

Ormiston Academies Trust

Packmoor Ormiston Academy Science Health and Safety policy

Policy version control

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1. Introduction and Context

- 1.1. The management of health & safety with the Science department is important to minimise risk to employees and others. Within the academy environment, there are particular risks including use of management of chemicals and exposure to radioactive sources.
- 1.2. The maintenance and effectiveness of precautions such equipment, fume cupboards and fire management equipment is important in all premises. To ensure that risk is minimised to as low as reasonably practicable, processes are adopted to ensure that safety matters, preventative maintenance and emergency procedures arrangements are implemented.
- 1.3. The Science Policy defines Ormiston Academies Trusts standards and procedures for management of all safety requirement specified are mandatory unless stated otherwise. Employee cooperation in maintaining a safe working environment is essential and any queries on matter arising as a result of local implementation, should be referred to Academy Safety Officers or the OAT Health & Safety Officer.
- 1.4. Ormiston Academies Trust recognises the need for specific health & safety support in reference to Science. Therefore, Ormiston Academies Trust registers all academies to CLEAPSS. CLEAPSS offers guidance, contained in publications which are recognised by Ofsted and the HSE has the definitive basis for safe practice for practical work in schools. CLEAPSS is regularly consulted by government departments including the DFE, DEFRA and the Home Office.
- 1.5. The outcome of the Science Policy is that adequate arrangements are made to protect students, employees, and other working on, or visiting the premises, by minimising the risks to reduce the likelihood of accidents, incident, and ill health.

2. Scope

- 2.1. The policy applies to all premises within Ormiston Academies Trust and all employees, volunteers, students, contractors, and visitors and the following should be adopted:
 - 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 references to it.
 - To look out for any revisions.
 - To follow its provisions.
 - To cooperate with other members of staff in promoting health & safety.
- 2.2. This policy is inclusive of all Science departments including Preparation rooms and storage cupboards.
- 2.3. The Science H&S Policy should be read in conjunction with the following associated documents:
 - Health & Safety Policy for Organisation & Arrangements
 - Science – Supplementary Risk Assessment – CLEAPSS

- Science – Recipe Sheets – CLEAPPS
- Science – Supplementary Risk Assessment – CLEAPPS
- Science – Hazcards – CLEAPPS
- Science – L248 – Running a Prep Room
- Science – Training – Health & Safety Induction and Training for Science Teachers – CLEAPPS –
- Science – Training – Health & Safety Induction and Training for Science Technicians – CLEAPPS
- Science – L93 – Ionising Radiations and Radioactive Substances – Health & Safety Induction and Training for Science Teachers

3. Roles & Responsibilities

3.1. The overall responsibility for employees, visitors and pupils is with the Academy Principal. Therefore, the Principal has the responsibility to:

- Be familiar with this Health & Safety Policy by periodic reference to it and communicate with other members of staff in promoting health & safety within the Science department.

3.2. Delegate responsibility to Head of Science to ensure that they:

- Implement Hazcards from CLEAPSS
- Implement recipe sheets from CLEAPSS
- Implement supplementary risk assessment from CLEAPSS
- Implement the L248 – Running a Prep Room
- Implement the Laboratory Handbook from CLEAPSS
- All employees are adequately trained and given enough time to become competent
- Employees who require health surveillance are reviewed on a regular basis
- Ensure risk assessments are completed for practical session not identified on the above
- Suitable first aid provisions are in place
- Suitable PPE is readily available, maintained and stored correctly

4. Policy Statement

4.1. Legislation

4.1.1. Ormiston Academies Trust recognised that the following legislation is relevant within the Science department.

- Health & safety at Work etc. ACT 1974
- Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations
- Dangerous of Substances Hazardous to Health Regulations
- Genetically Modified Organisms (controlled use) Regulations
- Health & Safety (Display Screen Equipment) Regulations
- Health & Safety (First Aid) Regulations
- Health & Safety (Safety signs and signals) Regulations
- Ionising Radiations Regulations
- Lifting Operations and Lifting Equipment Regulations
- Management of Health & Safety at Work Regulations
- Noise at Work Regulations
- Management of Health & Safety at Work Regulations 1999
- Control of Substances Hazardous to Health 2002
- Personal Protective Equipment at Work 1992
- Pressure Systems Safety Regulations
- Provision and Use of Work Equipment Regulations (PUWER)
- Reporting of Injuries, Diseases & Dangerous Occurrences Regulations (RIDDOR)
- Workplace (Health, Safety and Welfare) Regulations
- Manual Handling Regulations 1992
- Electricity at Work Regulations 1989

4.2. OAT General H&S Policies and Procedures

4.2.1. OAT Health & Safety Roles & Responsibilities and Organisation and Arrangements acts as the overarching H&S policy

4.2.2. The following procedures should be adopted to form part of this policy

- [Accident/Incident/First Aid/RIDDOR Procedure](#)
- [Control of Substances Hazardous to Health Procedure](#)
- [Electrical and PAT Testing](#)
- [Fire Management Policy and Procedure](#)
- [Lone Working Procedure](#)
- [Manual Handling Procedure](#)
- [Personal Protective Equipment Procedure](#)
- [Risk Management Procedure](#)

- [Security Management Procedure](#)
- [Slip, Trips & Falls Procedure](#)
- [Water Management Policy and Procedure](#)
- [Working at Height Procedure](#)
- [Workplace Equipment Procedure](#)

5. Science Specific

5.1. Accidents/Incidents/Near Misses

- 5.1.1. Science staff will follow the normal school procedures in cases that require first aid. Science staff are trained to conduct immediate remedial measure while waiting for first aiders, after accidents which occur in the Science department.
- 5.1.2. Injuries or suspected injuries to pupil or member of staff, dangerous occurrences and instances of damage or theft will be reported using the OATnet accident, incident and near miss procedure. OAT H&S Officer will offer guidance and support with RIDDOR.

5.2. Animals, Plants and Microorganisms

- 5.2.1. CLEAPSS GL363 – Activities using plants, GL376 – Principles of keeping animals in the science department must be implemented within the department

5.3. COSHH/DSEAR

- 5.3.1. CLEAPSS Handbook – Section 7 – Chemical Safety must be implemented within the department.
- 5.3.2. Each hazardous substance (highly flammable, highly combustible, toxic, corrosive should be kept apart from substances presenting different types of hazards.
- 5.3.3. Materials labelled highly flammable should be stored in locked metal fire resistant cupboards. Such cupboards are normally yellow in color and carry a highly flammable symbol. Only materials labelled highly flammable should be stored in the cupboard.
- 5.3.4. Hazcards should be used and readily available with all chemicals which are stored within the science department.
- 5.3.5. A list inventory of chemicals should be available at all times and reviewed on a regular basis.
- 5.3.6. Where there is inadequate natural ventilation, ventilation fans are provided with consideration to noise

- 5.3.7. The task of arranging safe storage of chemicals (and where necessary, disposal), concluding highly flammable liquids, in accordance with the requirement of the Dangerous Substances and Explosive Atmospheres Regulations (DSEAR) is given to the Science 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.
- 5.3.8. Hazardous activities involving chemicals restricted to those who have received specialist training.

5.4. Fire Precautions

- 5.4.1. Science members of staff will follow the normal school fire evacuation procedures.

5.5. Fume Cupboard

- 5.5.1. CLEAPSS G9 Fume Cupboards in Schools must be implemented within the department.
- 5.5.2. Fume Cupboard Notice must be placed on the fume cupboard to ensure that a check is performed before each use
- 5.5.3. The COSHH Regulations require testing of fume cupboard (Max 14 months) with a quick check before use.
- 5.5.4. A trained and competent person completes checks.
- 5.5.5. The records of the tests are available for staff reference and for inspection.

5.6. Personal Protective Equipment

- 5.6.1. CLEAPSS Handbook – Section 3 – Personal Safety must be implemented within the department.
- 5.6.2. The correct PPE must be provided to all employees
- 5.6.3. Eye protection, gloves, laboratory coats should be provided where a risk assessment requires them.
- 5.6.4. Prescription safety spectacles should be provided should an employee require them.
- 5.6.5. Eye protection should be made available to all visitors and students.
- 5.6.6. Lab coats should be laundered on a regular basis.

5.7. Pressure Vessels

- 5.7.1. CLEAPSS G214a – Examining autoclaves, pressure cookers and model steam engines and G214b – examining Autoclaves, Pressure Cookers, and Model Steam Engines – Written scheme of examinations must be implemented within the department.
- 5.7.2. Autoclaves, pressure cookers and model steam engines, need periodic inspection under the pressure system safety regulations.
- 5.7.3. A written scheme of control should be held within the Science department which is written by a competent person and usually the same person who inspects the unit.

5.8. Radioactive Sources

- 5.8.1. The Radiation Protection Advisor (RPA), the Radiation Protection Officer (RPO) and the Teacher in charge of Radioactive Sources should be clearly identified within documentation.
- 5.8.2. The Checklist for Head of Science or RPS (Schools) for Managing Radioactive Sources in Schools should be completed on an annual basis.
- 5.8.3. All documentation set out in DL93- Managing Ionising Radiations and Radioactive Substances should be completed and kept on file these include:
 - List of radioactive sources held
 - Monthly simple store check
 - Radioactive source history
 - Use log for radioactive sources
 - Staff authorised to use/handle radioactive sources, and training
 - Label for protactinium generator
 - RPS checklist for radioactive sources and store
 - Withdrawn (sample letter to supplier when purchasing radioactive sources)
 - Transport document (consignment note) for excepted package
 - Suitable labels for excepted packages
 - Example of a disposal record sheet
 - Detector test record

5.9. Risk Management

- 5.9.1. Due to the impracticality to write risk assessment for each of the many activities in school science. Ormiston Academies Trust endorse the use of the following publications as a source of model (General) risk assessments.
 - 5.9.1.1. CLEAPSS, publications generally
 - 5.9.1.2. CLEAPSS, Hazcards, current conditions

- 5.9.1.3. CLEAPSS, Laboratory Handbook, current edition
- 5.9.1.4. CLEAPSS, recipe book, current edition
- 5.9.1.5. CLEAPSS, L093, Managing Ionising Radiation & Radioactive Substances
- 5.9.1.6. CLEAPSS – GL025 – Model Risk Assessment for Laboratory Technician Activities
- 5.9.2. Whenever a new course is adopted or developed, all activities (including preparation and clearing-up work) are checked against the model risk assessment and significant findings are incorporated into texts in daily use i.e. the scheme of work and technician notes.
- 5.9.3. Where a task is more unusual the CLEAPSS Supplementary risk assessment should be adopted.
- 5.9.4. For any new task/activity or one not listed within the CLEAPSS Model Risk Assessments or the CLEAPSS Supplementary Risk Assessment, then a specific risk assessment should be completed to ensure that adequate controls are in place for activity to go ahead.
- 5.9.5. All staff need to have read the relevant risk assessment and completed the practical before it can be done as a class activity. A log of staff having read relevant risk assessment should be implemented within the department.
- 5.9.6. A Science Departmental General Risk Assessment is created to highlight the general H&S risks within the department.

5.10. Security

- 5.10.1. Access to Science teaching and preparation rooms will be controlled.
- 5.10.2. All teaching rooms, preparation rooms and storerooms are to be kept locked at all times except when in use.
- 5.10.3. It is the responsibility of the staff member leaving a room to see the room is empty and that the door is locked.
- 5.10.4. A non-science member of staff who have to supervise any class in a science room will receive a training brief covering the departmental safety rules.

5.11. Spillages

- 5.11.1. 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 are dealt with by teachers or technical staff using a 'spill kit.' Major spills are those involving escape of toxic gases and vapors or of flammable gases or vapors in significant concentrations. Staff should be trained in the appropriate procedures which may involve calling Fire and Rescue Services.

5.12. Training

- 5.12.1. Adequate training must be provided to all staff.
- 5.12.2. Specific training is highlighted in the OAT Training Matrix
- 5.12.3. New Science Technicians will be assigned a 'Support Mentor' to guide them through the induction process.

5.13. Waste Disposal

- 5.13.1. Waste chemicals and equipment are disposed of in an environmentally responsible manner in accordance with the relevant legislation.
- 5.13.2. Hazards should be used for correct disposal processes.

6. Related Documents

- 6.1.1. The Science Policy has due regard to statutory and government guidance including the following
 - CLEAPSS – Science

7. Monitoring and Review

- 7.1.1. The policy is reviewed every 3 years by OAT Head Office, any changes made to this policy will be communicated to all members of staff.
- 7.1.2. All members of staff are required to familiarise themselves with this policy as part of their H&S induction.

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 pupils. 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 pupils and be consistent with pupil laboratory rules, eg, over the wearing of eye protection.
3. Staff must be familiar with emergency drills and with the location in each science room of the escape route; fire-fighting equipment; the eye wash station; the main gas cock; 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 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 and the application of cosmetics must not take place in laboratories, storage areas or preparation rooms. Pupils must 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 and make the Academy Safety Officer or Operation staff aware of their presence.
7. 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, staff must lock preparation rooms and stores when not in use. Pupils must never be allowed into preparation rooms unless 100% supervision can be guaranteed. Laboratories must only be used by teachers who are not scientists for teaching or registration after they have received special training and laboratories must be available for teacher-supervised club activities only by a special arrangement.

Teachers

1. At the beginning of each school year, teachers must make sure that their classes have copies of the student laboratory rules and issue them if necessary. They should be stuck into an exercise book, work folder or similar place.
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 practical's, 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 considering a further risk assessment, checking 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 / practical work begins.
5. If, because of large class size or 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 Science.
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.
8. Teaching staff should be aware of the medical conditions of individual students and aim to include participation by these students as fully as possible.
9. Departmental staff must make themselves familiar with the Academy Lone Working Procedures. In addition to this, staff are to consider their personal health & safety while working in the department alone, before the start of the academy day, after the academy day and into the evenings and during the academy holidays or during extracurricular activities. No trialling of practical's should be attempted unless they are accompanied by another member of the department or a suitable qualified and experienced technician. All equipment and substances used must be stored away safely after use.

Laboratory Rules for Students

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 (eg, 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 splash 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.

Staff Roles and Emergency Contacts

Staff roles and/or emergency contacts updated on:	
Advice on health & safety and all aspects of practical science generally	CLEAPSS Helpline 01895 251496. Email: science@cleapss.org.uk
OAT Health & Safety Officer	
Senior Lead Practitioner – Science	
Academy Safety Officer	
Head of Department	
Department Senior Technician	
Subject specialist for consultation over health & safety matters in biology	
Subject specialist for consultation over health & safety matters in chemistry	
Subject specialist for consultation over health & safety matters in physics	
Overseeing the checking of activities against the model risk assessments and recording significant findings	
Detailed checking of activities is further delegated by courses / subjects/ year groups.	
Contractor trained to assess the fume cupboard	
[The teacher in charge of radioactive sources (Radiation Protection Supervisor (Schools), RPS (Schools)	
Radiation Protection Adviser, RPA	
Radiation Protection Officer, RPO	

Emergency contacts

Emergency advice CLEAPSS can provide support and guidance with all of these situations.	CLEAPSS Helpline 01895 251496
<i>Serious accident:</i> Ambulance service	
<i>Serious accident:</i> School first-aiders	
<i>Serious accident:</i> Academy Safety Officer	
<i>Serious chemical theft:</i> Police or Police anti-terrorist hotline	
<i>Major chemical spill:</i> Fire & Rescue Service Chemical Incident Unit	
<i>Gas leak:</i> Gas company	
<i>Radiation accident:</i> Radiation Protection Officer	
Other	

