

3Ps – Pee, Poo & Paper !

Overview of Activity:

The Toilet is only meant to flush the three Ps – pee, poo and paper (toilet paper). Unfortunately, many people flush lots of things down the toilet, such as, medications, wipes (disinfectant and ‘flushable’), cigarette butts, dead fish, kitty litter, surgical gloves, etc. Flushing these things down the toilet can cause home pipes to clog! Also they can damage our sewer systems as well as cause contamination in our rivers and lakes.

Outcomes:

- Understand how a waste water gets from your house to the waste water treatment plant
- Why it is important to only flush the 3Ps down the toilet
- Learn how a Waste Water Treatment Plant works

Purpose:

- human waste and toilet paper should be the only things going down the toilet
- flushing other items can damage our sewer systems and pollute our rivers and lakes (water we drink, swim and fish in)

Materials Needed:

Experiment 1 -4 plastic container or mason jars -where does it go when I go (poster) -water treatment plant (photo) - toilet paper -baby wipes/ flushable wipes/ disinfectant wipe - coconut oil -coffee grinds	Game - 1 small bucket - 8 popsicle sticks (pictures of pee, poo, toilet paper) -8 popsicle sticks (pictures of things that can't be flushed, list below) - rope (1 long, 3 short) -CLOG on a popsicle stick (stop sign) -3 toilet seats (or ring to represent toilet seat) - 3 photos of homes/ apartments/ etc.
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Experiment 1

Setup;

- pour clean water into each plastic container
- place one of the following items in each; toilet paper, baby or disinfectant wipes, coconut oil, coffee grinds
- label each container
- shake each container each day for the next 7 days

Observations;

- view the poster “where it goes when I go”
- view the waste water treatment plant
- view the plastic containers each day
- record your observations of what is happening in each

Discussions;

Ask: “Does anyone know which room in their house uses the most water?”

-the bathroom uses the most water – and most of that (40%) is used flushing the toilet

Ask:” Where does all the water and waste that gets flushed down your toilet go?”

- The water and waste goes into the sewer system. The sewer system (refer to poster – “where it goes when I go”) is made up of networks of pipes that eventually end up at the Waste Water Treatment plant

Ask: “Do you know what happens at the Waste Water Treatment Plant?”

- The Waste Water Treatment Plant is a place where sewage, or the three Ps (poo, pee, paper) go to be separated and removed from the water, so the water can be cleaned/ treated and returned to the Grand River (Region of Waterloo) or Speed River (Guelph)

Observation

Item	Day 1	Day 7	Day 14
Wipes			
Toilet paper			
Coffee grinds			
Coconut oil			

The Game (need 2+ children)

Now we are going to demonstrate how the sewer system works when it is working properly.

- Place a child at the end of the longest rope – this child will be the Wastewater Treatment Plant
- Have a child go to each 'home', when you call "Flush", they will leave their toilet, pick up a stick (of either pee, poop or toilet paper) and walk down the pipe to the Waste Water Treatment Plant
- When the child reaches the Wastewater Treatment Plant, he or she gives the stick to the student representing the plant and returns home
- Begin the activity by calling "Flush!" Allow each child to go through the process once
- Explain that this is how a sewer system works, when it is working properly
- Now we are going to demonstrate how the sewer system works when it is not working properly:
- Place a child at the end of the longest rope- this student will be the Waste Water Treatment Plant (make a different child than before)
- If the child has a picture of 'other', yell 'clog' and have the students stop along the rope
- Have the other children continue until a back up is caused out of one of the toilets. OH NO! Something we flushed down the toilet has caused a problem in our system.
- Let's go look at the plastic containers to find out what the problem could be.
- Explain what is in each beaker – have them describe what the material looks like after being in water and mixed around. (eg. The toilet paper looks like it is breaking down, the oil looks like it is thick and sticky, etc.)

Conclusions;

- Have the children pick a popsicle stick with a picture on it out of the bucket (the same ones used in Part 1)
- Ask them to tell you what pictures they have selected. Then ask them if this is an item that should be flushed down the toilet? Why or why not? What could happen?

Possible Answers –

- **Fats, oils and greases (FOG)**, should never be poured down the sink or in the toilet. IT sticks to the inside of the sewer pipes, hardens over time and may cause sewage to back up and cause sewage spills in your home or on your street and right into the river – EWW! Pouring hot water as you pour the grease will not help either. It only breaks up the grease temporarily. Best way to get rid of it is to let it harden/ cool, mix it with other absorbent materials, place in a the compost bin (or in a bag in the trash)
- **Disinfectant wipes, diapers, Baby wipes, Personal wipes (hand, face, etc.), paper towels** – these items are made of material that do not break down and can cause all pipes to clog. The garbage is the place for these items. (or green bin – compost). Better yet, use reusable diapers, wipes and towels!
- **Kitty Litter** – kitty litter will clog the pipes in your home. Also, cat poop can carry parasites (toxoplasmosis) that can be harmful to people. Just pit it in the trash (or compost bin)

Background Information;

Definitions

- Sewage is the term used to describe the mixture of water and human waste
- Sewer system is the term used for the network of pipes, that carries the sewage from your toilet to the Waste Water Treatment plant
- Region of Waterloo has 13 Wastewater Treatment plants
- City of Guelph has 1 Wastewater treatment plant

Find photos of the following

Things you can flush; pee, poo, paper (toilet)

Things that can't be flushed; disinfectant wipes, oil (coconut, vegetable, olive, etc.), paper towels, coffee grinds

Print and cut out to place on popsicle sticks

Item	Toilet	Garbage	Green Bin
Wipes, disposable wipes and disinfecting wipes, including flushable wipes	X	√	X
Bandages and wraps	X	√	X
Extinguished cigarettes	X	√	X
Coffee grinds, egg shells, and food	X	√	√
Cotton balls, pads and swabs with a rolled paper or wooden rod	X	√	√
Cotton swabs with a plastic rod	X	√	X
Dental floss	X	√	X
Disposable diapers and baby wipes	X	√	X
Disposable toilet brushes cleaning sponges	X	√	X
Fats, oils and grease	X	√	√
Hair	X	√	√
Paper towels and napkins	X	√	√
Toilet paper	√	X	X

√- Correct method X – don't put it here