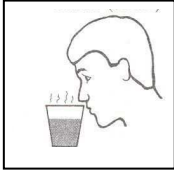


Water & a Healthy Environment

1. SNIFF TEST ACTIVITY



A comparative sense-making challenge



What do we need?

- 4 clean glass / plastic containers
- Plastic dropper (in pack)
- Pure bottled water
- Different liquids, e.g.:
 - Jik
 - Urine
 - Dish washing liquid
 - Diesel

Questions we are asking, and how we plan to take our investigation further:

What do you think the 'sniff test' activity is telling us? From our findings, would we be able to say whether or not the water is safe to drink?

How do we know that it would it be risky to use our sense of taste to check the water (or any unknown substance)? Was it helpful to look at the colour of the water? What other senses could we use (without risking our health and safety) to get a better sense of what the water is like? What could our sense of touch tell us? Would it be wise to touch the water without wearing protective gloves, if we are not certain about the level of pollution in the water? Could we wash and swim in untested water?

How could our sense of hearing help us get a better sense of what is happening in the river environment? What do we know about flowing water, compared to still or stagnant water?

Did you know that if a river is contaminated with cement (very alkaline), living creatures will die? How do you think battery acid would affect the water? How would this be reflected on a pH test strip?

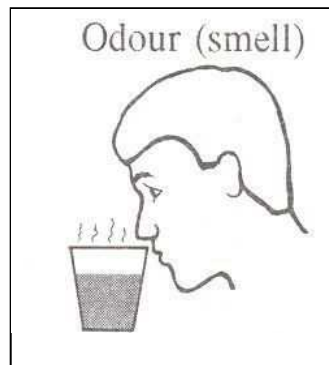
How could we find out more? What could we do next to take our investigation further?

How do we use the kit?

Here, we are starting out by using our senses - to get a sense of what is in the water. This helps us get an idea of what kinds of environmental issues and risks we may encounter in our water. Here is a suggested learning activity:

Sniff test activity: a comparative sense-making challenge!

- Put pure bottled water (from the shop) into four clean containers.
- Keep one as pure water, and label (A).
- Use the dropper to add different liquids to the other four containers of water (each time, rinse the dropper afterwards). Label (B), (C), (D), (E). For example, you may use:
 - 1 drop Jik (chlorine)
 - 1 drop urine (from a volunteer)
 - 1 small drop of dish washing liquid
 - 1 drop diesel
- Let everyone sniff each container.
- What odour could you smell?
- Did your sense of what was there match with what was actually added into each container?
- You may also wish to also test the pH of each sample (how acid or alkaline it is).



- For fun, someone else in the group may like to put a drop of one or two secret liquids (e.g. perfume, insecticide), or even cow dung, into a container of water. Then see if the rest of the group is able to identify it.
- What happens if two or three smells are combined?
- Discuss how our sense of smell can help us test water.
- Take a careful look at the contents of each container. Can you see any difference between each one?
- Are there any links between what you smell, and what you see?
- Does it help to use a combination of different senses?
- Is it wise to use your sense of taste to check the water?

Looking at our own water: take a look, have a smell, listen ...

- Now take a sample of water from your river/stream/pond and do the same sniff test activity.
- Check the pH of the water.
 - How does the water look?
 - Can you see litter in the river or on the banks? What kinds of litter can you see? Where do you think it comes from?
 - Can you hear the sound of running water? What could this tell us?

