

Grade: 5 & 6

From the sink to the sea

Students will be able to:

- understand what happens to wastewater from their home
- learn how to reduce the contamination of wastewater
- establish the link between what they put down the sink in their home and the environment

Lesson Details:

1. Your toilet is not a rubbish bin.

Over the years the sinks and toilets in our homes have become a convenient way to dispose of a range of things. In our own homes, everyday, we contribute to contaminating water and, by default, the environment. Explore with students how water in their home may be contaminated.

- Ask the students to draw a plan of their home or seek a copy of a plan from their parents
- Students can seek advice from their parents about where on the property the sewerage connection is. There should be an inspection opening and an overflow relief gully. Mark these on the plan and include any external drains
- Identify where the plumbing is inside the house. Use different coloured pens for water and sewerage
- Research where the sewage from their home goes and where the effluent is released
- In each room that has plumbing students should identify contaminants such as cooking oil or fat in the kitchen, cotton buds in the bathroom, wipes, nappies or sanitary products in the toilet, paint in the garage.

Learn about better ways to dispose of these products because when they enter the sewer they can potentially cause major blockages, sewage spills and pollution to the environment.

Develop a campaign that will help educate people about why we don't use our toilets and sinks as garbage bins.

Curriculum Links

Grade 5

Science

- ACSSU077
- ACSHE083
- ACSHE217
- ACSIS086

Literacy

- ACELY1709

Geography

- ACHGK029

Organising World Views

- OI.5
- OI.9

Grade 6

Science

- ACSSU219
- ACSHE100
- ACSHE220
- ACSIS103

Literacy

- ACELY1719

Did you know?

'Sewage' is the poo's and wastewater and 'sewerage' is the pipes.

Lesson Details continued:

2. So where does the sewage go?

Sewage, once treated will end up in the sea or river somewhere near you. That is why it's important to 'think before you sink'.

Sewage treatment is about two things - reducing environmental impact of effluent (keeping our beaches and rivers clean) and removing harmful organics, pathogens (disease causing viruses) and other bacterial, viral and parasitic diseases.

Sewage from your home will be pumped along a network of pipes until it reaches your sewage treatment plant. A screen removes large objects, sludge is removed, biological processes are activated to help break down solid matter, further sludge removal occurs and then disinfection is applied using either chlorine or ultraviolet light treatment (instantaneously neutralizes microorganisms as they pass by ultraviolet lamps submerged in the effluent).

Sewage treatment plants operate 24 hours a day, seven days a week, 52 weeks of the year. They are operated by a dedicated team of people who often have the unpleasant job of unblocking sewers or restoration of spillage sites.

3. Learn the history of your Sewage Treatment Plant.

Contact TasWater to learn about the history of your local sewage treatment plant.

- When was it constructed?
- What happened to sewage before there was a treatment plant?
- Why was the location selected?
- What towns does the plant service?
- What industries use the plant as well?
- What happens to the sludge?
- How long does it take for sewage from my house to reach the plant and be treated?

Lesson Reflection:

1. What are some of the things that end up being flushed down sinks and toilets that should go in a bin?
2. Where does sewage go to be treated and how is it treated?
3. Where is your local sewage treatment plant and where is the effluent released?
4. Will you change your disposal habits at home to environmentally friendly ones?



Did you know?

The toilet is considered the most marvellous and effective medical invention of the 20th century.

More Information

Contact our Education Officers who can visit your classroom and share some engaging water activities with your students. Alternatively visit our website, complete an online form, submit and our Education Officers will contact you.

Email: education@taswater.com.au

Website: www.taswater.com.au

Additional Activities

Research the earliest toilets in history. Who invented the toilet? Why is it the most effective medical invention? When did toilets become popular? Did only rich people have toilets? What type of toilets do some places in Asia have? What are the alternative names for toilets? When did water efficient toilets get introduced?