

Using a fume cupboard safely

Why use a fume cupboard?

Fume cupboards are there to protect you from breathing in harmful fumes, vapours, gases, and dusts during experiments. They work by drawing air away from you and venting it safely, so it's important to use them properly.

Before you start

- **Know the Purpose** – Only use a fume cupboard for activities that require it, such as working with toxic gases, strong acids, volatile solvents, or dangerous dusts.
- **Check the Test Date** – A sticker or card on the cupboard should show that it has passed its Local Exhaust Ventilation (LEV) test within the last 14 months.
- **Inspect the Equipment** – Make sure:
 - The sash (clear sliding panel) moves smoothly and stays in place.
 - There are no cracks, damage, or blockages.
 - The airflow indicator shows safe levels once the fan is switched on.
- **Wear PPE** – Always wear safety glasses or goggles, and gloves if required for the chemicals you are using.

Setting up your experiment

- **Switch On Early** – Allow the fan to run for a short while before starting to ensure proper airflow.
- **Keep It Clear** – Place your apparatus at least 15–20 cm inside the cupboard, away from the sash opening, and never block the rear baffle.
- **Minimal Equipment Inside** – Only place the items you need for the experiment in the cupboard.
- **Avoid Draughts** – Don't set up near open windows, doors, or busy walkways as they can disrupt airflow.

During the experiment

- **Keep the sash low** – Work with the sash as low as possible, typically around chest height. This maximises protection.
- **Stay Outside** – Never put your head or upper body inside the cupboard.
- **Move Smoothly** – Avoid quick or jerky hand movements, which can disturb airflow.
- **Monitor Continuously** – Keep an eye on your what is happening inside the fume cupboard, do not leave unattended.
- **Know What to Do in an Emergency** – If there's a spill, close the sash fully and alert your teacher immediately.

After you finish

- Turn off burners or other heat sources before removing equipment.
- Leave the fan running for a short time to clear any remaining fumes.
- Remove chemicals and apparatus – a fume cupboard is not a storage area.
- Wipe down surfaces if needed, wearing gloves and PPE.
- Close the sash completely before turning off the fan (unless your teacher tells you otherwise).

Key Don'ts

- Don't use the cupboard without permission or supervision.
- Don't store chemicals or waste in it.
- Don't block air vents with equipment or containers.
- Don't tamper with the airflow indicator or controls.

The fume cupboard is there to protect you – but only if you use it correctly. Follow these steps every time and you'll keep yourself and your classmates safe while working with hazardous substances.