

OBJECTIVES

- To identify hidden plastic in everyday items
- To understand how to dispose of items containing hidden plastic

RESOURCES

- Unused:
 - Wet wipes
 - Cotton buds
 - Nappies
 - Toilet roll
- Butter
- Lard
- 4x 250ml bottles (with caps), half-filled with water
- A4 print-outs of images below:



Source:

<https://i.ytimg.com/vi/YJqLxBI9CRM/maxresdefault.jpg>



Source: <https://www.nationalgeographic.com/content/dam/photography/PROOF/2017/September/seahorse-indonesia-trash/hofman-seahorse-wpy.jpg>



Source: https://www.greenpeace.org.au/wp/wp-content/uploads/2016/07/GP0STPYWJ_Web_size.jpg



https://s0.geograph.org.uk/photos/50/43/504307_10ee193b.jpg



https://s0.geograph.org.uk/geophotos/03/78/97/3789774_e16c72e8.jpg

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SESSION

- Set the scene about plastic: ask the class to suggest items that they know are made out of plastic
- Tell the class about when people started to use plastic when making products - and why. What are the qualities of plastic?
- Tell the class that a lot of these qualities (such as being durable and lasting for a long time without wearing out) actually makes plastic dangerous to the environment
- Show the pupils the three images above and ask them to describe what is happening in them. Tell the class about how plastic doesn't biodegrade, which leads to plastic pollution. Talk about the impact this has on the environment and wildlife
- Introduce the idea of hidden plastic - there are lots of everyday items that we use in our daily lives that contain plastic, without it being obvious that they contain plastic. Show them examples of these items that contain hidden plastics: wet wipes, nappies, teabags, cotton buds. Explain where the plastic is contained in these items and give the class some of the items to feel, pull and test the strength of
- Because this plastic is hard to see, it can lead to people disposing of them incorrectly - because they don't know they contain plastic. This means that they can also end up polluting the environment, hurting animals and causing blockages in drains and sewers
- Introduce the concept of flooding. Ask the class if anyone knows what it is. What happens when an area floods?
- Show the class pictures of flooding and the impact it causes to homes and the surrounding area
- Explain that items made out of plastic or hidden plastic often find their way into drains and sewers and become stuck there, because they don't biodegrade. Then, when other items that shouldn't go down the drain - such as fats, oils, grease, and food crumbs - get put down the drain, they combine with the plastic items to cause big blockages called 'fatbergs'

SESSION

- Divide the class into four groups and give each group a bottle half filled with water. With everyone gathered around the first group, put some toilet roll into the bottle and choose a volunteer to come to the front. Remind the class that toilet roll contains no hidden plastic. Screw on the bottle top, and get the volunteer to shake the bottle for 10 seconds
- Ask the class to observe what happened to the toilet roll. Explain that it broke down into small parts - that means it degrades, and that's because it contains no plastic. Ask the class - do you think toilet roll gets blocked in sewers and drains? Ask them if they think it's ok to flush toilet roll
- Go to the next group and add a wet wipe into the bottle. Remind them that wet wipes contain hidden plastic. Ask a volunteer to shake the bottle for 10 seconds and observe what happens this time. Ask the class - do you think wet wipes get blocked in sewers and drains? Ask them, therefore, if they think it's ok to flush wet wipes
- With the next group, add tissue paper, lard and butter into a bottle and repeat the process with a volunteer. Observe what happens
- With the final group, add wet wipes, cotton buds, lard and butter into a bottle and repeat the process with a volunteer. Observe what happens - the items should congeal together. Explain that this is what is happening in our drains and sewers all the time when wet wipes are flushed
- Tell the class to remember that only the 3Ps - pee, poo and (toilet) paper - should go down the toilet and that anything containing hidden plastic needs to go in the bin