Water Words Matter

Use scientific vocabulary to explain a treatment process clearly.

CCSS.ELA-Literacy.WHST.6-8.2d "Use precise language and domain-specific vocabulary to inform about or explain the topic."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline six domain-specific words or phrases that name a water-treatment step, material, measurement, or contaminant. Circle the nearby words that help you figure out what each term means.

From River to Tap

1. Before drinking water reaches homes, it often travels through a treatment plant. At the plant, screens remove large debris such as leaves and plastic. Next, operators add chemicals that cause tiny suspended particles to clump together. This process, called coagulation, forms heavier clumps that can settle. The water then moves into sedimentation basins, where gravity pulls the clumps to the bottom. Removing these particles makes later cleaning steps more effective and protects equipment from clogging.

2. After sedimentation, water passes through filters made of layers such as sand, gravel, and anthracite, a hard form of coal. The filter media trap smaller particles that did not settle earlier. Plant staff monitor turbidity, a measure of cloudiness caused by suspended material. Low turbidity shows that few particles remain, while high turbidity can signal that a filter needs attention. Filters are cleaned by backwashing, which sends water upward through the layers to loosen and carry away trapped material.

3. Disinfection is a final step that reduces harmful microorganisms, including bacteria and viruses. Many plants add chlorine or use ultraviolet light to damage or destroy these organisms. The treatment goal is not to remove every substance from water. Instead, each stage targets particular contaminants: screening removes large debris, settling and filtration reduce particles, and disinfection controls microbes. Before treated water enters pipes, workers test samples for measures such as chlorine level and turbidity. These results help confirm that the treatment process is operating properly.

2 ANSWER WITH EVIDENCE

Use the passage

1. The passage uses the term coagulation instead of the broad phrase “making particles clump.” What does coagulation name?

2. What materials are identified as filter media, and what do they do?

3. What does turbidity measure, and why can high turbidity signal a problem?

4. Explain the difference between sedimentation and backwashing. Use both precise terms in your answer.

3 YOUR TURN

Your own words

Write exactly 3 sentences explaining how a treatment plant makes water safer before it enters pipes. Use at least four domain-specific terms from the passage, and show the steps in a logical order.

ANSWER KEY

Water Words Matter

GRADE 7 · WHST.6-8.2d

PART 1 · READ AND MARK

Underline six domain-specific words or phrases that name a water-treatment step, material, measurement, or contaminant. Circle the nearby words that help you figure out what each term means. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	The passage uses the term coagulation instead of the broad phrase "making particles clump." What does coagulation name?	**It names the process in which added chemicals cause tiny suspended particles to clump together.**
2	What materials are identified as filter media, and what do they do?	**Sand, gravel, and anthracite are filter media. They trap smaller particles that did not settle earlier.**
3	What does turbidity measure, and why can high turbidity signal a problem?	**Turbidity measures cloudiness caused by suspended material. High turbidity can signal that a filter needs attention.**
4	Explain the difference between sedimentation and backwashing. Use both precise terms in your answer.	**Sedimentation is when gravity pulls particle clumps to the bottom of basins. Backwashing sends water upward through filter layers to loosen and remove trapped material.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

At a treatment plant, screening removes large debris, then coagulation causes suspended particles to form clumps that settle in sedimentation basins. Filtration sends water through filter media, where sand, gravel, and anthracite trap smaller particles and reduce turbidity. Disinfection uses chlorine or ultraviolet light to reduce harmful microorganisms, and workers test treated water before it enters pipes.

Accept accurate explanations that use at least four relevant domain-specific terms from the passage and place treatment stages in a logical order. Terms may be used in different valid combinations if their meanings and roles are clear.