

HIAS MOODLE OPEN RESOURCE

Strengthening Science Safety Practice in Primary Schools

A Reference Guide for Science Leaders

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Final version

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Overview

This document contains...

This document provides practical guidance to support science leaders and school staff in strengthening science safety practice and enabling high-quality, safe practical science. It complements the accompanying staff training presentation and includes key considerations, reflection activities and strategies to help develop a consistent and positive safety culture in primary science.

Points to consider when using this resource

Use this resource alongside current school policies, local authority guidance and relevant CLEAPSS documentation. The content should be adapted to reflect your school's context and can support subject leadership, staff discussions, action planning and ongoing review of science safety procedures.

Why Science Safety Matters

⚠ Key Messages

- Safe practical science enables pupils to develop scientific knowledge, enquiry skills and confidence.
- Effective safety practice supports pupil wellbeing while ensuring practical science remains an integral part of the curriculum.
- Schools have legal and professional responsibilities for health and safety.
- Effective safety practice builds staff confidence.

✓ Reflection Activity

Ask staff:



What does effective science safety look like in our school?

💬 Discussion Points

- strengths
- areas for development
- consistency across classes
- biggest safety challenge

Safety Responsibilities in Practice

What does effective science leadership in safety look like?

- ensuring staff can access current school, local authority and CLEAPSS guidance and have active CLEAPSS login details where appropriate.
- monitoring practical science provision
- supporting colleagues with planning safe and effective practical science activities
- maintaining equipment and resources
- promoting regular review of safety procedures
- acting as a point of contact for science safety queries

△ Roles and Responsibilities

Teachers	Science Leaders	Senior Leaders
• plan safe activities • follow school procedures • supervise effectively • model safe behaviour	• monitor provision • support colleagues • maintain safety guidance	• ensure suitable policies • provide training • support compliance

✓ Audit Activity

Question	Yes	Partly	No	Comments/ notes
Staff know where safety guidance is located				
Risk assessments are used appropriately				
Practical activities are planned safely				
Staff understand reporting procedures				

Common Risks and How to Manage Them

⚠ Common Primary Science Hazards

Equipment	Materials	Activities
• broken apparatus • sharp objects • trip hazards	• irritants • allergens • living organisms	• heating • investigations outdoors • inappropriate pupil behaviour

👥 Discussion Activity

Ask:

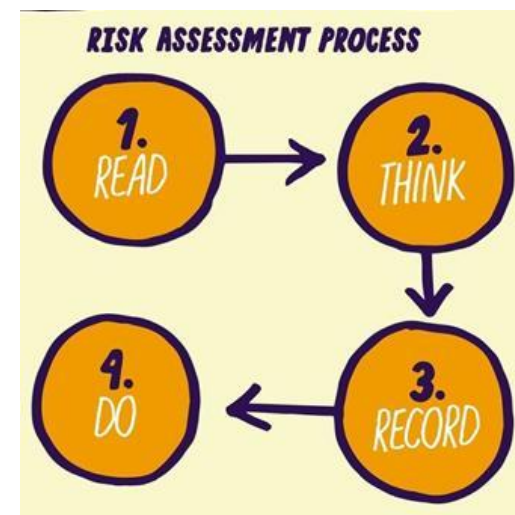
What could go wrong?
How likely is it?
What control measures are needed?

Agreed Risk Assessment Procedures

△ Schools should have a clear and proportionate approach to evidencing risk assessment for practical science activities.

Examples include:

- recording relevant CLEAPSS guidance references on planning documents
- including the CLEAPSS document code alongside practical activities
- using screenshots of the yellow risk assessment boxes from CLEAPSS guidance documents
- printing and annotating CLEAPSS guidance to highlight key controls and adaptations
- retaining evidence of safety considerations alongside lesson planning



How do staff in our school demonstrate that safety considerations have informed planning?

Embedding Safety in Teaching

△ Model Safe Behaviour

Model Safe Behaviour	Develop Pupil Ownership	Use Visual Reminders
Demonstrate: • correct equipment use • appropriate PPE • expectations for behaviour	Ideas include: • Safety Champions • equipment monitors • safety checklists	Consider: • posters • symbols • practical science rules



Curriculum Links

Working Scientifically

Safety supports:

- planning investigations
- making observations
- evaluating procedures

PSHE

Links include:

- responsibility
- decision making
- risk awareness

Practical Ideas for the Classroom

- use safety reminders before every practical activity
- encourage pupils to identify hazards
- include safety questions during plenaries
- appoint Science Safety Champions
- display relevant CLEAPSS hazard symbols
- celebrate good safety behaviours

Scenario-Based Challenge

The Curious Case of the Pond Water

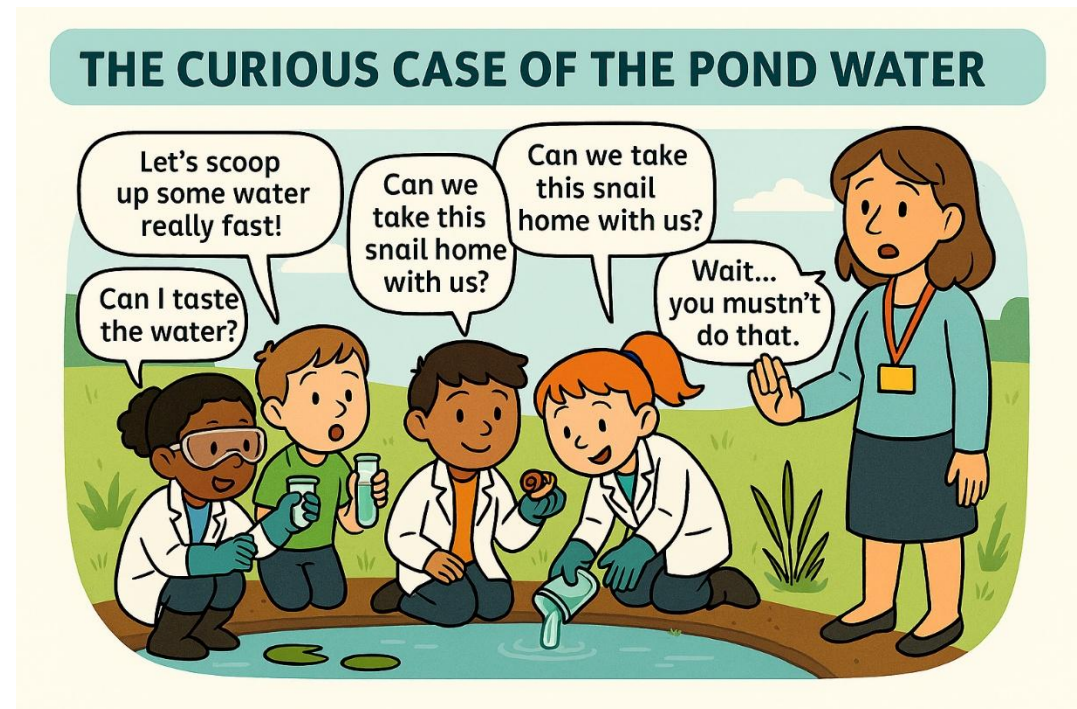
A class is collecting pond samples to investigate water quality.

Questions for Discussion

- What hazards can you identify?
- What control measures are needed?
- How should pupils handle samples?
- What ethical considerations are involved?

Extension

How could this activity be adapted for different age groups?



Action Planning

Personal Reflection

What is one action you will take to strengthen science safety across your school?

My Commitment
Timescale

Building a Positive Safety Culture

A strong safety culture involves:

- consistent expectations
- staff confidence
- pupil understanding
- ongoing professional dialogue
- use of CLEAPSS guidance

Indicators of a Strong Safety Culture

- ✓ Staff know where guidance is located
- ✓ Practical science is encouraged, not avoided
- ✓ Risk assessments inform planning
- ✓ Pupils can explain how to work safely
- ✓ Incidents and near misses are used to improve practice
- ✓ Staff discuss safety openly and regularly

A strong safety culture does not reduce opportunities for practical work. Instead, it enables staff to deliver safe practical science with confidence and consistency.

Further Support

- CLEAPSS Primary Science website
- Safety in Science at Key Stages 1 and 2 (2025)
- school health and safety policy
- accident and incident reporting procedures
- local authority science support

Science leaders should regularly review local authority guidance, CLEAPSS updates and school procedures to ensure science safety arrangements remain current and effective.

Science Team

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