Name: _____ Date: _____

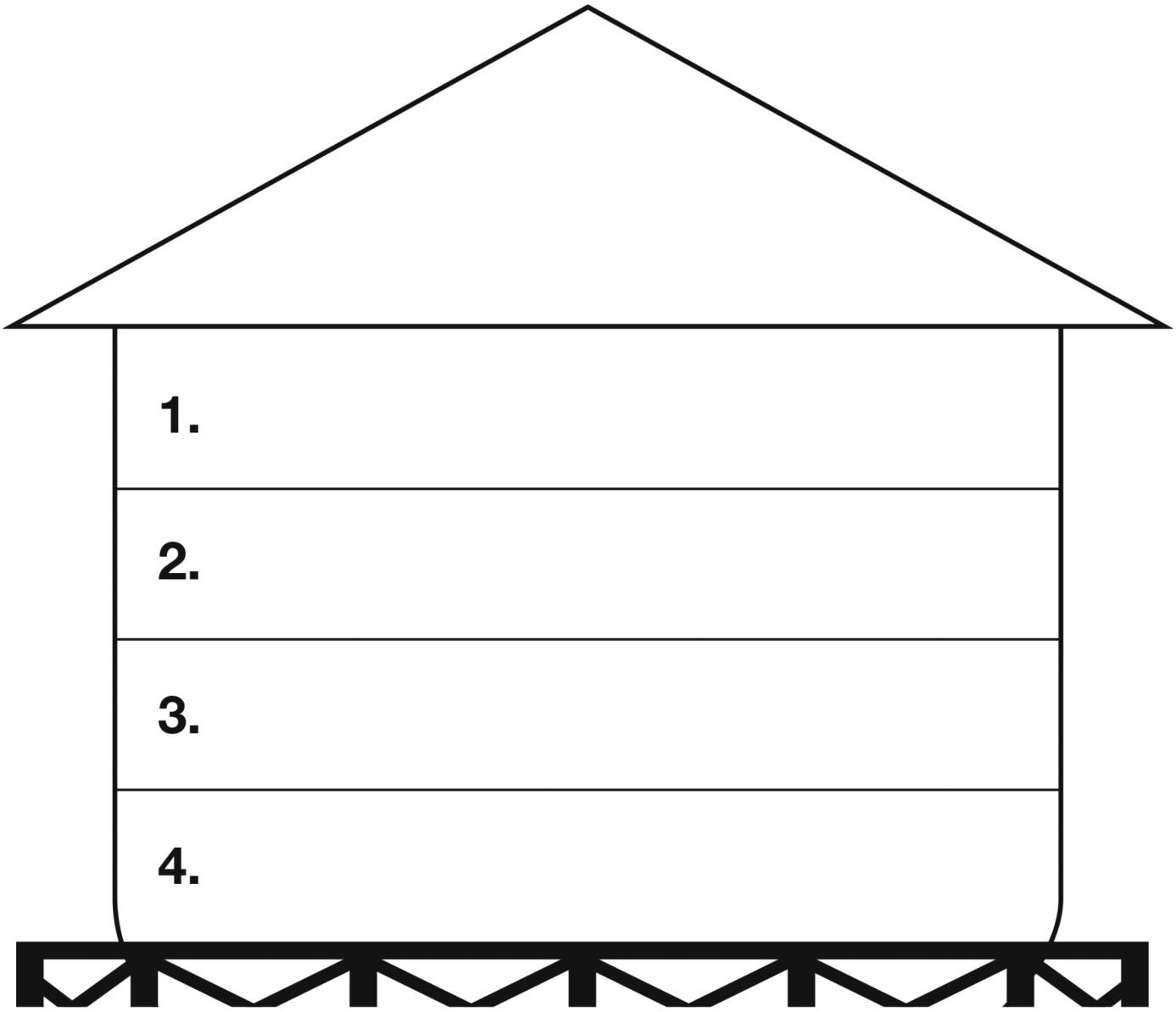
Lesson 1

Water Towers
Fact Finder Activity

Elevated storage tanks, also known as water towers, are found in almost every town. They are very important for helping create water pressure to be able to send water to your house.

Instructions:

Fill the water tower with four important facts from the video you just viewed. Put the most important fact at the top in the number one section with the least important fact at the bottom in the fourth section. Then, explain why you chose the first fact as the most important.



Fact number one is most important because:

Name: _____ Date: _____

Lesson 2

When Water Stops Flowing Math Activity

Unexpected storms or breaks in pipelines can cause water to stop flowing. FEMA recommends planning for at least three days without water in case of an emergency. One person drinks about one gallon of water a day.

Instructions:

Read each scenario below and find out how many gallons of drinking water need to be stored to properly prepare for a water interruption for three days. Shade in the correct number of containers that need to be added together to find the answer. Write the answer on the line.

Drinking Water for 1 Person for 3 Days

1 x 3= 

= ____

Drinking Water For A Family of 3 for 3 Days

3 x 3= 

= ____

Drinking Water For A Family of 3 and 1 pet for 3 Days

4 x 3= 

= ____

BONUS: The Martinez family wants to be prepared incase of a water interruption in their home. There are four people in the family and they have a cat and a dog. How many gallons of drinking water should they store for at least three days?

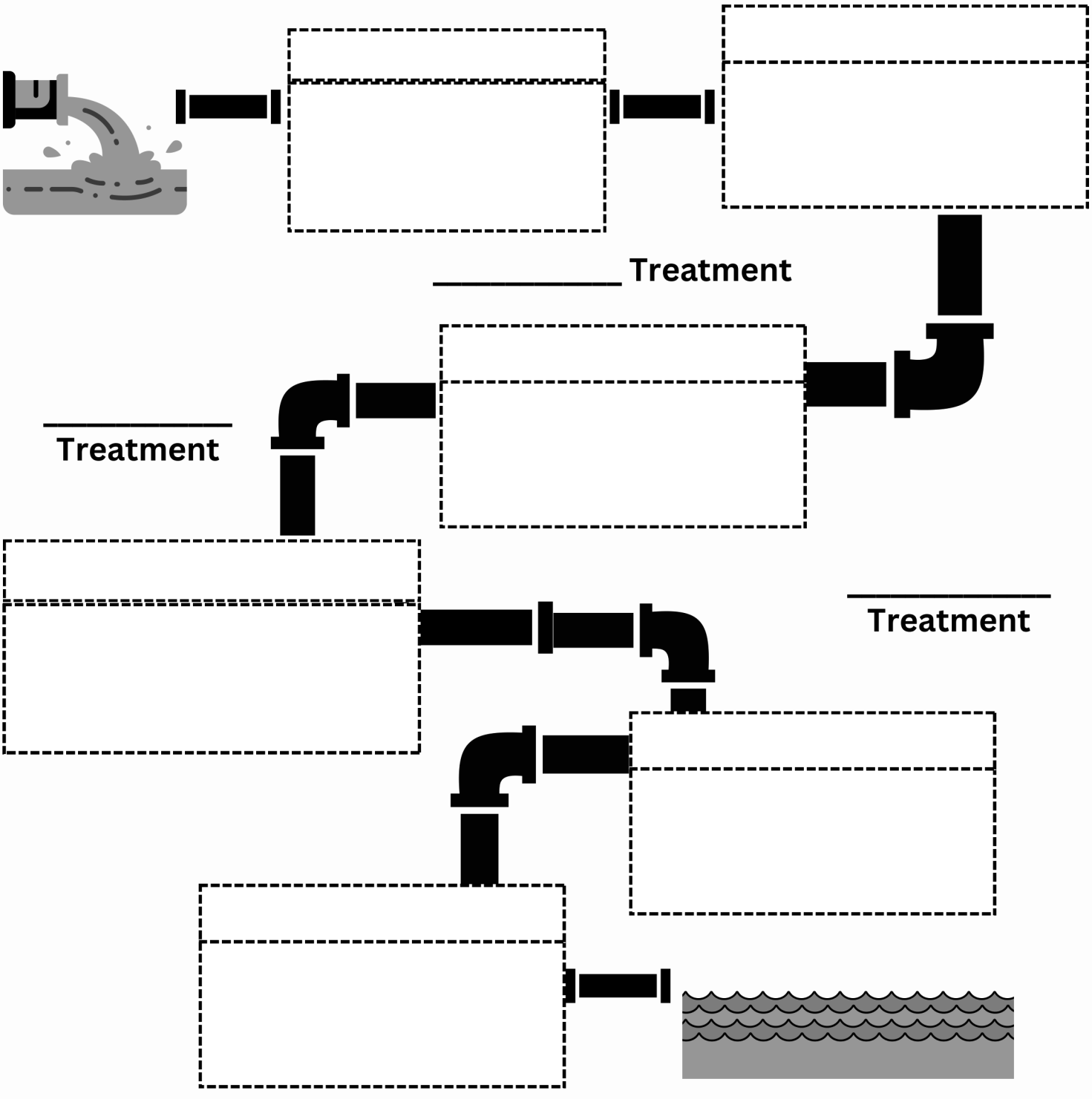
Name: _____ Date: _____

Lesson 3

Where Does Wastewater Go?
Diagram Activity

Instructions:

After viewing the "Wastewater Treatment" video, complete the diagram below showing the entire process. You may need to view the video more than once. When you are ready to begin the diagram, start by cutting the definitions, symbols and the terms found on the following page and gluing them in the correct order below. Remember to fill in the primary, secondary, and tertiary treatment stages of the water treatment process on the empty lines.



Lesson 3 Where Does Wastewater Go?
Diagram Activity

Instructions:
Cut these definitions, symbols and terms and glue them in the correct order on the diagram activity page. Remember to fill in the *primary*, *secondary*, and *tertiary* treatment stages of the water treatment process on the empty lines.

Aeration Basin

Stage where helpful bacteria and oxygen are added to the water and mixed to remove organic material and allow pollutants to clump together.

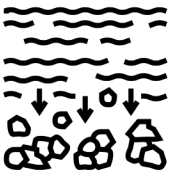
Filtration

Biggest pollutants are removed in this stage.

Disinfection

Stage where water is slowed down to allow sand and gravel to sink down to the bottom.

Grit Chamber

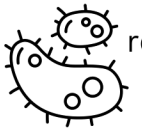


Stage where the heavier dirt sinks to the bottom.

Sedimentation

Water is polished at this third stage.

Screening



The final stage that removes any remaining pathogens such as bacteria, viruses, or parasites.

Name: _____ Date: _____

Lesson 4

Treating Drinking Water Vocabulary Match

Instructions:

After viewing the "Water Treatment" video, show what you learned about treating drinking water. Match each vocabulary term to its definition by writing the correct letter on the line. Finish by drawing a picture next to the term to illustrate each definition. You may need to view the video more than once.

1. _____ **Groundwater**

2. _____ **Surface water**

3. _____ **Microbes**

4. _____ **Coagulate**

5. _____ **Flocculation**

6. _____ **Sedimentation**

7. _____ **Filtration**

8. _____ **Disinfection**

a.The step in surface water treatment in which water passes through filtered media removing finer materials and microbes.

b. Tiny bugs found in water that can cause illness.

c.The most important step in surface water treatment that completely removes, or eliminates, all viruses and bacteria that may remain in water to make it safe.

d. Drinking water that comes from a river, reservoir or lake that requires a series of treatments.

e.The step in surface water treatment that stirs the water to get clumps to get larger.

f.The step in surface water treatment where water is slowed down so clumps can settle to the bottom causing water to get clear.

g. Underground drinking water that may require only disinfection, since it can be naturally filtered.

h.The first step in surface water treatment that brings together, or clumps, all the solid, muddy material that needs to be removed.

CELEBRATE WATER

Name: _____ **Date:** _____

Lesson 5

Everyone Lives in a Watershed
Two Truths and a Lie

Instructions:

After viewing the "Watersheds" video, follow the three steps below. Begin by writing three sentences about watersheds and how to protect them. Two sentences must be true and one must be false. You may need to view the video more than once.

Step 1

1

2

3

Step 2

Write a paragraph about watersheds. Make sure to include the correct answer to the lie.

_____

_____

_____

_____

_____

Step 3

You get to be the teacher in this step. Give this handout to another learner so they can determine which sentences are true and which is false, using your paragraph as a clue. Did they get the answer right?

WaterWorks Board Game Instructions

When you turn on a faucet in your house, water comes out. Have you ever wondered how it gets there? Water gets to your house through pipes. Pipes are tubes that the water company pumps water through to get it to you. The WaterWorks game lets you be the water company and get water to your neighborhood!

Game Preparation Instructions:

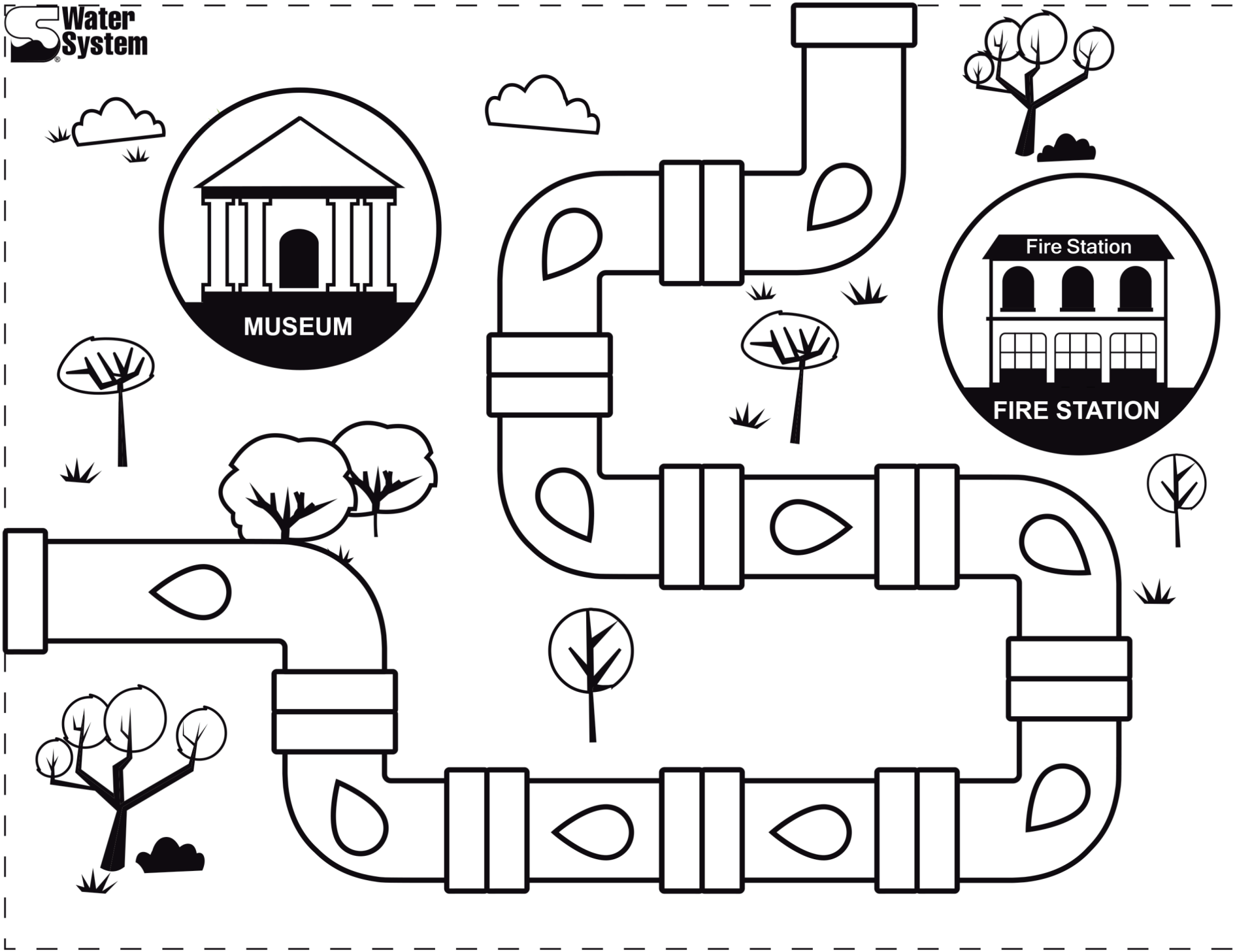
1. Print the game board pages. A black and white version is available for coloring. Place the pages together so that you create a SAWS logo in the middle that looks like this:
2. Print two copies of the game cards and cut them out.
3. Use buttons, Legos, stones, or uncooked pinto beans for player pieces. You could also borrow player pieces from another game.

Game Play Instructions:

1. Place all the player pieces on Start.
2. Before you start shuffle cards so that they are mixed. The first player selects a card and moves ahead that many spaces.
3. If the player lands on a “leaky pipe” they must stay on that space until the leak is fixed. To fix the leak the player must draw a “2”.
4. The first player to get water (their player piece) to the neighborhood wins!
5. Game recommended for 2 to 4 players.


1
2
2
3
4
5
San Antonio Water System
1
2
2
3
4
5
San Antonio Water System

Water System



SCHOOL
HOSPITAL

POLICE
START HERE

San Antonio
POST OFFICE
GAS STATION