



e-Bug

Why use soap?

In this experiment you should pretend that the pepper in the bowl is the dirt and germs on your hands. At the end of the experiment can you answer the question

“Why do we use soap to wash our hands?”

Ingredients

- 1 Bowl
- Some water
- A Sprinkle of black pepper
- Hand soap or washing up liquid
- A Towel
- A Pen
- A Notebook
- A Camera (optional)



Method



1 Half fill a **bowl** with **water**



2 Sprinkle some **pepper** onto the surface of the **water**.



3 Dip your finger into the centre of the **water** and **record** what happens to the **pepper**.



4 Dry your **hand**, and then dip your **finger** into the **soap**



5 Dip your **soapy finger** into the **water**. **Record** what happens to the **pepper**.

Explanation

When you dip your dry finger into the water nothing really happens, you just move the dirt (pepper) around your hands (the bowl). When the soap is on your finger the pepper will move out towards the edges of the bowl. The soap will break up the natural oil on your hands that microbes can stick to. The microbes then get caught up in the soap bubbles and get washed away. Without soap, the oils are not broken down, and microbes find it easier to stick!