

Soap and pepper experiment



10 - 15 mins



Children using soapy cocktail sticks in a bowl of water and pepper to visualise how soap works on our hands

Learning objectives

- Microbes can 'stick' to the natural oils on our hands making them hard to remove with water alone
- Soap removes the oil on our hands and helps wash microbes away

Equipment

- Shallow bowls or dishes
- Access to fresh water and soap
- Ground pepper or other spice such as cinnamon
- Cocktail sticks

Activity Instructions

1. Fill the bowl with water and sprinkle the ground pepper or spice across the surface of the water.
2. Demonstrate this activity to the group first. Tell children that the surface of the water represents their hands, and that the pepper represents harmful microbes that need to be washed away.
3. Dip the end of a cocktail stick into a plain bowl of water and then dip into the pepper water. Nothing happens to the microbes, using water alone to wash your hands only moves the microbes around.
4. Dip the cocktail stick into a bowl of soap and then into the pepper water. The pepper 'microbes' should move towards the edges of the bowl as the soap hits the surface of the water.
5. Tell the children that this shows why using soap when you wash your hands is important, because it breaks up the oils on the surface of your hands that microbes stick to and then they can be rinsed away under running water.