



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 home.

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.

A diagram of a water tower with a triangular roof and a cylindrical body divided into four horizontal sections. The sections are numbered 1, 2, 3, and 4 from top to bottom. The tower sits on a truss-like base.

1.
2.
3.
4.

Fact number one is most important because:

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

$$3 \times 1 = \begin{array}{|c|} \hline 3 \\ \hline \end{array} \begin{array}{|c|} \hline 3 \\ \hline \end{array} \begin{array}{|c|} \hline 3 \\ \hline \end{array} \begin{array}{|c|} \hline 3 \\ \hline \end{array} \begin{array}{|c|} \hline 3 \\ \hline \end{array} \begin{array}{|c|} \hline 3 \\ \hline \end{array} \begin{array}{|c|} \hline 3 \\ \hline \end{array} = \underline{\hspace{2cm}}$$

Drinking Water For A Family of 3 for 3 Days

$$3 \times 3 = \begin{array}{|c|} \hline 3 \\ \hline \end{array} \begin{array}{|c|} \hline 3 \\ \hline \end{array} \begin{array}{|c|} \hline 3 \\ \hline \end{array} \begin{array}{|c|} \hline 3 \\ \hline \end{array} \begin{array}{|c|} \hline 3 \\ \hline \end{array} \begin{array}{|c|} \hline 3 \\ \hline \end{array} \begin{array}{|c|} \hline 3 \\ \hline \end{array} = \underline{\hspace{2cm}}$$

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

$$3 \times 4 = \begin{array}{|c|} \hline 3 \\ \hline \end{array} \begin{array}{|c|} \hline 3 \\ \hline \end{array} \begin{array}{|c|} \hline 3 \\ \hline \end{array} \begin{array}{|c|} \hline 3 \\ \hline \end{array} \begin{array}{|c|} \hline 3 \\ \hline \end{array} \begin{array}{|c|} \hline 3 \\ \hline \end{array} \begin{array}{|c|} \hline 3 \\ \hline \end{array} = \underline{\hspace{2cm}}$$

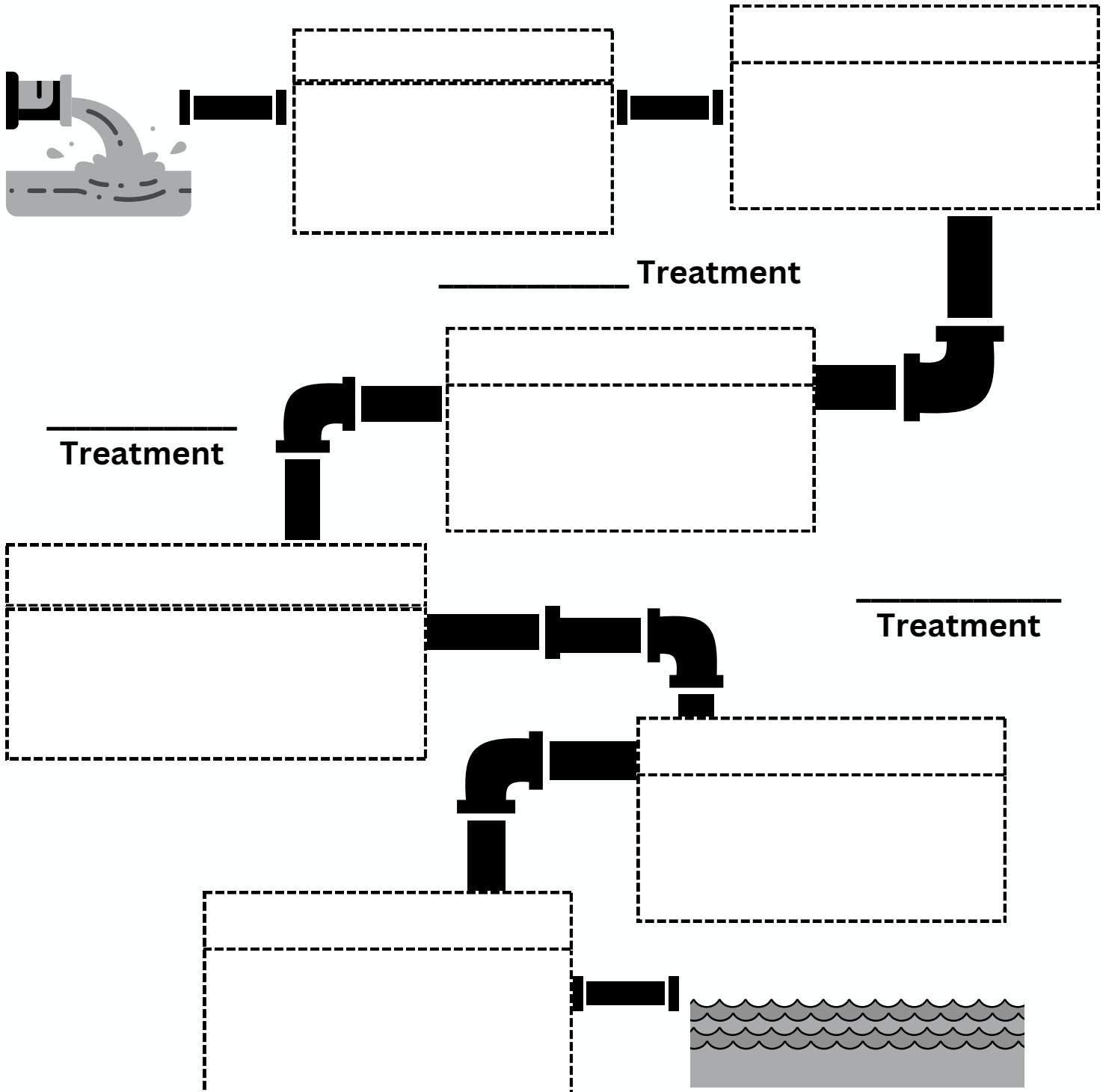
BONUS: The Martinez family wants to be prepared incase of a water interruption in their home. There are four people in the family and they have a cat and a dog. How many gallons of drinking water should they store for at least three days?

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.



Where Does Wastewater Go?

Diagram Activity

Lesson 3

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



“Bug farming,” heart of the treatment process; involves microorganisms consuming organic material in water with added air for their survival.

Filtration



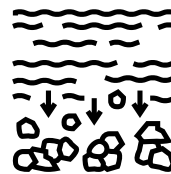
Biggest pollutants are removed in this stage.

Disinfection



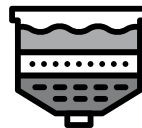
Stage where water is slowed down to allow sand and gravel to sink down to the bottom.

Grit Chamber



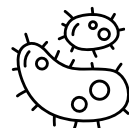
Stage where the heavier dirt sinks to the bottom.

Sedimentation



Sand filters “polish” the treated water and remove any remaining suspended solids or inorganic debris.

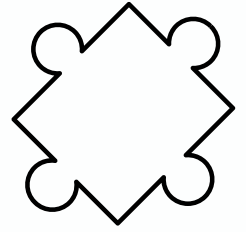
Screening



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

Lesson 4

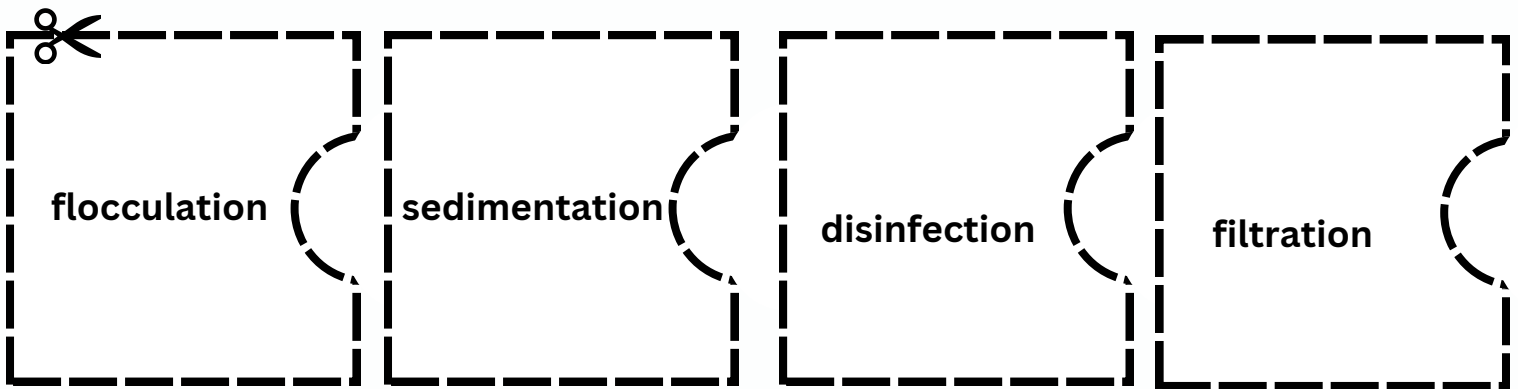
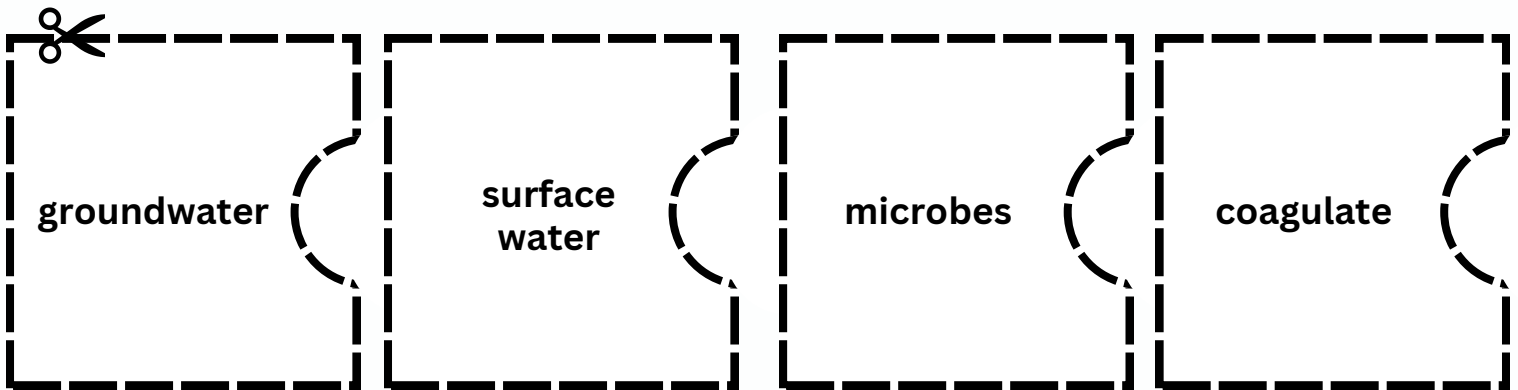
Treating Drinking Water Vocabulary Match



Instructions:

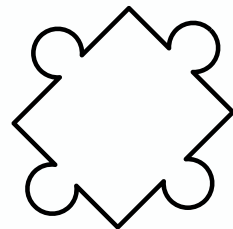
After viewing the "Water Treatment" video, show what you have learned with this interactive vocabulary matching puzzle activity. Cut out each puzzle piece and pair each vocabulary term with its respective definition. As an extension, consider drawing an illustration on the reverse side of the puzzle piece to visually represent the definition. Test your understanding by connecting the terms to the corresponding images.

Drinking Water Treatment Vocabulary Terms



Lesson 4

Treating Drinking Water Vocabulary Match



Drinking Water Treatment Vocabulary Definitions



Tiny bugs found in water that can cause illness.

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

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

The step that stirs the water to get clumps to get larger.

The most important step that completely removes, or eliminates, all viruses and bacteria that may remain in the water.

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

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

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

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?