SCIENCE DEPARTMENT HEALTH & SAFETY POLICY

General aims

It is the duty of all members of the science staff, i.e., teachers/lecturers, supply staff who work in the department occasionally, technicians and other support staff (e.g., special needs and language support staff)

- 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 member of staff in promoting health and safety.

Duties and Functions or Tasks

The employer has the ultimate duty to ensure the health and safety of employees and others on the site.

The task of overseeing health and safety on this site has been delegated by the employer to the Design and Technology Co-ordinator, the School Support Manager and Head of School.

Within the science department, this task is further delegated to Miss Savory (the Science coordinator) who has the particular function of maintaining this policy document.

(The next major review of this policy will take place in Spring 2016. This policy is reviewed annually during the Spring Term.)

Risk Assessments

Any potentially hazardous activity performed during teaching in the science department will be subject to a risk assessment. This duty will be carried out by the teacher preparing the lesson, with reference to the health and safety documents (see appendix.) 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., length, width and height, availability of services and whether or not the ventilation rate is good or poor;

Any substance(s) possibly hazardous to health with concentrations of solutions;

The quantities of substances hazardous to health likely to be used;

Class size, and any other relevant details, eg, high voltages, heavy masses etc.

Since the scheme of work/medium term plans have been checked against the model risk assessments, cover staff should not deviate from it, unless their proposed activities have been agreed with the Science coordinator.)

**Equipment and Resources**

**Electrical testing**

Portable electrical testing is carried out by an authentic electricity company annually.

**Radioactive sources**

The science department does not use radioactive sources.

**Pressure vessels**

The science department does not use pressure vessels.

**Animals, plants and microorganisms in schools**

Guinea pigs are studied during animal care. Hands are washed after handling. Invertebrates are used in leaf litter study. Pupils are instructed to wash hands thoroughly after contact. Plants are studied, but present no significant risk to health.

Micro-organisms are grown during the year 8 topic microbes. CLEAPPSS advice is followed.

**Personal protective equipment**

Goggles or face shields to chemical splash standard are worn whenever there is a risk to the eyes. Laboratory coats and protective gloves are available for staff and pupils.

The condition of the eye protection is checked regularly (every week)
Chemicals

The task of arranging safe storage of chemicals, including highly-inflammable liquids, is given to the Science coordinator who will see that labels are readable and that a spill kit is to hand and properly replenished.

Manual handling

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 1992) by the technician and school health and safety coordinator. 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 Safety coordinator.

Security

Access to laboratories and preparation rooms will be controlled to comply with the Management of Health & Safety at Work Regulations 1992. The Science and Design Technology 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 and that the room is hazard free, and the gas supply is shut off after use. No class is allowed to be in a laboratory without supervision by a teacher, familiar with the departmental safety procedures. Any non-science staff who are to supervise any class in a laboratory will receive brief training in laboratory rules.

Concern for others

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

Outdoor activities

When planning any field trips, etc; staff consult one or more of the following (the employer’s code of practice) / (the CLEAPSS Laboratory Handbook) / Managing Out-of-classrooms Activities, Norfolk Education Authority Guidelines.

Local Code of Practice

Staff will follow instructions from the employer, whether temporary or long term as expressed in the employer’s Code of Practice.

Emergency Procedures

Fire

Science staff will follow the normal school procedures in case of major fires. All science staff are trained to deal with minor bench fires, clothing fires and hair fires.
Spills

Spills of any volume 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. Advice on dealing with spills is given in chapter 7 of *Safeguards in the School Laboratory* (and in Section 7 of the CLEAPSS Laboratory Handbook.) (and in section 6 of the SSERC Hazardous Chemicals Manual)

Major spills are those involving the escape of toxic gases and vapours or of flammable gases and vapours in significant concentrations. (Small volumes can be ‘major spills’ if spilt in small rooms.) Staff are trained in the appropriate procedures (see Appendix 9.)

Injury

Science staff will follow the normal school procedures in cases which require first aid (see Appendix 10.) They will carry out immediate remedial measures, while waiting for first aiders, after the accidents which occur in science. See Appendix 8 (and the CLEAPSS Laboratory Handbook, section 5) (ASE, Safeguards in the School Laboratory chapter 17) (DfEE, Safety in Science Education section 6) (SSERC, Hazardous Chemicals Manual section 9.) Reporting procedures

Dangerous occurrences, injuries or suspected injuries to a pupil or a member of staff and instances of damage or theft will be reported using the standard school procedures. See Appendix 10.

Communications

All relevant updates will be discussed at department meetings.

In this department, all staff are used with this Policy.

Science room rules are posted on the wall in the science and DT rooms.
Appendix 1  Publications to be used as model risk assessments

(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, Hazards, CLEAPSS2, 1995 or later)

(CLEAPSS, Laboratory Handbook, CLEAPPSS2 1997 or later)

(DES, Microbiology; an HMI Guide for schools and further education, HMSO, (1990 or 1993 Reprint), (Out of print)


(SSERC, Preparing COSHH risk assessments for project work in schools, SSERC, 1991)

(DENI, Safety in Science Laboratories, DENI, 1989)

On more general matters;


CLEAPSS, Monitoring the implementation of science safety policies, CLEAPSS, Aug 1997, Ref No PS 30


Heath and Safety information is published by SSERC in its Science & Technology Bulletin. These articles are often of general interest but are, of course, of particular application in Scotland. SSERC also publishes training materials on meeting the COSHH Regulations, the Pressure Systems and Transportable Gas Containers Regulations and the Electricity at Work Regulations.
Regular updates on safety matters are contained in the CLEAPSS *Bulletin* and the ASE’s *Education in Science*.

1 SSERC, St Mary’s Building, 23 Holyrood Road, Edinburgh, EH8 8AE. Tel 0131 558 8180; Fax; 0131 558 8191; E-mail: sserc@cleapss.org.uk
2 CLEAPSS School Science Service, Brunel University, Uxbridge, UB8 3PH. Tel 01895 251496; Fax 01895 814372; E-mail: science@cleapss.org.uk

**Appendix 2 Remedial measures for science staff**

**IMMEDIATE REMEDIAL MEASURES**

**What Science Staff should do while waiting for first aid**

The First Aid Regulations do not necessarily require there to be a qualified first aider among science staff, yet this is clearly desirable. Nevertheless, all staff have a duty to carry out remedial measures immediately while waiting for first aid or professional medical treatment. The following advice covers common laboratory accidents and is intended as a supplement to any local guidance on dealing with non-laboratory events, eg, epileptic fits.

**Chemical splashes in the eye**
Immediately wash the eye under running water from a tap for at least 10 minutes and for much longer in the case of alkalis. The flow should be slow and eyelids should be held back. Afterwards, the casualty should be taken to hospital (with irrigation continuing during the journey for an alkali in the eye.)

**Chemical splashes on the skin**
Wash the skin for 5 minutes or until all traces of the chemical have disappeared. Remove clothing as necessary. If the chemical adheres to the skin, wash gently with soap.

**Chemicals in the mouth, perhaps swallowed.**
Do no more than wash out the casualty's mouth. After any treatment by the first aider, the casualty should be taken to hospital.

**Burns**
Cool under gently running water until first aid arrives.

**Toxic gas**
Sit the casualty down in the fresh air.

**Hair on fire**
Smother with a cloth.

**Clothing on fire**
Smother by pushing the casualty to the ground, flames on top. Spread a thick cloth or garment on top if necessary. A fire blanket is ideal but use only if very close by.

**Electric shock**
Taking care for your own safety, break contact by switching off or pulling out the plug. If it is necessary to move the casualty clear, use a broom handle or wooden window pole or wear rubber gloves. If casualty is unconscious, check that airways are clear and begin artificial ventilation if necessary.

**Severe cuts**
Lower the casualty to the floor and raise the wound as high as possible. Apply pressure on or as close to the cut as possible, using fingers or a pad of cloth. Protect yourself from contamination by blood. Leave any embedded large bodies and press round them.

**Notes**
Chemical splashes in the eye. More advice on washing is given in *(the CLEAPSS Laboratory Handbook Section 3) / (Safeguards in the School Laboratory p107.)*

Chemicals in the mouth. Sometimes attempts are made to administer an ‘antidote’. This is likely to do more harm than good and should not be attempted.

**Appendix 3 Emergency procedures**
If a major spill of a fuming substance occurs, the staff will ask the fire service to deal with it, warning it that breathing apparatus will be needed.

These numbers are displayed near the telephone(s)

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<td></td>
<td>FIRST AIDER</td>
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<td></td>
<td>(SAFETY OFFICER)</td>
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<td>(SCIENCE ADVISER)</td>
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<td>(HEAD OF DEPARTMENT)</td>
<td>07867 756376</td>
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**Appendix 4 School injury reporting procedure**
Following an injury, so that the Regulations (RIDDOR) can be complied with, the accident must be reported to HT, and report form must be returned to HT / PW. See staff hand book for relevant details.

Appendix 5 Guidelines for Science 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 pupils. They have specific duties; to be familiar with this health and safety policy, its updates, appendices and the safety texts it refers to. They must observe the requirements of this policy and fulfill any special responsibilities it gives them. They must co-operate with colleagues in their specific safety duties. They have a duty to report to local management any failure of equipment which has a safety function.

2. Staff practice must set a good example to pupils and be consistent with pupil laboratory rules, eg, over the wearing of eye protection.

3. Staff must be familiar with emergency drills and familiar with the location in each science room of; the escape route, fire fighting equipment, the nearest first-aid box, (the water tap with tubing for eye washing) / (eye wash station), the main gas cock, the main electricity switch and the 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 gas taps should be completely turned off and all mains-operated apparatus switched off. At the end of the day, if practicable, gas should also be turned off at the laboratory main gas cock and electricity at the laboratory main switch.

5. Eating, drinking, smoking and the application of cosmetics should not take place in laboratories, preparation rooms or storage areas.

6. A teacher or technician must assess the risks very carefully before conducting any practical operation in the laboratory when alone in the science department. Nothing should be done which could lead to an accident needing a remedial measure. (See Appendix 8)

7. In general, pupils 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.

8. Science laboratories, preparation rooms and stores should be locked by the staff when not in use, unless so doing hinders an essential fire escape route. (They should
not be used by teachers who are not scientists for teaching or registration (unless they have received special training.) They should be available for teacher-supervised club activities only by special arrangement.

Teachers

1. Open-ended investigations must be so organised that the teacher can assess any risks and lay down precautions before any hazards are met.

2. If, because of large class size or indiscipline, safety cannot be maintained during certain practical work, the work should be modified or abandoned. This decision should be reported to the (Head of Department) / (Science Co-ordinator) / (Subject specialist).

3. A teacher is responsible for the safety of any of his/her classes taken by a student teacher. If the normal class teacher is absent, another science teacher must be given this responsibility by the Head of Department.

4. 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 repeat such warnings.

Appendix 6  Rules for pupils during science lessons (it is the responsibility of the teacher to inform pupils of these rules, and not proceed with an activity if the teacher believes the pupil does not fully understand these instructions.)

1. You must not enter a laboratory unless instructed to do so by a teacher.

2. You must not do anything with equipment or materials unless told to do so by a teacher. You must follow instructions precisely.

3. You must wear eye protection when told to do so and keep it on until told to take it off when all practical work, including clearing away, is finished.

4. When instructed to use a Bunsen burner, make sure that hair, scarves, ties etc are tied back or tucked in to keep them well away from the flame.

5. When working with liquids, normally stand up; then you can move out of the way quickly if there is a spill.

6. Never taste anything or put anything in your mouth when in the laboratory unless your teacher tells you to do so. This includes sweets, fingers and pencils which might have
picked up dangerous chemicals from the bench.

7. If small amounts of chemicals or microbiological cultures get on your hands or any other part of the body, wash them off. Wash your hands after work with chemicals or with animal or vegetable matter.

8. Put waste solids in the correct bin, never in the sink.

9. Report any accident to the teacher. This includes burns or cuts and chemicals in the mouth, the eyes or on the skin.

10. Keep your bench clean and tidy, with bags put in a place where people will not trip over them. Wipe up small splashes with a damp cloth and report bigger ones to the teacher.

Evaluation

This policy will be evaluated by the Science Co-ordinator and Lead Assistant for Science on an annual basis. It will then be checked by a member of the Senior Leadership Team.

Signed……………………………………………………………Date……………………………….

Date of Next Review Spring 2016