

## **SCIENCE HEALTH & SAFETY POLICY**

### **PRIMARY PERSON RESPONSIBLE FOR IMPLEMENTATION AND MONITORING OF THIS POLICY**

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**Model Health & Safety Policy**  
**Science Department**

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## **1. Introduction**

*Under the Health & Safety at Work etc Act, it is the duty of an employer to have an up-to-date written statement of health and safety policy, and the Management of Health & Safety at Work Regulations require the arrangements for carrying out that policy to be included, all of which must be brought to the attention of employees. The general policy statement of the employer is often complemented by a policy statement issued for each school under that employer (if more than one) and by policy statements from those departments, such as science, with particular risks. This document is intended to help a school science department construct the third component of such a three-part arrangement. In the case of foundation and voluntary-aided schools, academies and other independent schools and incorporated colleges, it will only be a two-part arrangement because the governing body, proprietor or corporation is the employer. However, a departmental policy should be endorsed by the employer(s) of teaching and technical staff so that it forms part of the employer's health and safety policy. Thus a copy of the policy should be lodged in the school office and, where relevant, another passed to the employer.*

## 2. Summary guidelines for staff

### *All teachers, technicians and support staff*

1. Teachers and technicians have a general duty to take reasonable care for the health and safety of themselves, of other members of staff and of students. They have specific duties: to be familiar with this health and safety policy, its updates, the texts to which it refers and any Appendices. They must cooperate with the employer's instructions, observe the requirements of this policy and fulfil any special responsibilities it gives them. They must cooperate with colleagues in their specific health & safety duties. They have a duty to report to local management any failure of equipment that has a health & safety function.
2. Staff practice must set a good example to students and be consistent with student laboratory rules, e.g., over the wearing of eye protection.
3. Staff must be familiar with emergency drills and the location within each science room of: the escape route; fire-fighting equipment; eye wash station; the main electricity switch and the nearest spill kit.
4. Laboratories must be left safe. Special arrangements must be made for equipment which has to be left running overnight and hazardous equipment which has to be left out. In general, all mains-operated apparatus switched off.
5. Eating, drinking and the application of cosmetics should not take place in laboratories, storage areas or preparation rooms unless an area in which it is safe to do so has been created. Students should not be allowed to drink from water bottles.
6. When staff are alone in the science department, nothing should be done which could lead to an accident requiring remedial measures. A teacher or technician must assess risks very carefully before conducting any practical operation in such circumstances.
7. In general, students must not be left unsupervised in a laboratory. Staff needing to leave a class briefly must assess the risks of doing so, perhaps arranging for temporary supervision by a neighbouring member of staff. Special arrangements may be needed for senior students doing project work, depending on the hazards involved, eg, an experienced member of staff in an adjacent room.

## Teachers

1. At the beginning of each school year, teachers must make sure that their students are aware of the student laboratory rules and issue them if necessary.
2. Teachers must enforce the student laboratory rules, reminding students of them often enough for them to be familiar. With new students, time should be spent explaining the rules, with appropriate demonstrations.
3. Lesson preparation should be adequate and include checking on risk assessments and, where necessary, the health & safety precautions required. Requisitions must not be handed in at the last minute; technicians must be given adequate time to prepare work safely. Time should be allowed for consulting more-senior colleagues where there is any doubt and to try out experiments, particularly those involving significant hazards. Teachers must only deviate from the scheme of work (for which the activities have been checked against model risk assessments), after making a further risk assessment, checked with a subject specialist, possibly obtaining a special risk assessment from CLEAPSS. Teachers should explain precautions to students as part of their health & safety education; using the CLEAPSS *Student Safety Sheets*, where appropriate.
4. Open-ended investigations must be organised to allow the teacher to assess any risks and identify precautions before any hazards are met or practical work begins.
5. If, because of indiscipline, health and safety cannot be maintained during certain practical work, the work should be modified or abandoned. This decision should be reported to the head of subject.
6. A teacher is responsible for the health and safety of any of his/her classes taken by a trainee teacher. If the normal class teacher is absent, another science teacher must be given this responsibility by the Head of Department.
7. Teachers in charge of courses are responsible for ensuring that technicians are familiar with the appropriate precautions needed to control any hazards which might be encountered in preparing equipment for their lessons and in clearing the equipment away. Class teachers may need to remind technicians of such warnings.

### **3. The role of this policy**

This *Science Department Health & Safety Policy* should be read in conjunction with the employer's general Health & 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., teachers, technicians, trainees, etc. working in the department. Staff are expected to sign the list kept within the Fire Safety and risk assessment manual to show that they have received a copy. A reference copy, together with various Appendices, is kept in within the fire safety and risk assessment manual 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 & 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.

### **4. General aims**

Science teaching has an excellent health & 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, i.e., teachers, staff who work in the department occasionally, technicians, teaching assistants and other support 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 & 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.

## **5. Health and safety roles**

### **5.1 Duties, functions and tasks**

The employer, Albemarle independent college, 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 Chris Mason. Within the science department, this task is further delegated to the Technician (James Bainbridge) who has the particular function of maintaining this policy document. See section 10 for the names of the staff members currently with these functions.

This policy is reviewed annually during the Summer Holiday.

### **5.2 Communications**

It is acknowledged that communication of health & safety information is of the greatest importance and is the task of the Technician

In this department, all staff are issued with this policy. A reference copy is kept in Laboratory 2 together with any Appendices within the Fire Safety and risk assessment manual.

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

### **5.3 Monitoring and checking**

The employer expects the science department to monitor the implementation of this policy. Records of monitoring are kept by Chris Mason and the technician

Checklists on resources and facilities for [weekly] / [monthly] / [annual] and the timetable for such checks is kept with the reference copy of this policy. Records of the checks are kept by the in the *health and safety manual within the science department*.

## 6. Training policy

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

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

Health & safety aspects of the work of newly-qualified teachers and other new teachers	James Patterson
Health and safety of trainees on teaching practice	James Patterson
Induction of newly-appointed technicians	James Bainbridge
Immediate remedial measures and other emergency procedures (spills, bench fires, etc)	James Bainbridge
Training in the use of specialist equipment, chemicals or procedures (in line with CLEAPSS guides L238 and L234, as customised)	James Bainbridge
Health & safety training of non-science support staff	James Bainbridge
[Health and safety of non-science teachers using laboratories]	James Patterson
Manual handling for all staff using laboratories	James Bainbridge
Healthy and safe procedures for laboratory cleaners	James Bainbridge
Regular update training (covering new or changed regulations, new equipment etc)	James Bainbridge



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

## 7. 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, this employer 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.

[The employer has instructed that the following publications are to be used as sources of model (general) risk assessments.] / [The employer has endorsed the use of the following publications as sources of model (general) risk assessments.]

[CLEAPSS, *Hazcards*, current edition] – Kept on Shelf unit 11

[CLEAPSS, *Laboratory Handbook*, current edition] – Kept on Shelf unit 11

[CLEAPSS, *Recipe Cards*, current edition] –Kept on shelf unit 11

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.

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 the Technician. 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, eg, high voltages, heavy masses, etc.

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

For technicians' activities check the model risk assessment for laboratory technicians in the appendix for the model risk assessment and kept with the reference set .

## **8 Equipment and resources**

### **8.1 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 the Summer Holiday. The Health and safety coordinator has the function of seeing that this happens. The regular tests will be carried out by the trained technician using a suitable air-flow meter. The records of the tests are available for staff reference and for inspection by the employer's representative or an HSE Inspector kept by Chris Mason.

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

No smoking of cigarettes is 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.

### **8.2 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 Health and Safety Coordinator has the function of seeing that this happens within the science department. Testing normally takes place each year

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

### **8.3 Equipment safety**

All staff selecting equipment for purchase will check that it is safe and suitable for the intended purpose. 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.

### **8.4 Personal protective equipment**

The employer accepts the duty to provide eye protection, gloves and laboratory coats for employees where the risk assessment requires them. Laboratory coats are supplied by the employer

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*).

### **8.5 Chemicals**

Offers of gifts of chemicals are not accepted.

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.

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

### **8.6 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*

## **9 Activities and procedures**

### **9.1 Outdoor activities**

*When planning any field trips etc., staff consult one or more of the following the employer's code of practice / CLEAPSS Laboratory Handbook / DfES Health and safety of pupils on educational visits and supplementary guidance*

### **9.2 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 by Chris Mason

Occasional (i.e., one-off) manual-handling operations will be assessed by the staff member(s) before attempting them. Problems will be reported to Chris Mason

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 rarely 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.

### **9.3 Security**

Access to laboratories and preparation rooms will be controlled to comply with the *Management of Health & Safety at Work Regulations*. All laboratories which are left open are cleared of all hazards, including shutting-off all services when supervision by a qualified science teacher comes to an end. No class is allowed to be in a laboratory without adequate supervision.

### **9.4 Concern for others**

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

## **10. Emergency procedures**

### **10.1 Fire**

Science staff will follow the normal school procedures in case of major fires. Science Technician and all science staff are trained to deal with minor bench fires, clothing fires and hair fires. This training is supported by regular drills arranged by the Health and safety officer and lead fire marshal.

### **10.2 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. Spill kits are kept above first aid unit

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. This training is supported by regular drills arranged by the Health and safety officer and lead fire marshal

### **10.3 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 the accidents which occur in science.

### **10.4 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 report form must be returned to Chris Mason and Senior Technician as quickly as possible.

Dangerous situations and incidents which might have resulted in injury ('near-misses') should be recorded in the book kept in LAB 2. These will be analysed and discussed at departmental meetings.

## 11. 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.

12.

## Staff roles and Emergency contacts

### Staff role

Staff roles and/or emergency contacts updated on: ...17/12/14	
Advice on health & safety and all aspects of practical science generally	CLEAPSS <b>HELPLINE</b> , 01895 251496
Overseeing health and safety [in this school] / [on this site]	Chris Mason
Overseeing health and safety in the science department	James Bainbridge
Senior technician	James Bainbridge
Overseeing the checking of activities against the model risk assessments and recording significant findings	James Bainbridge
[The person trained to test fume cupboards]	External Company (AJT joinery)
[The person trained to do electrical inspection and testing]	External Company
[The teacher in charge of radioactive sources (Radiation Protection Supervisor, RPS)]	No Sources in College
[The person in charge of chemical storage and disposal]	James Bainbridge ( Storage) Chris Mason (Disposal)
[The person in charge of manual handling]	Chris Mason

### Emergency contacts

<i>Emergency advice</i>	CLEAPSS <b>HELPLINE</b> 01895 251496
<i>Serious accident: Ambulance service</i>	999
<i>Serious accident: School first-aiders</i>	Chris Mason , James Bainbridge,
<i>Serious accident: School health &amp; safety officer</i>	Chris Mason