Would U Drink this Water? - Activity

Use the Earth's water to introduce the idea that of all the Earth's water only a very small portion of it – just 4% - is fresh. Fresh water is the water that we need to stay alive – **so how are we treating this rare resource?**	We are going to share this story of water that starts life in fresh water spring and travels down over the land to the sea. Everyone sits down in the dome – share out the containers of waste. Tell the story: place a magnetic picture of each event on the whiteboard and ask the person with the identified waste to add some of their container contents to the jug – keep stirring.	Brainstorm: Revisit all the events in the story and collect ideas of how they could be prevented. Remember prevention is better than cure. **Challenge: Each student identify a behaviour they could change to help with our clean water crisis.**

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Where's the Water?

Part 1

There are about 1,386 thousand million cubic kilometres of water on Earth.

This 1L measuring cylinder represents all that water on Earth.

Pour in 970 ml water – this is all salt water in the seas, so we can't use that.

Pour in 30 ml 'fresh water' (cooking oil dyed blue, which floats on top, or something similar) – this is all the fresh water there is on Earth.

Part 2

But we can't actually use much of the fresh water either.

This 1L measuring cylinder represents all the fresh water on Earth.

Pour in, or dispense from pipette (need to experiment with simple liquids that stay in layers, such as water, cooking oil, kerosene – use food colouring, enamel paint in kerosene):

696 ml	icecaps at north and south poles, glaciers, water frozen under ground
300 ml	water in the ground
1 ml	water in the atmosphere (not much, if all the clouds in the sky fell as rain at the same time, the Earth would only be covered by 3 cm of water), plus water that is unusable – in swamps, inside plants and animals that leaves water we can get at easily to use:
3 ml	water in lakes and rivers (we get most of our water from rivers, which would only be 0.06 ml)

This is on a global scale, here in our region of New Zealand a lot of our water comes from the ground (so it is called groundwater) rather than rivers.

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