



HALL GREEN SCHOOL

SCIENCE DEPARTMENT HEALTH & SAFETY POLICY

Adopted:	March 2021
Next Review:	March 2024
Governing Committee:	Full Governing Body
Responsibility:	Assistant Headteacher – Health & Safety Head of Science

1. The role of this policy

This *Science Department Health and Safety Policy* should be read in conjunction with the employer's general Health and Safety Policy and the detailed arrangements for implementing that policy in this school. The purpose of this document is to record the arrangements made in the science department to implement the policy (in accordance with the *Code of Practice or Guidance* issued by the employer).

This document is maintained by the Science department. It is copied to all new members of staff, i.e. Science teachers, technicians, trainees, etc. working in the department. Staff are expected to sign the list kept in Room 24 by the Head of Science to show that they have received a copy. A reference copy, together with various Appendices, is kept in the Health and Safety Officers office available for consultation by staff and for inspection by visiting HSE inspectors or a representative of the employer.

This document recognises the right of any or every trade union in the workplace to elect health & safety representatives for its members and its right to require a health and safety committee to be set up in the school. The science department will cooperate with any union health & safety representative to promote health, safety and welfare and will address any matters raised by or through such a representative in a manner appropriate to the level of risk.

2. General aims

Science teaching has an excellent health and safety record and this department is keen to promote practical work as an essential component of good science teaching. It is determined that spurious concerns about health and safety should not be allowed to inhibit good teaching. However, it is the duty of all members of the science staff, staff who work in the department occasionally, technicians, teaching assistants and other support staff (e.g. special needs and bilingual staff) and trainees:

- to take reasonable care for the health and safety of themselves and other persons who may be affected by their acts or omissions during work;
- to be familiar with this health and safety policy by periodic reference to it;
- to look out for any revisions;
- to follow its provisions, and
- to cooperate with other members of staff in promoting health and safety.

3. Health and safety roles

3.1 Duties, functions and tasks

The Headteacher of Hall Green School, has the ultimate duty to ensure the health and safety of employees and others on the site (and hence in this department).

The task of overseeing health and safety on this site has been delegated by the employer to the Headteacher. Within the science department, this task is further delegated to the Head of Science who has the particular function of maintaining this policy document. See section 10 for the names of the staff members currently with specific health and safety functions.

3.2 Communications

Communication of health and safety information is of the greatest importance and is the task of the Head of Science with the assistance of subject specialists. In this department, all staff are issued with this policy. A reference copy is kept in the science Office and Room 21 as well as with the AHT responsible for Health & Safety.

Any new instructions, restrictions or rescinded (lifted) restrictions made by the employer are communicated to all staff in writing as well as being attached to the reference copy of this policy.

3.3 Monitoring and checking

The employer expects the Science department to monitor the implementation of this policy and the employer's Code of Practice for Science. Records of monitoring are kept by the Head of Science.

Checklists on resources and facilities for daily use by technicians are customised from those suggested in CLEAPSS Guide L248 Running a Prep Room. The timetable for such checks is kept with the reference copy of this policy. Records of the checks are kept by the Head of Science.

4. Training

The person with the task of seeing that training is provided is the Head of Science.

Generally, this department follows guidance in the CLEAPSS documents DL238, Health and Safety Induction and Training of Science Teachers and DL234, Induction and Training of Science Technicians, suitably customised, to identify the training needs of staff.

Particular training functions are delegated as follows (to be read in conjunction with section 10).

Health and safety aspects of the work of newly qualified teachers and other new teachers	Head of Science
Health and safety of trainees on teaching practice	Head of Science
Induction of newly-appointed technicians	Senior Technician
Immediate remedial measures and other emergency procedures (spills, bench fires, etc.)	Senior Technician
Training in the use of specialist equipment, chemicals or procedures (in line with CLEAPSS guides L238 and L234, as customised)	Head of Science
Health & safety training of non-science support staff	Head of Science Health and Safety Officer
[Health and safety of non-science teachers using laboratories]	Head of Science
Manual handling for all staff using laboratories	Head of Science Health and Safety Officer

Healthy and safe procedures for laboratory cleaners	Head of Science
Regular update training (covering new or changed regulations, new equipment etc.)	Head of Science

Records of the training received by members of the science staff are kept in the Room 21 Safety Check File.

5. Risk assessments

Every employer is required under various regulations to supply employees with a risk assessment before any hazardous activity takes place. (Common hazardous activities carried out in science departments are listed in the publications below). Because it is impracticable for the employer to write risk assessments for each of the many activities in school science, Hall Green School follows the recommendation of the Health and Safety Commission to adopt published 'model' or 'general' risk assessments which school science departments adapt to their local circumstances.

Hall Green School has endorsed the use of the following publications as sources of model (general) risk assessments.

CLEAPSS publications generally
 CLEAPSS, *Hazcards*, current edition
 CLEAPSS, *Laboratory Handbook*, current edition
 CLEAPSS, *Recipe Book*, current edition
 CLEAPSS, L93, *Managing Ionising Radiations and Radioactive Substances*
 ASE, *Safeguards in the School Laboratory*, ASE, 2006 (11th Edition), ISBN 978-0-86357-408-5

Whenever a new course is adopted or developed, all activities (including preparation and clearing-up work) are checked against the model risk assessments and significant findings are incorporated into texts in daily use i.e. the schemes of work. See section 10 for the member of staff with the task of overseeing this process.

If a model risk assessment for a particular operation involving hazards cannot be found in these texts, a special risk assessment is obtained, following the employer's instructions, from CLEAPSS. In order to assess the risks adequately, the following information is collected.

- Details of the proposed activity.
- The age and ability of the persons likely to do it.
- Details of the room to be used, i.e. size, availability of services and whether or not the ventilation rate is good or poor.
- Any substance(s) possibly hazardous to health.
- The quantities of substances hazardous to health likely to be used, including the concentrations of any solutions.
- Class size.
- Any other relevant details, e.g. high voltages, heavy masses, etc.

Since the scheme of work has been checked against the model risk assessments, staff should deviate from it only if their proposed activities have been also agreed with the Head of Science.

We encourage the development of new practical activities (including on open evenings, at Science clubs, etc.) but these should be undertaken only after a prior check against model risk assessments and/or a special risk assessment has been obtained.

Where an activity must be restricted to those with special training, that restriction is included in a note on the text.

For technicians' activities in and around the prep room, the assessments in CLEAPSS publication GL25, *Model Risk Assessments for Laboratory Technician Activities* have been customised and form an Appendix to this document, kept with the reference set in Room 21.

6. Equipment and resources

6.1 Fume cupboards

The *COSHH Regulations* require the regular testing of fume cupboards (maximum interval 14 months) with a quick check before use. Testing normally takes place each year in June. The Head of Science has the function of seeing that this happens. The Head of Science has arranged a contract LabCare who will be allowed access to carry out the tests. The records of the tests are available for staff reference and for inspection by the employer's representative or an HSE Inspector in the Safety Check File kept the Senior Technician in Room 21.

All users have been trained to carry out a quick check that a fume cupboard is working before use.

Smoking cigarettes is not permitted in the school. However, **demonstrations of a 'smoking machine' are permitted in fume cupboards in designated laboratories.** The following laboratories fitted with efficient fume cupboards, or in which an efficient mobile fume cupboard could be used, are so designated: room 20, 21 and D1.

6.2 Electrical testing

To meet the requirements of the *Electricity at Work Regulations*, this employer requires portable electrical equipment to be inspected and tested regularly. The Head of Science has the function of seeing that this happens within the science department. Testing normally takes place each year by outside contractors liaising with the Building Services Team.

This employer has arranged a contract with AGG who must be allowed access to carry out the work. This work will be carried out by the trained technician using a proper earth-bonding and insulation test set, following procedures in the CLEAPSS *Laboratory Handbook* Section 6. Completed schedules are kept in a ring binder which is maintained by the Building Services Team and are available for staff reference and for inspection by the employer's representative or an HSE Inspector.

See section 10 for the names of the staff members currently with these functions.

All users have been trained to carry out a quick visual inspection before using mains-powered equipment.

6.3 Radioactive sources

The employer's *Radiation Protection Adviser* (RPA), the *Radiation Protection Officer* (RPO) and the *Teacher in Charge of Radioactive Sources (Radiation Protection Supervisor (Schools), RPS (Schools))* are identified in section 10. Liaison with the RPA is normally via the RPO, not direct.

This school follows the guidance in CLEAPSS Guide L93 *Managing Ionising Radiations and Radioactive Sources* 2016 edition.

The Standard Operating Procedures for the use of ionising radiations have been adapted from the CLEAPSS model in consultation with the RPO and it is a function of the Teacher in Charge to see that they are adhered to. Staff using ionising radiations have been issued with their own copies, as a part of their training, and a reference set is filed centrally with this policy in Room 21.

The *Radioactive Sources History* (i.e. authority to purchase, record of delivery, details of events in the life of the source and eventual certificate showing method of disposal) is kept in Room 21.

The *Use Log* (showing the times that any sources are removed from and returned to their store) is kept Room 20a.

The Monitoring Record of tests for leakage of radioactive sources and contamination by radium sources is kept in the Safety Check File in Room 21. Testing normally takes place each year in July.

It is the function of the RPS to ensure these records are kept up to date.

6.4 Pressure vessels

Autoclaves, pressure cookers and model steam engines need periodic inspection under the *Pressure Systems Safety Regulations*. Inspection normally takes place each year in October.

In accordance with this employer's Code of Practice, the appropriate written scheme of examination is selected from CLEAPSS Guide L214b *Examining Autoclaves, Pressure Cookers, Model Steam Engines: Written Scheme of Examination*, certified by the Head of Science and used by the competent person (see section 10) to carry out the examination. The examination is carried out by the inspector employed by the contractor who is appointed by the senior technician. Records of examinations are kept in the Safety Check File in Room 21.

6.5 Animals, plants and microorganisms in schools

The hazards associated with the use of animals, plants and microorganisms are discussed in the texts listed in section 5 which also give advice on controlling them. This advice will be followed and any queries referred to the subject specialist for biology (see section 10).

6.6 Equipment safety

All staff selecting equipment for purchase will check that it is safe and suitable for the intended purpose (to comply with the *Provision and Use of Work Equipment Regulations*). Equipment listed by specialist educational equipment suppliers is taken to meet these *Regulations* but all other equipment, especially gifts, is treated with caution and carefully assessed. Advice on safety and suitability is sought from CLEAPSS through publications and directly.

Equipment restricted to those users who have received special training (see section 4, *Training*) is labelled accordingly/given warnings in texts in daily use.

Any user who discovers a hazardous defect in an item of equipment must report it to the Senior Technician and Head of Department.

6.7 Personal Protective Equipment

The employer accepts the duty to provide eye protection, gloves and laboratory coats for employees where the risk assessment requires them (Personal Protective Equipment at Work Regulations).

Prescription safety spectacles are to be ordered from any optician and the employer will meet the extra cost of the safety features. Laboratory coats are supplied by the employer and laundered by the school.

The employer expects eye protection to be available for students and visitors. Safety spectacles are provided for general use, with a set of goggles or face shields used whenever the risk assessment requires them. Goggles or face shields to chemical-splash standard are worn whenever there is a risk to the eyes.

The condition of the eye protection is checked regularly (see section 3.3, *Monitoring and checking*).

6.8 Chemicals

Offers of gifts of chemicals are viewed with extreme caution to ensure that stocks are not increased unduly and that no unwanted chemicals are included.

The task of arranging safe storage of chemicals (and, where necessary, disposal), including highly flammable liquids, in accordance with the requirements of the *Dangerous Substances and Explosive Atmospheres Regulations (DSEAR)* is given to the Senior Technician who will ensure that chemicals are stored securely, the risks of fire, explosion and spillage are minimised, labels are readable and that a spill kit is available and properly replenished.

See section 10 for the name of the staff member currently with this function.

Hazardous activities involving chemicals restricted to those who have received special training (see section 4, *Training*) are identified in the texts in daily use as part of the risk assessment (see section 5, *Risk assessments*).

6.9 Waste disposal

Waste chemicals and equipment are disposed of in an environmentally-responsible manner in accordance with relevant legislation. Chemical disposal follows guidance on CLEAPSS *Hazcards* (2016 edition or later). Other disposal follows relevant CLEAPSS guidance.

7. Activities and procedures

7.1 Outdoor activities

When planning any field trips etc. staff consult the employer's code of practice/CLEAPSS Laboratory Handbook.

7.2 Manual handling and working at height

All regular operations involving lifting or carrying equipment, pushing trolleys, etc. will be assessed to see if any may give rise to risks of injury (*Manual Handling Operations Regulations*) by the Head of Science/Senior Technician and Health and Safety Officer.

As it is sometimes necessary to carry chemicals or equipment through heavy fire doors, we have assessed risks under both the *Manual Handling Operations Regulations* and under the *Regulatory Reform (Fire Safety) Order* and where possible, will use two people, one to hold open the door, the other to carry the items.

Occasional (i.e. one-off) manual-handling operations will be assessed by the staff member(s) before attempting them. Problems will be reported to the Head of Science and Senior Technician.

See section 10 for the names of the staff members currently with these functions.

Following risk assessments under the *Work at Height Regulations*, when it is impossible to avoid storage or display above head height, glass or other fragile items are never stored above head height and only light-weight and rarely-used items are stored there. When displaying items at high level or fetching or replacing items stored at high level, step ladders or kick stools are used; staff never climb onto laboratory stools or benches.

7.3 Security

Access to laboratories and preparation rooms will be controlled to comply with the *Management of Health & Safety at Work Regulations*. All preparation rooms/store rooms are to be kept locked at all times except when in use. It is the task of the staff member leaving such a room to see that the room is empty and that the door is locked. All laboratories which are left open are cleared of all hazards, including shutting-off all services when supervision by a suitably-trained teacher comes to an end. No class is allowed to work in a laboratory without adequate supervision.

Any non-science staff who have to supervise any class in a laboratory will receive brief training in laboratory rules. The guidance for such staff is kept in Room 21.

7.4 Concern for others

All science areas are made safe for cleaners or contractors to work in before these persons are allowed to proceed.

8. Emergency procedures

8.1 Fire

Science staff will follow the normal school procedures in case of major fires. All science staff are trained to deal with any small fires that can be extinguished using the sand buckets, eg small bench fires.

Advice on fire-fighting is given in sections 4 of the *CLEAPSS Laboratory Handbook*.

8.2 Spills

Trivial spills are dealt with using damp cloths or paper towels. Spills of any amount which do not give rise to significant quantities of toxic or highly-flammable fumes ('minor spills') are dealt with by teachers or technical staff using a 'spill kit' prepared for this purpose (in accordance with section 7 of the *CLEAPSS Laboratory Handbook*). Spill kits are kept in room 21 and D1 prep room.

Major spills are those involving the escape of toxic gases and vapours or of flammable gases and vapours in significant concentrations. (Small amounts can be 'major spills' if spilt in small rooms). Staff are trained in the appropriate procedures which may involve calling the Fire and Rescue Service. See section 4 for the name of the staff member currently with this function.

8.3 Injury

Science staff will follow the normal school procedures in cases that require first aid. Science staff are trained to carry out immediate remedial measures (e.g. eye rinsing), while waiting for first aiders, after accidents which occur in science. See the most recent edition of the *CLEAPSS Laboratory Handbook* section 5.

See section 4 for the name of the person responsible for coordinating training in immediate remedial measures.

8.4 Reporting procedures

Injuries or suspected injuries to a pupil or a member of staff, dangerous occurrences and instances of damage or theft will be reported using the standard school procedures. Following an injury, so that the Regulations (*RIDDOR*) can be complied with, the accident must be reported to Head of Science and the Accident Report Form must be returned to the Health and Safety Officer as quickly as possible.

Dangerous situations and incidents which might have resulted in injury ('near-misses') should be reported to the head of department and Health and Safety Officer in writing and recorded in the book kept in the PE office. These will be analysed and discussed at departmental meetings.

9. Laboratory rules for students

The rules for students during science lessons are as follows.

Laboratory Rules

The biggest danger in the lab is **YOU!** You are at risk when you don't understand the hazards or you are careless, or both. The person most likely to suffer from your mistakes is **YOU!** Report any accident or breakage to your teacher.

1. Only enter a lab when told to do so by a teacher. Never rush about or throw things in the lab. Keep your bench and floor area clear, with bags and coats well out of the way.
2. Follow instructions precisely; check bottle labels carefully and keep tops on bottles except when pouring liquids from them; only touch or use equipment and materials when told to do so by a teacher; never remove anything from the lab without permission.
3. Wear eye protection when told to do so and keep it on from the very start until all practical work is finished and cleared away.
4. When using naked flames (e.g. Bunsen or spirit burners or candles), make sure that ties, hair, baggy clothing etc. are tied back or tucked away.
5. Always stand up when working with hazardous substances or when heating things so you can quickly move out of the way if you need to.
6. Never taste anything or put anything in your mouth in the laboratory. If you get something in your mouth, spit it out at once and wash your mouth out with lots of water. Tell your teacher.
7. Always wash your hands carefully after handling chemicals, microbes or animal and plant material.
8. If you are burnt or a chemical splashes on your skin, wash the affected part at once with lots of water. Tell your teacher.
9. Never put waste solids in the sink. Put them in the bin unless your teacher instructs you otherwise.
10. Wipe up all small spills and report bigger ones to your teacher.

10. Staff roles and Emergency contacts

Staff roles and/or emergency contacts updated on: March 2021	
Advice on health & safety and all aspects of practical science generally	CLEAPSS Helpline 01895 251496. Email: science@cleapss.org.uk
Local Authority Science Adviser	John Booth 07766 922789
Overseeing Health and Safety in this school	Shelley Paxton

Overseeing Health and Safety in the Science Dept	Sam Clarke 07906274206
Science department Health & Safety Officer	Sam Clarke
Senior technician	Sam Jones
Various training functions	See table in section 4
Subject specialist for consultation over Health & Safety matters in Biology	Sam Clarke
Subject specialist for consultation over Health & Safety matters in Chemistry	Azmina Bolya
Subject specialist for consultation over Health & Safety matters in Physics	Andrew Simson
Overseeing the checking of activities against the model risk assessments and recording significant findings	Sam Clarke
The person trained to test fume cupboards	Person supplied from LabCare
The person trained to do electrical inspection and testing	Person supplied from AGG – 01623 810400
The person trained to do gas testing	Person supplied from Lords Combustion 0121 5441345
The teacher in charge of radioactive sources, RPS	Sam Clarke
The employer's Radiation Protection Adviser, RPA	Graham Hart (RPA) 07438 654546
The local authority's Radiation Protection Officer, RPO	John Booth (RPO) 07766 922789
The person considered competent to examine pressure vessels	Harding Scientific Instruments Ltd 01684 575974
The person in charge of chemical storage and disposal	Chemco 07739415061

Emergency advice	CLEAPSS <i>Helpline</i> 01895 251496
<i>Serious accident:</i> Ambulance service	999
<i>Serious accident:</i> School first-aiders	Kay Davis (internal tel) 228
<i>Serious accident:</i> School health & safety officer	Shelley Paxton (internal tel) 257
<i>Major chemical spill:</i> Fire & Rescue Service Chemical Incident Unit	0121 3807404
<i>Gas leak:</i> Gas company	British Gas 0800111999
<i>Radiation accident:</i> Hospital able to deal with radiation incidents	Queen Elizabeth Hospital 0121 6272000
<i>Radiation accident:</i> Local authority's RPO	John Booth 07766 922789
<i>Radiation accident:</i> Employer's RPA	Graham Hart 07438 654546
<i>Animal welfare:</i> Veterinary practitioner	Fivelands Veterinary (Hall Green) 0121 777 8145

11. Covid Addendum

Hall Green School is committed to ensuring the health and welfare of staff, pupils and visitors to our establishments during the current Coronavirus Pandemic. The Science department will ensure robust protocols are implemented to minimise the risk of infection by ensuring;

- Staff working within the department are made aware of the specific infection control procedures and contents of associated risk assessments in relation to coronavirus. They will receive the necessary instruction and training where necessary to help minimise the spread of infection. This should include all temporary members of staff on cover.
- Where vulnerable persons are identified, or pupils are in periods of self-isolation the relevant support will be provided, eg remote learning.
- The department will conduct a risk assessment of all activities being taught and implement control measures to minimise the risk of infection.
- Pupils will be made aware of the school's infection control procedures in relation to coronavirus via school staff and specifically made aware of the department's control measures with regular reminders and updates.