

Preventing Fathergs

Focus Questions

Discuss the BTN story as a class and record the main points of the discussion. Students will then respond to the following:

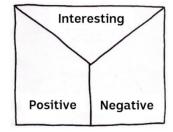
- 1. Summarise the Preventing Fatbergs story.
- 2. Explain what happens at the Waste Water Treatment Works.
- 3. How is the treated wastewater reused?
- 4. What sorts of objects do they find at the treatment works?
- 5. What are the `three P's' that should be flushed down the toilet?
- 6. What thing is being flushed down the toilet and causing big problems for our sewerage systems?
- 7. What is a fatberg?
- 8. Products are advertised as flushable even when they are not. True or false?
- 9. What is being done to prevent the problem of fatbergs forming?
- 10. What was surprising about the BTN story?

Activity: Note taking

Students will practice their note-taking while watching the BTN Preventing Fatbergs story. After watching the story, ask students to reflect on and organise the information

into three categories. What information in the story was...?

- Positive
- Negative or
- Interesting



Activity: Class Discussion

Hold a class discussion about the information raised in the BTN Preventing Fatbergs story. Create a class mind map with FATBERG in the middle. Use the following questions to guide discussion:

- What is a fatberg? Write a class definition.
- What causes fatbergs?
- Why are fatbergs a problem?
- What can we do to stop fatbergs from forming?
- Whose responsibility is it to stop fatbergs?

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KEY LEARNING

Students will explore where water comes from, how it is accessed and where it goes after we use it. Students will design a public awareness campaign targeting fatbergs.

CURRICULUM

HASS - Year 4

Reflect on learning to propose actions in response to an issue or challenge and consider possible effects of proposed actions.

HASS - Year 5

Use criteria to make decisions and judgements and consider advantages and disadvantages of preferring one decision over others.

HASS - Year 5 & 6

Develop appropriate questions to guide an inquiry about people, events, developments, places, systems and challenges.

HASS - Year 7

Construct significant questions and propositions to guide investigations about people, events, developments, places, systems and challenges.

Activity: Education campaign

Students will design a public education campaign targeting bad waste disposal. Students can choose one of the following to focus their campaign on:

- Fatbergs
- Fast fashion
- Recycling
- E-Waste







BTN Fast Fashion

BTN Recycling Problem

BTN War on E-Waste

Students will need to think about their campaign's aim, target audience, and the value of raising awareness at their school and in the broader community. To create an awareness campaign, students will need to identify the following:

- What is the problem?
- What causes the problem?
- How does the problem impact on the environment and people?
- What are some good practices or ways to avoid the problem? Write step-by-step instructions.
- Whose responsibility is it to help solve the problem?
- Why is it important to raise awareness about the issue?
- How can you encourage people to change their behaviours?

Some questions for students to consider when designing their campaign:

- What is the campaign's main aim?
- Do you have a slogan or message? What is it?
- Do you have a jingle?
- Who is your target audience?
- What is the best way to communicate the message?

Discuss with students how they will get their message out there to help raise public awareness. Some possibilities include:

- Short film or animation.
- Community service announcement (for television or radio).
- Press release.
- Use <u>Canva</u> to design a poster to put up around your school and contact your local council to ask if they can support your campaign.

Activity: Science investigation

Class discussion

Do you know what happens to the water after you flush? Facilitate a class discussion to find out what your students already know about where water comes from, how it is accessed and where it goes after we use it. Use one or more of these questions to get the discussion started:

- How do you use water?
- How is water used at school, at home and in the community?
- Where does water come from?
- What is the cycle of toilet water?
- What are some natural and man-made systems associated with water?
- What are some ways to use water responsibly?

School investigation

Provide your students with the opportunity to investigate water use around their school. Working individually or in small groups, students will use the following to guide them during their investigation.

- Investigate how water is used in and around your school. Walk around your school and identify where water is accessed and used (for example, taps, garden hoses or sprinklers, toilets, sinks, water fountains, pools, drinking fountain, dishwasher).
- Write down as much information as you can about what you discover. Consider taking photographs
 or drawing a simple map of your school which highlights where water can be found and is accessed.
 Ask your principal if they can provide a copy of a detailed plan of your school which shows
 plumbing and water access points.
- What did you discover during your exploration? Is water at your school being used responsibly or irresponsibly? How can water be used more sustainably at your school? Make suggestions.
- Write a report on the discoveries you made during the investigation. Include the following in your report: photos, labelled diagram, and a map.

Visit a sewage treatment plant

As a class, students will discuss ways that they can learn more about the sewage treatment process and what happens after you flush. For example, you may want to plan a trip to your local sewage treatment plant to gain insight into what happens at each stage of the sewage treatment process. Alternatively, if you are unable to physically visit a sewage treatment plant go on a <u>virtual tour!</u>

Use the following framework to guide your students, before, during and after your excursion to a sewage treatment plant.

What do I already know about the sewage treatment process? What do you think the plant will look like? How big do you think it will be? Find it on a satellite map. Where is it? How far is it from your school? What do I want to learn? Make a list of 5 questions to ask an expert. What do I need to take with me? For example, a notepad, pencil, sketch pad, ruler and camera. During Record as much as you can during the excursion. What do you see, think and wonder?

After

Respond to one or more of the following questions:

- Name and explain one step in the water treatment process.
- What is removed from the water during treatment? List two things.
- What happens to the water after it leaves the sewage treatment plant?
- What can you do to ensure fatbergs don't form?

Activity: Choose a project

Individually or in small groups, students will choose one of the following projects to work on and then present their findings to the class.

Dirty water project

Experiment with different materials to turn dirty water into clean water. Materials: dirt, water, rocks, cotton balls, cup, kitty litter, coffee filter and a plastic bottle cut in half. What worked well and what didn't work so well?

Take the lead

Get your students to take the lead in educating their school or families about how to protect our sewers! Students will create their own lesson and teach it.

True or false?

Find out as much as you can about fatbergs and the sewage treatment process. Create a true or false quiz and test your classmates. Alternatively, create a word find or crossword.

National Water Week

Think of a way that your class or school can get involved and celebrate National Water Week in October. Find a water expert to talk at your school.

Useful Websites

- <u>Fatbergs</u> BTN
- What is a fatberg? Newsround
- New 'flushability' standard will help to end 'fatbergs' from clogging our sewerage network ABC
 News
- Fatbergs can cost millions to remove each year. Here's how to stop them ABC News
- <u>Fatbergs targeted by SA Water jingle and social media campaign about what waste to flush</u> ABC
 News