07/25 – Version 1

Flushed!

Learning Objectives

Students will:

- Know what sewage (wastewater) is.
- Learn that we need to protect our sewage pipes.

Inquiry Questions

- What happens when we flush the toilet?
- What happens when you pull the plug our of the sink?
- Where does the bath water go?
- How do we protect our pipes?
- How can we protect the environment?

Time	Approx 30 minutes
Curriculum Alignment	**Science > Science as a Human Endeavour > Foundation to Level 2** **Science Understanding > Earth and space sciences** Students learn about: - taking care of Earth's water, land and air involves consideration of reducing, re-using and recycling materials to conserve Earth's resources VC2S2U09 **Humanities > Geography > Foundation to Level 2** **Geographical Knowledge and Understanding > Places and our connections to them** Students learn about: - the places in which they live, why their places are important to them, the features of places, and how places can be looked after VC2HG2K01
Key Vocabulary and Terms	• Sewage • Wastewater • Treatment • Pipes • Drains • Environment

Teaching and Learning sequence	Resources
<u>Orientation</u>: **Activity:** Provocation questions **Time**: 5 mins. **Purpose**: Draw on prior knowledge and provoke curiosity by challenging students to think about what happens to the water we send down the drains and toilets at our house. What happens when we flush the toilet? What happens when you pull the plug out of the sink? Where does the bath water go?	Use provided slides to support all activities. Record answers on whiteboard.
<u>Body</u>: **Activity**: What is wastewater? **Time**: 5 mins. **Purpose**: Students see the various ways that we all create wastewater. Using the graphic cross section of the house, prompt students to identify places that wastewater is created in the typical home.	Use provided slides to support all activities.
Activity: Story of a Sewage Pipe **Time**: 15mins. **Purpose**: Build on the mind map activity by reinforcing how: - We all create wastewater; - We should take care with what we send down the drain. *Note: There is a bit of prep involved with activity, but it is a fantastic way to demonstrate how we all create wastewater. Please dispose of your 'wastewater' thoughtfully once complete.* Starting with a jug/container of clean water, nominated students are given a character from the story (Resource A). As the teacher narrates the story, each character/student will come forward and add their 'pollutant' to the water. At the end of the story we have a pretty foul mixture, demonstrating concretely what wastewater is made up of: an aggregate of all our activity and usage. Take time to reflect on and emphasise these conclusions: - We use and pollute water in many ways – resulting in the need to clean it. - In modern towns and cities, we create a lot of wastewater. - We need to clean this water for the benefit both our health and the environment.	**Resource A**: Story of a Sewage Pipe and Character Cards. Prepared small containers of: A. Milk B. Wet wipe and ear buds C. Coffee mixed with water D. Soapy water E. A bit of colourful paint mixed with water F. 'Spew' – a mix of milk and cornflakes will do. G. A small amount of cooking oil H. 'Wee' – water with yellow food colouring
Activity: What can you do? **Time**: 5mins. **Purpose**: Share actions that students can take to protect our pipes. - Talk through the list of actions that we all should and shouldn't do to look after our pipes. Highlight the consequences for our health and environment if we don't. - Complete the quiz as a class to check understanding.	

Continuing learning and extension	Resources
Activity: Pipe Pledge **Purpose**: students show their learning through the creation of a pipe pledge about how they will help protect our pipes. Provide students with Resource B: - Write their pipe pledge in the box. - Creatively colour and illustrate your pipe. - Cut and connect your pipe with your class! By looking after our pipes, we can make sure our health and the environment are protected. The connected pipes make an excellent display for the wall of the class as they all connect.	Use **Resource B**, Pipe Pledge Template. **Resource C** contains examples to guide student work.