

Grade: 3 & 4

What happens after I flush?

Students will be able to:

- understand what happens to wastewater after it leaves their home
- learn to reduce contamination of water in the home
- understand the connection with wastewater and the environment

Lesson Details:

1. What happens after the flush?

The majority of people's homes are connected to a sewerage system. That is a network of pipes under footpaths and roadways where wastewater is pumped away from homes and businesses to a Sewage Treatment Plant.

At the plant, wastewater is screened to remove things that can't be treated, like wipes, nappies, cotton buds etc. The wastewater is pumped into large tanks where the sludge (solids) is separated from the wastewater.

The wastewater is pumped to another tank where big stirrers whisk the water creating air bubbles. In this tank are microbes - they are hungry little creatures that love to eat wastewater. So in other words, we use a natural biological process to treat our wastewater.

From that tank, the wastewater travels to a clarifier where further separation of sludge and wastewater occurs.

The wastewater is disinfected with either chlorine or ultra violet light (UV) treatment before being pumped into the river or sea while the sludge is taken away to either be made into fertilizer (strict guidelines apply) or placed in land fill.

Have students watch Unity Water's dvd on sewage treatment:
<http://unitywater.com.au/video>

2. Investigate the sources of wastewater.

Ask students to think about the areas in the home where wastewater is created. Brainstorm and share. Include appliances.

Curriculum Links

Grade 3

Science

- ACSHE050
- ACSHE051
- ACSIS055
- ACSIS060

Literacy

- ACELY1676
- ACELY1792

Grade 4

Science

- ACSSU073
- ACSSU075
- ACSHE061
- ACSHE062
- ACSIS066
- ACSIS071

Language/Literacy

- ACELA1488
- ACELY1687
- ACELY1688

Geography

- ACHGK022
- ACHGK025

Organising Ideas (Cross Curr.)

- OI.2
- OI.9

Wastewater is also called sewage.

Lesson Details continued:

3. Oh no! The sewerage pipe is blocked!

There are many things we find arriving at our Sewage Treatment Plants that should've been placed in a rubbish bin. We have also found many things in our sewerage pipes and pumps that have caused a blockage, backing up sewage into homes and causing overflows.

Why does this happen? Quite simply through laziness, it seems easier to flush things away rather than place them in a bin.

At TasWater we don't want to see the following things in our sewerage system:

- Wipes
- Cotton buds
- Sanitary items
- Underpants
- Food scraps
- Nappies
- Fats and grease from cooking
- Paint

Students should think of better ways to dispose of these products. Research the options on the internet and develop a campaign to educate other students.

4. Imagine if sewage wasn't treated.

Just think about the impact of raw sewage on our beaches or in our rivers? What would it smell like? Would it be unsightly? Would the river or sea be safe to swim in? Would you like to play at a beach where sewage has spilled? Too many nutrients in the water can impact birds and fish and encourage the growth of algae. Treating sewage ensures we protect the environment and public health.

Lesson Reflection:

1. How is (wastewater) sewage treated?
2. Why do we treat sewage?
3. What can you do to make sure that the right waste is going down your sink drains and toilets?
4. Why do you think modern sinks come fitted with a strainer? Why is there a filter in dishwashers and washing machines?



Did you know?

The only thing you should ever flush down the toilet is body fluids and toilet paper. We can't treat wipes, cotton buds etc.

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 request form and our Education Officers will contact you.

Email: education@taswater.com.au

Website: www.taswater.com.au

Additional Activities

Take your students on a journey through a real sewage treatment plant by having TasWater come to your classroom. We can set up a pretend plant and introduce students to all the amazing bugs that help treat our wastewater. We base our activity on the local treatment plant servicing your community so you know what happens when you flush!