# The Secret Science of Mixtures

## Year 4 • Snow-Day Activities

**Choose two or three activities each day.**

**Explore with an adult. Use plastic containers, wipe up spills and never taste experiment mixtures.**

### States-of-matter detectives

Find five solids and three liquids at home. Draw and label them. Explain how their properties differ. Where is there gas, even when you cannot see it?



Oak National Academy

### The melting-ice challenge

Put equal-sized ice cubes in identical plastic containers in two different places indoors. Predict which will melt first. Check every five minutes and record the changes. Keep away from electrical equipment.



NUSTEM

### Mixture detectives

Add a small spoonful of sugar, salt and flour to separate cups with equal amounts of room-temperature water. Stir each equally. Predict, observe and draw. Which substances dissolve?




**Dissolving and melting are different processes.**

Science World

### Can you clean up a spill?

With an adult, add a little vegetable oil to water in a shallow container. Compare cotton wool, kitchen paper and a sponge for collecting the oil. Use equal-sized pieces for a fair comparison.



Science Sparks

### Where did the droplets come from?

Dry the outside of a plastic cup, then add cold water and ice. Watch for droplets on the outside. Draw what happens. Explain where the water came from.



American Chemical Society

### Bubble scientists

With an adult, follow a bubble-solution recipe. Use a bubble wand to make different-sized bubbles. What gas is trapped inside them?



Science World

### Optional snowy challenge

Ask an adult to collect a small container of snow. Mark its starting level and watch it melt indoors. Is the final water level what you expected? Explain using: solid, liquid, temperature and melting.

**My prediction → What I did → What I noticed → My explanation**

