



# SCIENCE LABORATORY

## Safety Guide

School Education

4

Key Benefits

16

Control Measures

19

Checklist Items

## KEY BENEFITS

### Hands-On Learning

Brings scientific concepts to life through hands-on investigation.

### Critical Thinking

Develops critical thinking, hypothesis testing, and data literacy.

### Teamwork Skills

Strengthens teamwork and communication during shared experiments.

### Career Pathways

Links learning to real world STEM pathways and careers.

**KEY HAZARDS & CONTROL MEASURES****Chemical Hazards**

- ✓ Safety goggles and lab coats mandatory
- ✓ Fume cupboard used for volatile substances
- ✓ Chemicals stored securely with clear labelling
- ✓ Staff trained in chemical safety

**Glassware Breakage**

- ✓ Heat-resistant glassware used correctly
- ✓ Proper handling techniques taught
- ✓ Damaged glassware disposed of safely
- ✓ Glass disposal containers provided

**Heat & Fire**

- ✓ Hair tied back, loose clothing secured
- ✓ Proper use of Bunsen burners demonstrated
- ✓ Fire extinguisher and blanket accessible
- ✓ Heat mats used for hot equipment

**Fumes & Ventilation**

- ✓ Fume cupboards used for volatile chemicals
- ✓ Experiments with fumes planned carefully
- ✓ Laboratory well ventilated
- ✓ Extraction systems regularly maintained

**PRE-SESSION SAFETY CHECKLIST****Risk Assessment**

- |  |   |
|--|---|
| <input type="checkbox"/> Complete and review risk assessment for this activity | <input type="checkbox"/> Ensure all identified hazards have control measures in place |
| <input type="checkbox"/> Brief all staff on key risks and emergency procedures |   |

**Laboratory**

- |  |  |
|--|--|
| <input type="checkbox"/> Benches clear and clean | <input type="checkbox"/> Ventilation working       |
| <input type="checkbox"/> Emergency exits clear   | <input type="checkbox"/> Fire equipment accessible |

**Equipment**

- |  |   |
|--|---|
| <input type="checkbox"/> Glassware inspected         | <input type="checkbox"/> Gas taps checked         |
| <input type="checkbox"/> Electrical equipment tested | <input type="checkbox"/> Fume cupboard functional |

**PPE**

- |   |   |
|---|---|
| <input type="checkbox"/> Safety goggles available | <input type="checkbox"/> Lab coats ready    |
| <input type="checkbox"/> Gloves if required       | <input type="checkbox"/> Hair ties provided |

**Procedures**

- |   |   |
|---|---|
| <input type="checkbox"/> Safety briefing given    | <input type="checkbox"/> Emergency procedures known |
| <input type="checkbox"/> First aid kit accessible | <input type="checkbox"/> Waste disposal planned     |



RISK ASSESSMENT  
WIZARD

# Take Your Safety To The Next Level

Create professional, customized risk assessments for your organization with our easy-to-use online wizard.

**390+**

### Activity Templates

Pre-loaded hazards & controls for every activity

**100%**

### Customizable

Add your branding & tailor to your needs

- ✓ Instant PDF & print-ready documents
- ✓ Store and update assessments online
- ✓ Add your logo & organization details
- ✓ Reuse and duplicate assessments
- ✓ Works on any device

**Start Free at [riskassessmentwizard.com](https://riskassessmentwizard.com)**

*No credit card required - Try it free today*