Safety XIII* How safe is your science department? A checklist for managers

■ Peter Borrows

The management of safety is increasingly important. Checklists are provided for science department self-evaluation, or for use by headteachers, governors and other managers in their monitoring role.

Under the *Management of Health and Safety at Work Regulations 1992*, managers (including, therefore, heads of department or faculty, headteachers and governors) need to set up systems to monitor whether appropriate safety procedures are being implemented by those whom they manage. A failure to monitor the implementation of policies (in safety and in other areas) is a frequent cause of criticism in OFSTED reports. Often managers themselves will not have specific expertise in some of the areas for which they have oversight, but they need to be satisfied that those who do have expertise are taking suitable measures. This checklist is intended to help managers assess whether this is the case for school science departments. Heads of science will be able to use it for self-evaluation, but it may be particularly useful if headteachers or governors ask for advice on science safety policies. It is based around the suggestions for a Science Department Safety Policy, contained in the course materials for *The Management of Safety: a Course for Heads of Science* (ASE INSET Services, 1994). It is likely to need some customising to meet the needs of a particular school.

The checklist is presented in two versions:

- A summary checklist - to facilitate overall monitoring
- A detailed checklist - to enable staff to carry out audits of particular aspects

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Management of Safety in Science: Summary Checklist ....School

1 Safety Policy Document
If required by the employer, is there an up to date and appropriate science safety policy ?

yes ☐ no ☐

2 Safety Check Logbook or File
Does the department have a file or log book, showing when various checks/tests were carried out, by whom, and with what outcome?

yes ☐ no ☐

3 Functions of Named Persons
Do named individuals have safety functions related to particular courses, for the induction of new staff, etc?
List the names and their functions (on the back, if necessary)

yes☐ no ☐

4 Risk Assessments (for the *COSHH Regulations*, the *Management Regulations*, etc)
Are there clear procedures for risk assessment, and for alerting staff to the outcomes?

yes ☐ no ☐

5 Safety Guidance, Training and Communication
Are there appropriate rules for pupils, suitable guidance and training for staff, and an effective mechanism for the communication and dissemination of safety information?

yes ☐ no ☐

6 Fume Cupboard Testing
Is the testing of fume cupboards in accordance with the *COSHH Regulations*?

yes ☐ no ☐

7 Pressure Systems
Is the testing and checking of pressure vessels and gas regulator valves in accordance with the requirements of the *Pressure Systems and Transportable Gas Containers Regulations?*

yes ☐ no ☐

8 Radioactive Substances and Ionizing Radiation
Is there a Radiation Protection Supervisor, and are the legal requirements fully met?

yes ☐ no ☐

9 Portable Electrical Appliance Testing
If portable electrical appliance testing is a task delegated to the science department, does the testing meet the employer's requirements?

yes ☐ no ☐

10 Fire Extinguishers
Are fire extinguishers checked annually?

yes ☐ no ☐

11 Chemicals
Are chemicals date-stamped on arrival, clearly labelled, and the condition of those liable to deteriorate checked regularly?

yes ☐ no ☐

12 Personal Protective Equipment and Other Safety Equipment
Is eye protection, and other protective equipment, readily available, in good condition, and used whenever the risk assessment requires it?

yes ☐ no ☐

13 Conditions of Laboratories, Store Rooms and Preparation Rooms
Is the condition of the science accommodation (including appropriate safety signs) subject to regular systematic checks?

yes ☐ no ☐

14 Employer's Local Rules or Codes of Practice
If required by the employer, are any Local Rules/Codes of Practice known and adhered to? yes ☐ no ☐

15 External Health and Safety Audit
Has there been any safety audit by someone external to the school, with recommendations being acted upon?

yes ☐ no ☐

16 Action: agreed outcomes of the safety check

Checked by....................... Date ....

Management of Safety in Science: Checklist ....School

1 Safety Policy Document

1.1 Does your employer expect the science department to have a safety policy
document? yes ☐ no ☐
(If the answer is NO, the other questions in Section 1, except perhaps 1.5, can be
ignored, although it would certainly be considered good practice to have a depart-
mental policy, and the school management may well wish to encourage it, in which
case the remaining questions in this Section could be used)

1.2 Does the science department in fact have a safety policy document? yes ☐ no ☐

1.3 If no, what is the target date for producing one? ....

1.4 If yes, when was it last up-dated? ....

1.5 Have copies of the policy or other written guidance been issued to all staff? yes ☐ no ☐

2 Safety Check Logbook or File

2.1 Does the department have a file or log book, showing when various checks/tests
were carried out, by whom, and with what outcome? yes ☐ no ☐

3 Functions of Named Persons

Whether in a policy document, staff handbook or otherwise are there named persons
with the following functions (*depending on the organization, some of these may be
mutually exclusive*):

3.1 Maintenance of an up to date collection of safety documentation? yes ☐ no ☐
3.2 Radioactive sources/ionizing radiation (the Radiation Protection Supervisor)? yes ☐ no ☐
3.3 Inducting new staff, including newly qualified teachers and technicians, into
the safety policy and procedures of the department? yes ☐ no ☐
3.4 Safety aspects of/risk assessments for the course in Y7? yes ☐ no ☐
3.5 Safety aspects of/risk assessments for the course in Y8? yes ☐ no ☐
3.6 Safety aspects of/risk assessment for the course in Y9? yes ☐ no ☐
3.7 Safety aspects of/risk assessment for the course in Y10? yes ☐ no ☐
3.8 Safety aspects of/risk assessment for the course in Y11? yes ☐ no ☐
3.9 Safety aspects of/risk assessment for biology courses? yes ☐ no ☐
3.10 Safety aspects of/risk assessment for chemistry courses? yes ☐ no ☐
3.11 Safety aspects of/risk assessment for physics courses? yes ☐ no ☐
3.12 Are there sufficient 'yeses' in the above list to cover all courses? yes ☐ no ☐
3.13 First Aid (not necessarily a member of the science department)? yes ☐ no ☐

4 Risk Assessments (for the *COSHH Regulations* and *Management Regulations*)

4.1 Whether in a policy document, staff handbook or otherwise, is there a state-
ment about how risk assessment requirements are being met? yes ☐ no ☐

4.2 Does the risk assessment procedure cover those required by the *COSHH
Regulations* (ie hazards to health), the *Management of Health and Safety at
Work Regulations* (ie hazards leading to harm) and any other Regulations? yes ☐ no ☐

4.3 Is there a mechanism for alerting staff to the presence of hazardous
chemicals (eg by instructing technicians to issue the relevant CLEAPSS
Hazcards whenever a hazardous chemical is used? yes ☐ no ☐

4.4 Are schemes of work, lesson plans, teachers' guides, technicians' guides, or
similar departmental documentation annotated by the department to identify
hazards and list the required precautions? yes ☐ no ☐

4.5 Is there a clear procedure to obtain Special Risk Assessments for situations
not covered by the General Risk Assessments? yes ☐ no ☐

5 Safety Guidance, Training and Communication

Whether in a policy document, staff handbook or otherwise, is there

5.1 A set of safety rules for pupils?   yes ☐ no ☐

5.2 Guidance for staff (teaching and non-teaching) on supervision of pupils in laboratories?   yes ☐ no ☐

5.3 Guidance on access to and the locking of laboratories?   yes ☐ no ☐

5.4 Guidance/rules for staff(teaching and non-teaching) on what is expected of them in terms of health and safety generally?   yes ☐ no ☐

5.5 A set of clear procedures for the induction and training of new staff, newly qualified staff, students, supply or cover teachers?   yes ☐ no ☐

5.6 A set of clear procedures for discussing safety and up-dating all staff on new safety information?   yes ☐ no ☐

5.7 An up to date reference collection of safety documentation in a location known to all staff?   yes ☐ no ☐

6 Fume Cupboard Testing

6.1 Whether in a policy document, testing record file or otherwise, is there a statement about fume cupboard testing?   yes ☐ no ☐

6.2 Is the testing of fume cupboards a task delegated to the science department?   yes ☐ no ☐

6.3 Were fume cupboards last tested within the past 14 months (*COSHH Regulations*)?   yes ☐ no ☐

6.4 What action was taken about any failures?   ....

7 Pressure Systems

7.1 Whether in a policy document, testing record file or otherwise, is there a statement about autoclave, steam engine, and other pressure vessel checking? (*Pressure Systems and Transportable Gas Containers Regulations*)   yes ☐ no ☐

7.2 Is the checking of autoclaves, steam engines and other pressure vessels a task which has been delegated to the science department?   yes ☐ no ☐

7.3 Were autoclaves, steam engines, and other pressure vessels last checked within the past 12 months?   yes ☐ no ☐

7.4 What action was taken about any failures?   ....

7.5 Are gas cylinder regulator valves regularly checked? (*Pressure Systems and Transportable Gas Containers Regulations*   yes ☐ no ☐

8 Radioactive Substances and Ionizing Radiation

8.1 Whether in a policy document, testing record file or otherwise is there a set of Local Rules for the Use of Ionizing Radiation (radioactive sources)?   yes ☐ no ☐

8.2 Is there a log book which shows radioactive sources signed in and out?   yes ☐ no ☐

8.3 Does the log book appear to be up to date, and in use?   yes ☐ no ☐

8.4 Is there a statement about testing radium sources for leakage?   yes ☐ no ☐

8.5 Were radium sources last tested within the past 12 months?   yes ☐ no ☐

9 Portable Electrical Appliance Testing

9.1 Whether in a policy document, testing record file or otherwise, is there a statement about testing portable electrical appliances?   yes ☐ no ☐

9.2 Is the testing of portable electrical appliances a task delegated to the science department?   yes ☐ no ☐

9.3 Were portable electrical appliances last tested within the past 12 months?   yes ☐ no ☐

10 Fire Extinguishers

10.1 Whether in a policy document, testing record file, or otherwise, is there a statement about checking fire extinguishers?   yes ☐ no ☐

10.2 Is the checking of fire extinguishers a task delegated to the science department? yes ☐ no ☐

10.3 Were fire extinguishers last checked with the past 12 months?   yes ☐ no ☐

11 Chemicals

11.1 Whether in a policy document, or otherwise, is there a statement about the date-stamping of containers of chemicals on arrival?   yes ☐ no ☐

11.2 Does it take place?   yes ☐ no ☐

11.3 Whether in a policy document, or otherwise, is there a statement about checking the condition of certain chemicals regularly?   yes ☐ no ☐

11.4 Is there a log book or similar to record when this was done?   yes ☐ no ☐

11.5 Was this within the last 12 months?   yes ☐ no ☐

11.6 Whether in a policy document or otherwise, is there a statement indicating the location of a chemical spillages kit?   yes ☐ no ☐

12 Personal Protective Equipment and Other Safety Equipment

12.1 Are there sets of eye protectors in each laboratory, in sufficient number for all pupils in any class likely to be taught there, and for their teacher?   yes ☐ no ☐

12.2 Is the eye protection in satisfactory condition?   yes ☐ no ☐

12.3 Is there evidence that eye protection is worn whenever the risk assessment requires it?   yes ☐ no ☐

12.4 Are other items of suitable protective equipment (eg gloves, safety screens) available for use when required by the risk assessment?   yes ☐ no ☐

13 Conditions of Laboratories, Store Rooms and Preparation Rooms

13.1 Whether in a policy document, or otherwise, is there a statement about regularly checking the condition of the laboratories, preparation rooms, and stores?   yes ☐ no ☐

13.2 Is there a checklist or similar guidance?   yes ☐ no ☐

13.3 Does such checking take place (eg, is there a record in a log book, or similar)?   yes ☐ no ☐

13.4 What action was taken about any shortcomings? ....

13.5 Are appropriate safety signs and warnings displayed? (eg, gas and electricity cut-offs, immediate remedial measures, eye protection, etc)   yes ☐ no ☐

14 Employer's Local Rules or Codes of Practice

14.1 Are any Local Rules/Codes of Practice of the employer known and adhered to (eg, lists of hazardous chemicals)?   yes ☐ no ☐

15 External Health and Safety Audit

15.1 Has the science department ever been subjected to a Health and Safety Audit by someone external to the school management (eg, the science adviser, or the head of science in a neighbouring school)?   yes ☐ no ☐

15.2 If so, when was this done? ....

15.3 What progress has been made in implementing any improvements suggested by the audit (approximate % complete)? ....

15.4 What is the target date for implementing the most urgent of the outstanding improvements? ....

16 Action

16.1 Date of discussion with head of department or faculty of any deficiencies ....

16.2 Agreed outcome(s) of such discussions ....

Checked by ....   Date.................................