

Lesson 8 -You put what down the toilet?

Before you start this session, please:

- Print Activity sheets 8:1 and 8:2
- Make sure you have access to the internet so that you can watch video clips on YouTube.
- Or print Supporting Information sheet 8:1
- Collect together the following items to help you complete the experiment and activities in this lesson.
 - Paper, pencil and ruler
 - 4 cups or glasses, toilet paper, wipes, kitchen roll, newspaper and a timer.



Let's get started

What can you remember?

In the last session you looked at the Water Recycling Treatment Process and how we clean your used water before returning it to the environment. Can you remember the first thing that happened to the sewage when it flowed from the sewers into the treatment works? Yes, it goes to the inlet to sieve out all the rubbish.

You can watch part of the Water Recycling video in the Education Playlist to remind you. If you can't watch the video, take another look at Supporting Information sheet 7:1.

Why do you think there are so many 'unflushables' in the sewage? Can you remember what some of these are?

Let's investigate:



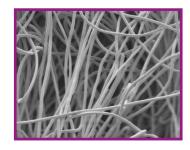
Now you are going to look at what happens to different materials when you put them into water to find out whether they should be put down the toilet. Watch the video clip <u>Testing materials</u> on the Education Playlist or go to Activity sheet 8:1.

What are they made from?

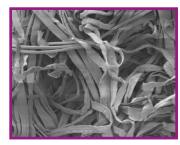
Take a look at these images of wet wipes and toilet paper:



Toilet paper is made from natural fibres (cellulose).



Wet wipes are made from manmade plastic fibres (Polyethene terephthalate).



Some wet wipes are labelled flushable but without the 'Fine to Flush' logo. These are made from natural fibres and manmade plastic fibres.



How can you tell which are natural fibres and which are not? Look out for the Fine to Flush Logo. This logo on wet wipe packaging means that you can flush the item because it will break down (bio-degrade) in the sewers and so won't cause blockages.



Why Keep It Clear?

Every 15 minutes Anglian Water has to deal with a blocked pipe or sewer because something has been put down the sink or toilet that shouldn't have been.

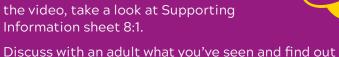
Did you know?

- 2/3rds of all the blockages could be avoided as they are caused by fats, oils and grease together with food waste going down the sink, or wipes and other items being flushed down the loo.
- By the time a child is two years old they will have gone through, on average, 17,500 baby wipes and 4,500 nappies.
- If you piled all the skips filled with inappropriate waste taken out of our sewers each year on top of each other, there would be almost enough to reach as high as Mount Everest.

• The amount of fats. oils and grease in our sewers would fill eight Olympic-sized swimming pools.



Watch Lottie's Vlog on the Education playlist. Don't worry if you can't see the video, take a look at Supporting Information sheet 8:1.



what happens to fat, oil and grease in your kitchen. Do you need to think about what your family does?

Can a grown-up help you find out what your local council tells you to do?

How could you remind people in your home to do the right thing?





Try this quick quiz on your grown-ups

1. How many kilom	etres of sewer pipes	does Anglian Water look after?							
a) 1,363km - enough to reach from one end of the UK to the other									
b) 40,000km - 6	enough to go around	the world once							
c) 77,000km - a	lmost enough to go a	around the world twice							
2. Approximately h	ow many blockages o	do we clear in a year?							
a) 30,000	b) 20,000	c)10,000							
3. How many tonne	s of wipes do we rem	ove from our sewers every week?							
a) 250 tonnes	b) 800 tonnes	c) 500 tonnes							
4. What percentage of people, according to a national survey, pour oil and fat down the sink?									
a) 27%	b) 17%	c) 7%							
5. Which of these c	an be flushed down t	he toilet?							
a) Cleaning or r	nakeup wipes								
b) Fine to Flush	wipes								
c) None of thes	е	_							

Challenges:
Now have a
go at some
of these:

Create a leaflet to share 'Keep It Clear' messages with your family.

Remember to decide who your leaflet is for - your audience - i.e. adults, children, etc.

You could focus on what goes down the toilet or sink, or both!

OR

- Create a poster to go in your bathroom to remind people what not to flush down the toilet.
 - Give it a catchy slogan and use colours that will stand out.
- Don't forget to complete the wordsearch on Activity sheet 8:2.

See if you can find the words faster than the other people in your home.

Quiz question answers: 1. c) 77,000 km 2. a) 30,000 3. b) 800 tonnes 4. a) 27% 5. b) Fine to Flush wipes





Testing materials

You will need:

- 4 glasses/cups or bottles with lids
- 2 sheets of toilet paper
- A wipe without the Fine to Flush logo
- · Some newspaper
- A piece of kitchen roll
- A clock or stopwatch
- If you have a wipe with the Fine to Flush logo, add another cup or bottle
- Add the same amount of water to each bottle, glass or cup to make it a fair test.
- Add a different ingredient to each glass, cup or bottle
- Stir the contents of each glass or cup and carefully shake each bottle. Make sure you stir or shake each one the same number of times.

!!

Don't worry if you don't have all the items - just test what you can.

What happened to the items in the water?

Which item started to break down (disintegrate) the quickest? Find out what the different materials are made of.

Why don't the wipes behave like the toilet paper? What are they made of?

Make your own table like the one below (draw with a ruler or you could use a computer) showing the items in your investigation and record what happened to them. You might like to leave the items in water till the next day, or week. Remember to observe and record.

Material/ item	After 1 minute	After 15 minute	After 1 hour	After 1 day	After a week	Man-made or natural?	Flush it or bin it?
Toilet paper							
Wipe (e.g. toilet wipe, baby wipe, cleaning wipe)							
Newspaper							
Kitchen roll							







There are lots of ways to help keep pipes clear.

Find the following words hidden in the word search.

BATHROOM	MICROBEADS
BIN	NAPPIES
BLOCKAGE	PIPES
COOKING OIL	POLLUTION
COTTON BUDS	RECYCLE
ENVIRONMENT	SEWER
FAT	SINK
GREASE	TOILET
KITCHEN	WIPES

Т	K	S	Α	N	Ν	Υ	Е	F	W	Е	С	0	S	Р
Q	Е	1	D	Т	R	R	Ν	D	R	Е	Е	С	Е	Ν
Q	J	L	Т	Α	Ε	Р	٧	Р	Р	Е	0	Н	Р	0
M	Н	D	I	С	Е	Q	1	Z	M	0	0	L	1	1
S	Е	Z	Υ	0	Н	В	R	0	K	С	F	W	Р	Т
Н	F	C	D	U	Т	Е	0	I	Ν	Α	M	R	S	U
Т	L	K	M	R	W	R	Ν	R	Т	F	W	M	R	L
Е	X	X	N	M	Н	G	M	C	С	Υ	Υ	Ε	X	L
Е	Α	٧	С	Т	0	F	Е	В	Е	1	W	W	Ν	0
S	N	Н	Α	1	C	X	Ν	I	M	Е	M	U	Α	Р
S	1	В	L	W	K	U	Т	Ν	S	Z	R	G	Р	Ν
В	U	N	I	Ν	В	L	0	C	K	Α	G	Е	Р	Ν
D	D	Р	K	В	R	Р	Ε	S	Α	Е	R	G	1	G
D	S	D	U	В	Ν	0	Т	Т	0	С	Р	0	Е	1
W	1	Р	Е	S	F	1	K	Z	D	K	В	Q	S	L

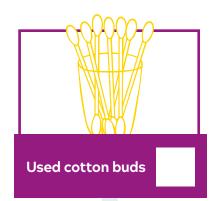


Down the drain

Ask a grown-up to help you fill in the boxes to show how often you and your family do the following.

Then follow the routes to find out how items should be disposed of.

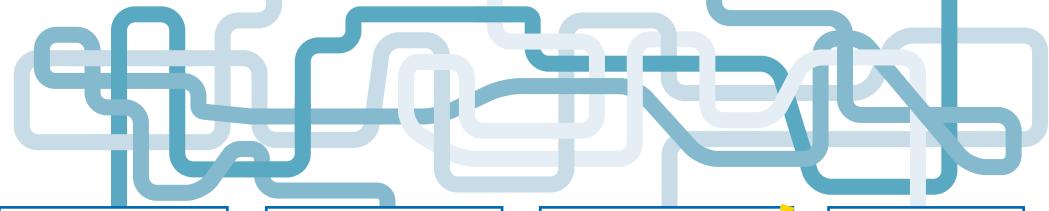






face wipes

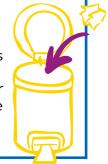




Scrape off food waste

Before washing pots, pans and plates, scrape food waste into a bin or recycle it. Use a sink strainer to stop food scraps going down the plughole.





Recycle cooking oil

Fat, oil or grease from cooking should never be poured down the sink. Ask a grown-up to find out the best way to dispose of it.

Bin cotton buds

Cotton buds should always be put in the bin after use.

