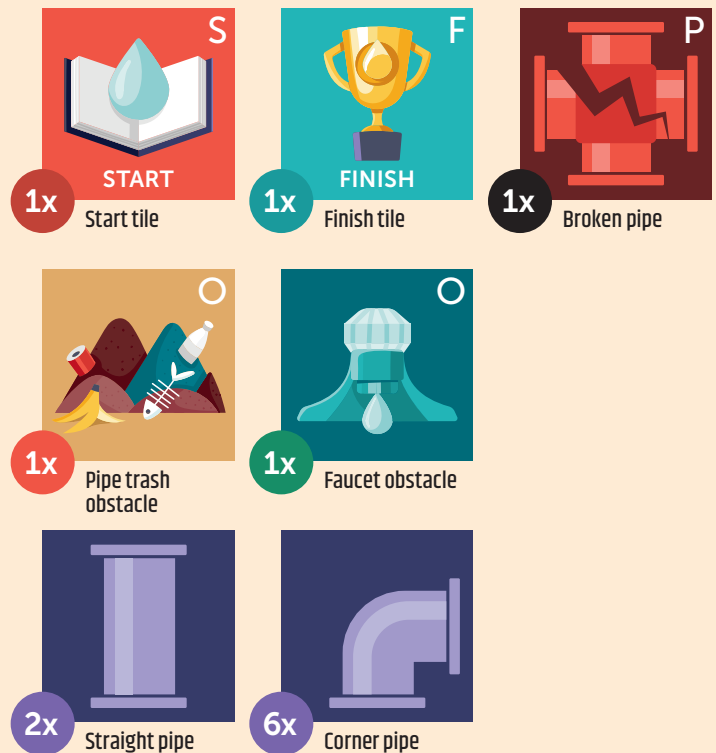
## PUZZLE SETUP:

Make sure you’ve got the clean, safe water you need by making environmentally friendly choices that protect our planet! Use the game pieces to build a working system of pipes that gets around those pesky obstacles and safely delivers clean water from start to finish.



**S:** Start tile  
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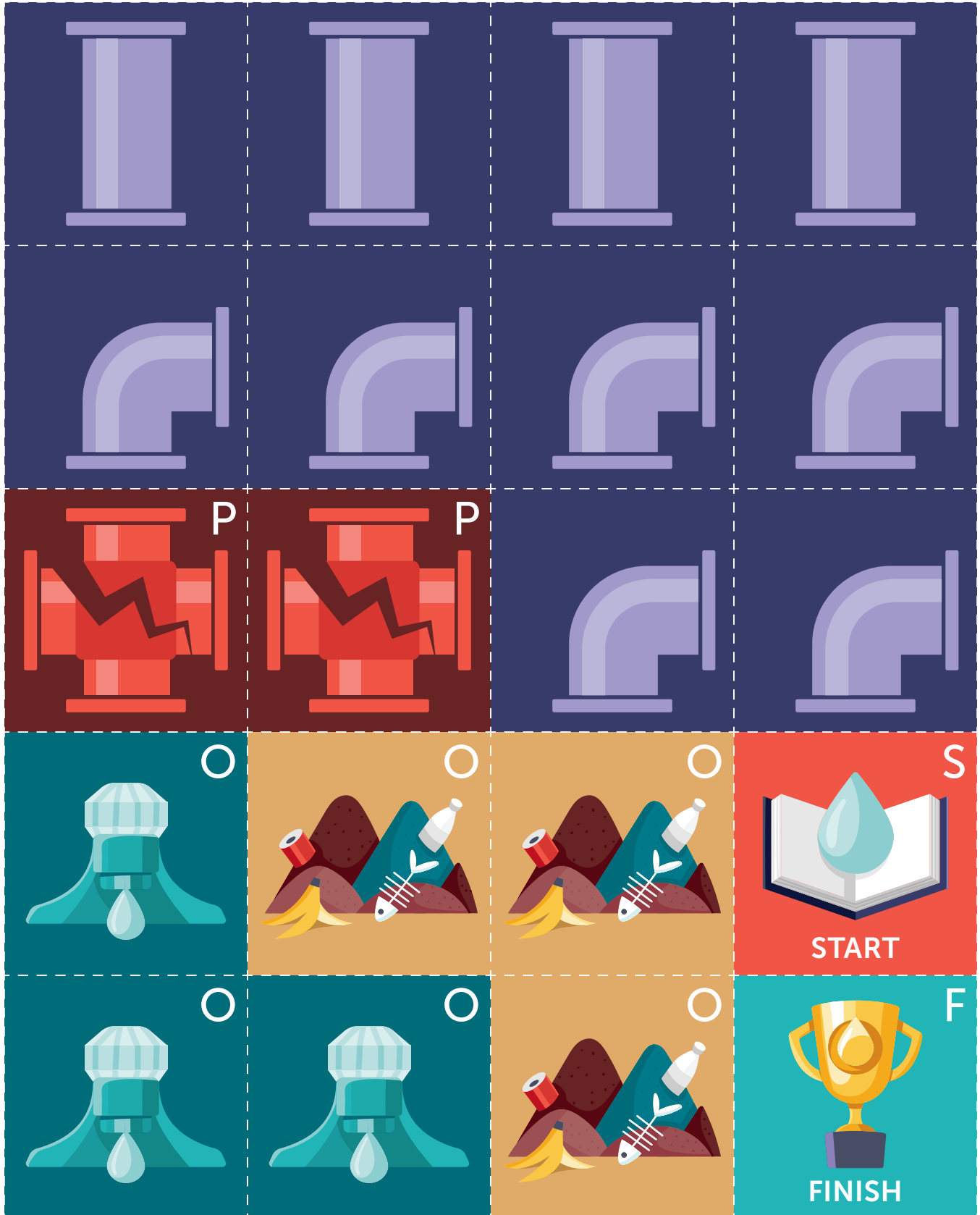


## DID YOU KNOW?

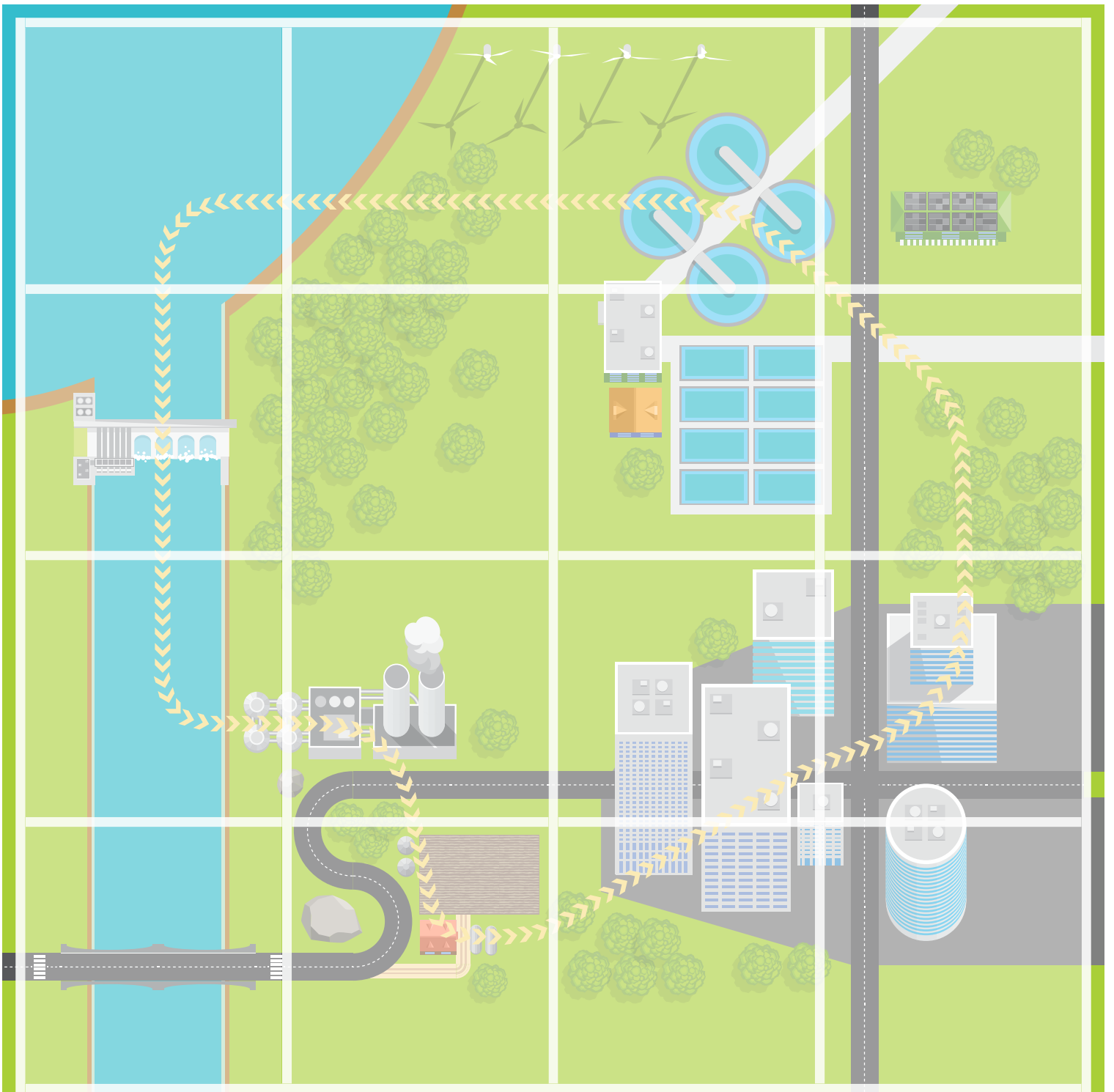
A leaky toilet wastes about 200 gallons of water per day. That’s enough to fill a fish tank that holds six small sharks! Ask your parents to help you put a drop of food coloring in your toilet tank. If the color shows up in the bowl without flushing, you have a leak!

# PUZZLE TILE PIECES:

Use scissors to cut out the tiles below and place them on the game board as shown on the Puzzle Setup sheets.







**PIPE UP!**  
**GO GREEN!**  
GAME BOARD

**BE A WATER HERO!**  
**TAKE THE 30-DAY CHALLENGE TO SAVE WATER**

Read through your water/wastewater bill with your parents and challenge everyone in your house to reduce your water footprint. Your community and our planet will thank you!



# MORE 'DID YOU KNOW?'

## PIPE UP! WHAT A DAY!

The Egyptians were the first people to record methods for treating water. These records date back more than 1,500 years to 400 A.D. They indicate that the most common ways of cleaning water were by boiling it over a fire, heating it in the sun, or by dipping a heated piece of iron into it.

## PIPE UP! IT'S SOOO HOT!

People can live several weeks without food, but only a few days without water. Water makes up 83% of our blood, 70% of our brain, and 90% of our lungs. Overall, our bodies are 70% water.

## PIPE UP! THE UNFLUSHABLES

Wastewater Treatment Plants are now called Water Resource Recovery Facilities to reflect the true nature of the treatment process. These "green factories" recycle used water and responsibly dispose of waste by producing valuable resources like clean water, renewable energy, natural fertilizer, nutrients and transportation fuel!

## PIPE UP! GO GREEN!

Stormwater is excess rain and snowmelt that can overflow and become polluted as it travels over surfaces into streams, rivers, lakes and oceans. Rain barrels, rain gardens and keeping storm drains clear of debris can help prevent flooding and erosion, while proper disposal of household chemicals, litter and pet waste can help stop pollution!

## THANK A WATER HERO!

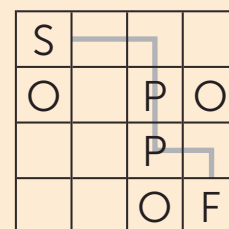
Write a letter, make a card or send an email to the folks at your local water/wastewater utility to thank them for the important work they do every day—making sure you always have reliable access to clean, safe water!



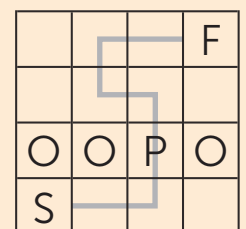
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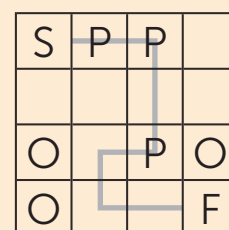
## PUZZLE SOLUTIONS:



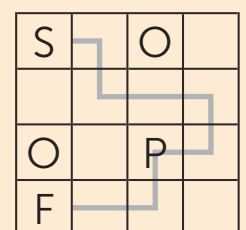
WHAT A DAY!



IT'S SOOOO HOT!



THE UNFLUSHABLES



GO GREEN!