

Teacher Key

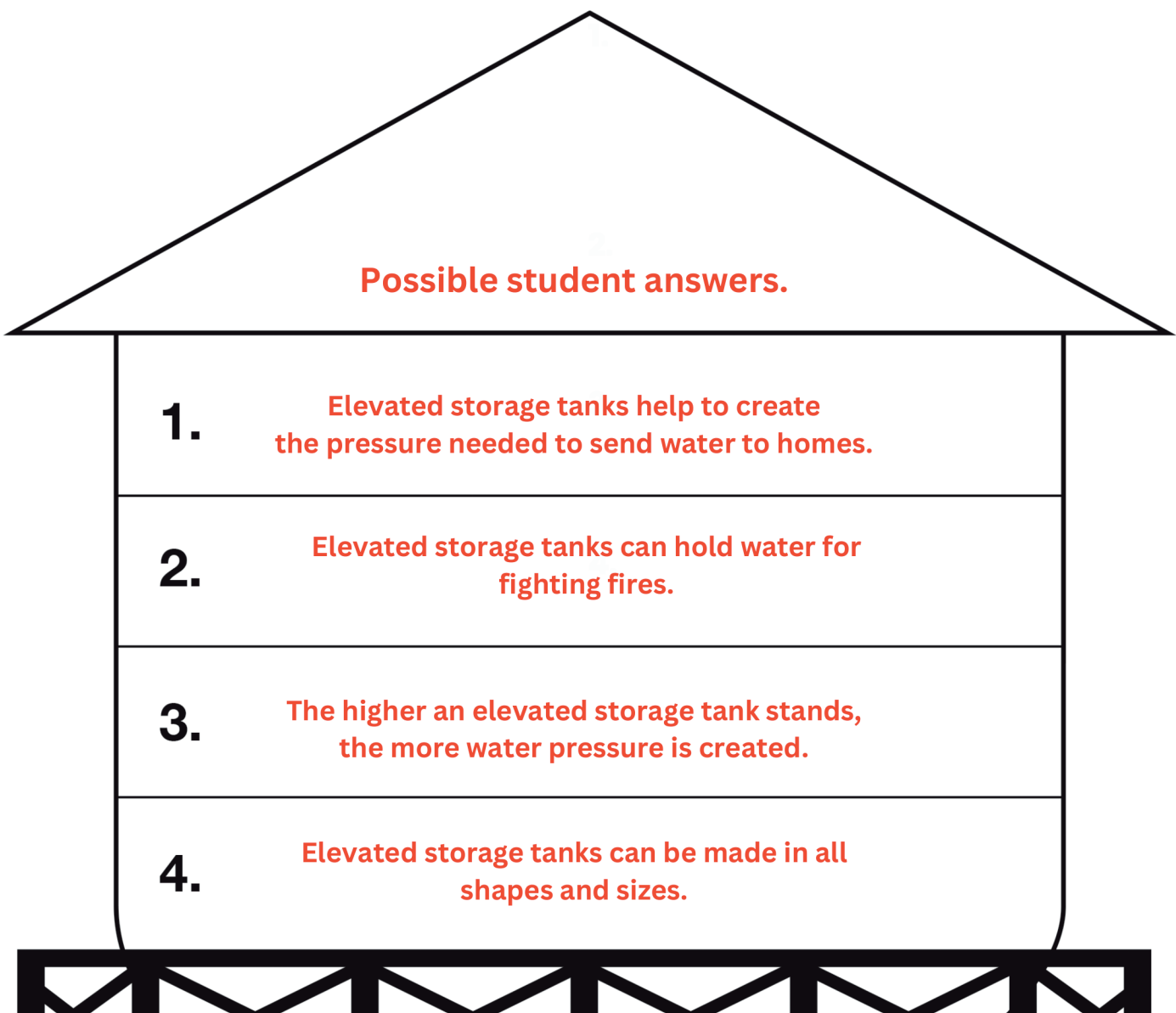
Lesson 1

Water Tower 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:

Student answers may vary. If water is not pressurized it will have a difficult time reaching your home and you may not have enough water for daily use.

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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

$$1 \times 3 = \begin{array}{ccccccc} \text{3} & \text{3} & \text{3} & \text{3} & \text{3} & \text{3} & \text{3} \\ \text{3} & \text{3} & \text{3} & \text{3} & \text{3} & \text{3} & \text{3} \end{array} = \underline{\text{3}}$$

Drinking Water For A Family of 3 for 3 Days

$$3 \times 3 = \begin{array}{ccccccc} \text{3} & \text{3} & \text{3} & \text{3} & \text{3} & \text{3} & \text{3} \\ \text{3} & \text{3} & \text{3} & \text{3} & \text{3} & \text{3} & \text{3} \end{array} = \underline{\text{9}}$$

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

$$4 \times 3 = \begin{array}{ccccccc} \text{3} & \text{3} & \text{3} & \text{3} & \text{3} & \text{3} & \text{3} \\ \text{3} & \text{3} & \text{3} & \text{3} & \text{3} & \text{3} & \text{3} \end{array} = \underline{\text{12}}$$

18 gallons of water

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?

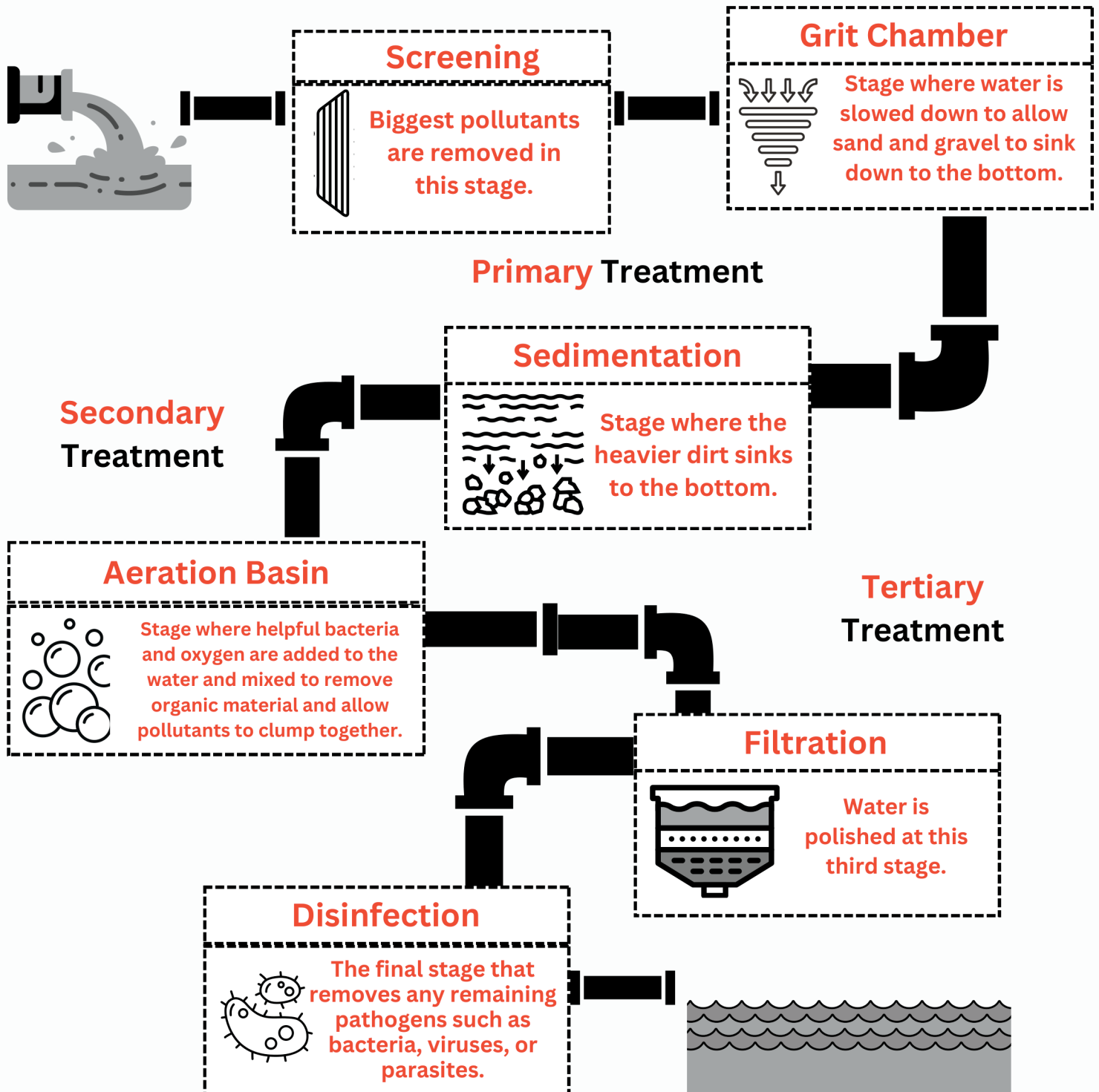
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Lesson 3

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.



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Lesson 4

Treating Drinking Water Vocabulary Practice

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. g. Groundwater

illustrations
will vary.

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

2. d. Surface water

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

3. b. Microbes

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.

4. h. Coagulate

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

5. e. Flocculation

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

6. f. Sedimentation

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

7. a. Filtration

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

8. c. Disinfection

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

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Lesson 5

We All Live in a Watershed Two Truths and a Lie

Instructions:

After viewing the Watershed 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 Student statements will vary.

2 Student statements will vary.

3 Student statements will vary.

Step 2

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

Student statements will vary.

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?