



# Castlecroft Primary School

## Design & Technology Policy

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## Contents page:

|  |    |
|--|----|
| Design and Technology at Castlecroft.....            |    |
| Key roles in Design.....                             | 4  |
| Intent .....   | 4  |
| Implementation .....                                 | 6  |
| Impact.....  | 10 |
| Contribution of music to other curriculum areas..... | 12 |
| SMSC development.....                                | 13 |
| Inclusion.....                                       | 14 |
| Equal Opportunities.....                             | 15 |
| Parental involvement .....                           | 16 |

|   |          |
|---|----------|
| <b>Design and Technology at Castlecroft</b> | <b>3</b> |
| <b>Key roles in Design and Technology</b>   | <b>3</b> |
| <b>Intent</b>                               |          |
| <b>Implementation</b>                       |          |
| <b>Impact</b>                               |          |
| <b>Cross curricular links</b>               |          |
| <b>SMSC development</b>                     |          |
| <b>Inclusion</b>                            |          |
| <b>Equal opportunities</b>                  |          |
| <b>Health and Safety</b>                    |          |
| <b>Parental Involvement</b>                 |          |

## D&T at Castlecroft:

Design and Technology at Castlecroft embraces creativity, celebrates innovation and encourages self-evaluation. Pupils understand that the products and prototypes they make follow the three S's:

“Something, for somebody, with some purpose.”

Learning from mistakes, developing ideas and improving their work as projects unfold are crucial for pupils to take ownership of their designs. A well delivered Design and Technology curriculum within the Primary setting will provide a secure foundation upon which to build within Secondary education.

With our fast changing world and reliance upon digital technology, pupils at Castlecroft are given the very best opportunities to thrive in the future 'made world'.

## Key roles in Design and Technology:

### **The D&T co-ordinator is responsible for:**

- This policy and its implementation including supporting staff in the delivery of D&T.
- Ensuring that the governing body is kept up to date with any actions and initiatives that are relevant to the subject.
- Writing the relevant part of the School Improvement Plan (SIP) and providing the headteacher and governing body with regular reviews of the SIP.
- Completing activities to monitor the quality of D&T education and use this to identify staff training needs and arrange or deliver CPD

### **The Governing body are responsible for:**

- Ensuring the effective delivery of the National Curriculum in D&T.
- Identifying a link governor to liaise with the D&T co-ordinator and update the governing body with regular link governor reports annually.

## Intent:

Early Years Foundation Stage

Nursery and Reception

The creative and exploratory nature of our Nursery and Reception settings set a wonderful, foundation upon which to build a successful design and technology curriculum. The children in Early Years are able to freely create structures using construction kits, improve fine motor skills through cutting and tweezer skills and have the freedom to use tools within their learning environment. Continuous and enhanced provision includes elements of problem solving and improving their work as they learn about suitability of materials and strengthening structures.

Each week, pupils cook a mixture of sweet and savoury foods and hygiene practice such as washing hands and tying hair back is adhered to.

From Key Stage 1 onwards, our Design and Technology curriculum has been developed to ensure pupils meet the six design principles.

1. User
2. Purpose
3. Functionality
4. Design decisions
5. Innovation
6. Authenticity

### Key Stage 1

Pupils in key stage 1 will build upon the independent thinking and fine motor skills practised and acquired in the EYFS setting to design, make, improve and evaluate products. An understanding of the iterative design process (figure 1) begins in Year 1 and 2 where pupils start to learn subject specific vocabulary and how products can be created to solve a problem. They begin to make decisions about what will work and state and communicate their design preferences. Pupils will have the opportunity to carry out simple research and be able to self-select tools and materials to make their product. Food technology is also included and pupils will learn about food sources and create dishes following health and safety measures.

### Key Stage 2

By the end of Key Stage 2, pupils should be familiar with the 6 design principles and have a deepening understanding of the iterative design process (figure 1). They will widen their knowledge of mechanisms, electronic systems and textiles and communicate their ideas in a wider variety of ways including, exploded diagrams, cross sectional drawings and CAD. Pupils will still self-select materials and tools to create purposeful products and will be aware of individuals and events which have shaped the world of Design and Technology. Cooking and nutrition will still be

important and pupils will delve into the topic of seasonality and discover where food comes from.

## Implementation:

### Early Year Foundation Stage

Nursery and Reception pupils will have access to a wide range of self-selectable man-made and natural materials and tools such as cardboard, fabric, scissors and wooden hammers to create their own models. They will have the chance to test these at their level and make decisions about what they could try next. With access to a range of adhesives, pupils will begin to discover the best way to join materials. Within small groups, pupils will work under adult supervision to follow a recipe and develop an interest in cooking.

### Key Stage 1 and 2

The Design and Technology curriculum will be delivered through a series of class projects (three per year – figure 2). Each project will pose a “problem” (the design brief) and pupils will be challenged to solve it by designing and making something. Pupils will follow the same steps through the design cycle (figure 1) and their research, designs, developments and evaluations will be recorded in a booklet (one for each project) along with a photograph of their finished product. There will be a knowledge organiser for each unit of work which can be used by staff in Key Stage 1, and pupils in Key Stage 2.

**Figure 1: The iterative design cycle**

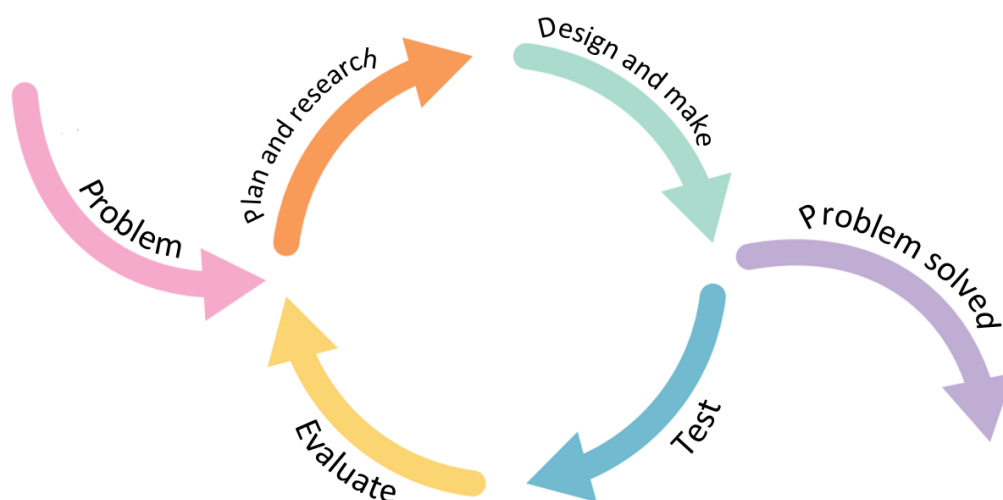


Figure 2 – Whole School Design and Technology Overview

| YEAR | Project 1  | Project 2                                     | Project 3                                       |
|------|--|---|---|
| 1    | Shade and Shelter<br>(Strengthening structures)  | Taxi!<br>(Wheels and axles)                   | Chop, slice and mash<br>(Cooking and nutrition) |
| 2    | Push and Pull<br>(Sliders and Levers)            | Remarkable Recipes<br>(Cooking and nutrition) | Cut, stitch and join<br>(Textiles)              |
| 3    | Cook Well, Eat Well<br>(Cooking and nutrition)   | Making It Move<br>(Cams)                      | Greenhouse<br>(Strengthening structures)        |
| 4    | Fresh Food, Good Food<br>(Cooking and nutrition) | Functional and Fancy Fabrics<br>(textiles)    | Nightlight<br>(Electrical circuits)             |
| 5    | Moving Mechanisms<br>(Pneumatics)                | Eat the Seasons<br>(Cooking and nutrition)    | Architecture<br>(Strengthening structures)      |
| 6    | Fun Fabrics<br>(Textiles)                        | Engineer<br>(Strengthening structures)        | Food for Life<br>(Cooking and nutrition)        |

## **Wider opportunities**

### **Engineering Week**

This week provides pupils with the opportunity to learn more about structures and mechanisms and celebrates famous engineers and how their breakthrough designs have helped shape the world. Where possible, local engineers will be invited into school to inspire the children and answer questions. Each class will have engineering challenges throughout the week and there will be a competition across Key Stage 1, Lower Key Stage 2 and Upper Key Stage 2 based on an engineering problem.

### **Cookery Club**

This extra-curricular club can only be run with the help and dedication of volunteers. It will provide pupils from Key Stage 1 and 2 to the chance to further develop a love of preparing and making dishes. Health and safety and food hygiene are woven into the sessions which focus on a seasonally linked dish every half term.

### **STEM club**

A weekly club run by the D&T Coordinator. Pupils will draw upon their knowledge of science, engineering, maths and technology to solve problems, tackle challenges

and learn new concepts through the use of digital technology and practical resources. This club will develop ingenuity and harness pupils' resourcefulness.

### Castlecroft MasterChef

Pupils will have the opportunity to participate in an inter-key stage cooking competition. Pupils will have to design and cook a 3 course meal within classes to present to our school kitchen staff will act as the judges. Apart from being very enjoyable, pupils will also have more time dedicated to learning about healthy diet, seasonality and where food is reared, caught and processed.

### External Competitions

Where appropriate, Castlecroft pupils will be encouraged to enter Design and Technology based competitions to apply skills and knowledge gained within lessons.

## Impact :

### Early years:

The impact of D&T will be evident within Early Years pupils if they begin their Key Stage 1 journey being confident self-selectors, natural problem solvers and self-evaluators. A pupil who has expressed their creativity daily and been allowed to use tools, construction materials and learnt by 'doing' will be able to apply skills learnt to many areas of the curriculum. If pupils have been allowed to make mistakes and learn from them will have the correct mind-set that failure is not negative but a point from which to improve. Pupils will hopefully have had lots of fun too! Design is a fun, bright, exciting subject and the nursery and reception continuous provision allows pupils the time they need to embrace the area of D&T they enjoy most.

### Key stage 1:

Key stage one success will be assessed by the pupil's acquisition of key skills and an understanding of the design process. A pupil who is working at the expected standard will be able to:

| <b>Design</b>  |
|--|
| Design purposeful and functional products.           |
| Communicate their ideas (drawing, taking, mock ups). |

|   |
|---|
| <b>Make</b>   |
| Self-select tools and equipment and use them safely.  |
| Choose appropriate materials and components.          |
| <b>Evaluate</b>                                       |
| Research existing products                            |
| Evaluate their own product against design criteria    |
| <b>Technical Knowledge</b>                            |
| Know how to make a structure more stable              |
| Use mechanisms in their products                      |
| <b>Cooking and Nutrition</b>                          |
| Prepare dishes as part of a healthy and balanced diet |
| Understand where food comes from                      |

Key stage 2:

Pupils in Key Stage 2 will build upon key skills and knowledge of the design process and a pupil working at the expected standard should be able to:

|  |
|--|
| <b>Design</b>  |
| Design and make useful products based on research led design criteria.                         |
| Communicate and develop design ideas through sketches, CAD, pattern pieces etc.                |
| <b>Make</b>  |
| Self-select tools and equipment for practical tasks  |
| Choose materials and components base on their functional and aesthetic qualities.              |
| <b>Evaluate</b>  |
| Investigate and analyse existing products  |
| Evaluate against own design criteria and listen to the views od others                         |
| understand how key events and individuals in design and technology have helped shape the world |
| <b>Technical Knowledge</b>   |



|  |
|--|
| Understand how to strengthen and stiffen more complex structures.  |
| Understand and use mechanical systems in their products.   |
| Understand and use electrical systems in their products.   |
| Use digital technology to program, monitor and control their products.   |
| <b>Cooking and Nutrition</b>   |
| Understand and apply the principles of a healthy and varied diet   |
| Use a range of cooking techniques to cook mostly savoury dishes  |
| Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. |

### **Skill progression**

Pupils at Castlecroft will follow the Design and Technology's Progression Framework which clearly indicates how the skills of designing, making, evaluating, technical knowledge and cooking and nutrition are built upon between Key Stage 1 and 2.

## Cross curricular links

The ethos of improving a product which is not fit for purposes, underpins the whole curriculum. If a pupil does not get something right first time then they are taught there are no problems only solutions.

### **English**

Castlecroft's Design and Technology projects lend themselves perfectly as the stimulus for non-fiction writing such as instructions or explanations. Exploded diagrams allow pupils to practise labelling whilst sketches and cross sections give way to caption writing.

## **Mathematics**

Maths knowledge is drawn upon extensively within the D&T curriculum. From the basic counting of components and recognising numbers to measuring accurately in cm and grams and using the vocabulary of shape, pupils have the opportunity to use and apply their mathematical skills within all of the school projects.

## **Science**

Science, as Maths, underpins a successful Design Curriculum. Pupils can make links between scientific phenomena and use this to inform their design. For example, in Key Stage 1, pupils learn about materials and their properties before creating and strengthening a chair for the class bear. In Key Stage 2, pupils learn how to create a series circuit before designing and making a light up Christmas card.

## **Digital Technology**

Digital technology is an important element of D&T. Pupils need the opportunity to become familiar with using simple graphic design programmes and using technology to power and control their products. The internet provides a wealth of information when researching and more can be learnt about influential designers and engineers. Computer Aided Design (CAD) is used widely in the design industry and so exposing pupils to this format early in their education will provide them with the right tools to excel through secondary school.

## **Art**

Aesthetics are an important part of Design and Technology and pupils will be required to use colour and thoughtful presentation to enhance their design to make it appealing for their target audience. Art skills such as sketching and drawing are clearly defined within the National Curriculum and so it is important to make these links when teaching this part of the subject. Pupils can also apply the skills of painting, shading and printing when creating their final design.

## **Personal, social and health education (PSHE) and citizenship**

Design and Technology lessons can give pupils a sense of empowerment. They take ownership for their designs and their confidence grows as they see their ideas brought to life for a purpose. Pupils are encouraged to evaluate each other's work and this creates mutual respect for opinions. Pupils learn about health and safety and begin assess risks as well as learning about food hygiene and how to prepare dishes safely.

## SMSC Development:

At Castlecroft, we recognise that spiritual, moral, social and cultural education is central to the development of all pupils and underpins the whole curriculum and ethos of the school. It is reflected in the behaviours of individuals and in their interactions and also in the provision of teaching resources and learning environments.

**SMSC** is taught through and reflected upon in our D&T curriculum.

**Spiritual:** When designing, pupils draw upon their individual beliefs and experiences. At Castlecroft, pupils are taught to respect the values of others. Some design finishes may incorporate religious symbols or faith images and this is to be celebrated.

**Moral:** Design and Technology requires pupils to use their integrity for a number of tasks. Self-evaluation, the evaluation of others requires the children at Castlecroft to show respect for themselves and for the ideas of others.

**Social:** Design and Technology is not a solitary subject and requires the feedback of others and so it is vital that interactions within partnerships and small groups are assertive, purposeful and constructively critical. Pupils learn to develop confidence and self-esteem through receiving compliments for their work and by embracing setbacks in a safe and fun environment with their friends.

**Cultural:** We have a wide variety of cultures celebrated within our school and we hope that these shine through within our design lessons. Pupils' ideas are very important and so any link to experiences from home or their wider community are embraced and discussed openly.

## Inclusion:

All pupils are entitled to access the Design and Technology curriculum at a level appropriate to their needs and abilities. Teachers plan and follow well-structured lessons from the "Project on a Page" scheme and use a range of strategies to ensure full accessibility and sufficient challenge for all. The school makes efficient use of additional adults, deployed effectively to ensure that our curriculum is accessible for all.

As with all other Curriculum areas, we seek to ensure equality of access for our children with special needs, to the same educational opportunities as those available

to the rest of the population. In order to make use of these opportunities, it may be necessary to enhance the curriculum and resources available to pupils with special educational needs. They have an entitlement to a broad, balanced curriculum, which is relevant to their needs and which is delivered in a differentiated way. Our VI children will have activities and resources adapted by VI children and teachers.

At our school we teach Design and Technology to all children, whatever their ability. Design and Technology forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our music teaching we provide learning opportunities that enable all pupils to make progress. We do this by setting suitable learning challenges and responding to each child's different needs. Assessment against the National Curriculum allows us to consider each child's attainment and progress against expected levels.

To ensure inclusion:

- ✓ as a school with a VI base we are committed to ensure full inclusion for our VI pupils who are taught in class alongside their peers. These pupils are only withdrawn for specific needs such as mobility lessons. One to one support in lessons as appropriate, alongside quality modified resources ensures that these pupils make good progress and attain well.
- ✓ pupils or groups of pupils with additional needs or those who are under-achieving are identified through our assessment system and appropriate intervention carefully planned and monitored for impact.
- ✓ teachers and teaching assistants are all aware of disadvantaged pupils ensuring that they are targeted for support in lessons ensuring that they perform in line with non-disadvantaged pupils in the same ability band.
- ✓ children with identified SEND (including pupils with an EHCP) should be supported as and when they need it
- ✓ our number of EAL children is significantly below the national average however advice is sought and support will be given to these children should they need it

### Pupils with Additional Needs

As with all other Curriculum areas, we seek to ensure equality of access for our children with special needs, to the same educational opportunities as those available to the rest of the population. SEND children have an entitlement to a broad, balanced curriculum, which is relevant to their needs, and which is delivered using reasonable adjustments where appropriate to help them access quality teaching and

learning. Our SEND children-including our visually impaired (VI) children- will have activities and resources adapted by SEND support staff, VI support staff and teachers.

In order to provide quality first teaching, it may be necessary to enhance the curriculum and resources available to pupils with special educational needs. Where necessary the DT lead will contact Outreach and the Nurse team (or the Wolverhampton SEND Nurse) for specialist advice and support with adapting teaching (especially for pupils on an EHCP plan, or with Complex SEND)

Some children in school are unable to access a subject specific curriculum and in this case their learning is guided, and progress tracked, by the engagement model in line with government guidelines. Children within this group who have a diagnosis of ASD will have their small steps of progress tracked using SCERTS.

## Equal opportunities statement:

At Castlecroft Primary School we are committed to providing a teaching and learning environment which ensures equal access to our D&T curriculum regardless of social class, gender, ethnicity, culture, home background, special need or disability. We are committed to enabling all pupils to reach their full potential.

The Equality Act (2010) sets out anti-discrimination law in the UK replacing all previous equality legislation. It introduces the term “protected characteristics”. The protected characteristics are: age, disability, gender reassignment, race, religion or belief, sex, sexual orientation, pregnancy and maternity, and marriage and partnerships.

In our DT curriculum, we aim to promote equal opportunities with all our children and staff and offer equal opportunities to anyone who identifies with one or more of these characteristics. We aim to foster good relations between people who share a protected characteristic and those who do not.

Throughout the units we teach, we give the children chance to express themselves in their own way through the creative design process. We ensure that the projects we complete are not gender ‘stereotypical’ and everyone accesses the same resources and outcomes.

## Resources:

We keep resources for D&T in a central store. There are also topic boxes in classes containing the resources needed for completing each termly project. Teachers are

asked to monitor their resources in the first instance, however, the D&T Coordinator will carry out an annual audit to ensure supplies, tools and resources are available to support the teaching of the D&T curriculum.

## Monitoring and review:

At Castlecroft it is important to us to monitor and review the D&T curriculum. We will do this by:

- ✓ reviewing children's work and the quality of teaching in D&T. This will be done by the subject coordinator
- ✓ the subject leader is involved in supporting colleagues in the teaching of D&T, being informed about current developments in the subject.
- ✓ children will be responsible in taking part in self-assessment activities.
- ✓ the subject coordinator annually reviews the teaching and learning of D&T in schools for the School Development Plan
- ✓ the D&T subject leader visits classes to observe teaching and learning in the subject.
- ✓ staff training will take place where teachers work together collaboratively to assess D&T involvement and teaching in school.

## Health and Safety

See CLEAPSS risk assessment. Appendix I.

## Parental Involvement :

Parents play a role in the development of D&T skills. We aim to foster a strong home-school partnership and offer support for parents.

Parents are asked to volunteer to lead a cookery club in Key Stage 1 to give pupils the opportunity to develop key skills. The dishes they make link strongly to seasonality e.g. apple crumble in the Autumn Term.

Design and Technology Coordinator  
Mrs. L. Shaw

**Reviewed: March 2024**  
**Review date: March 2025**

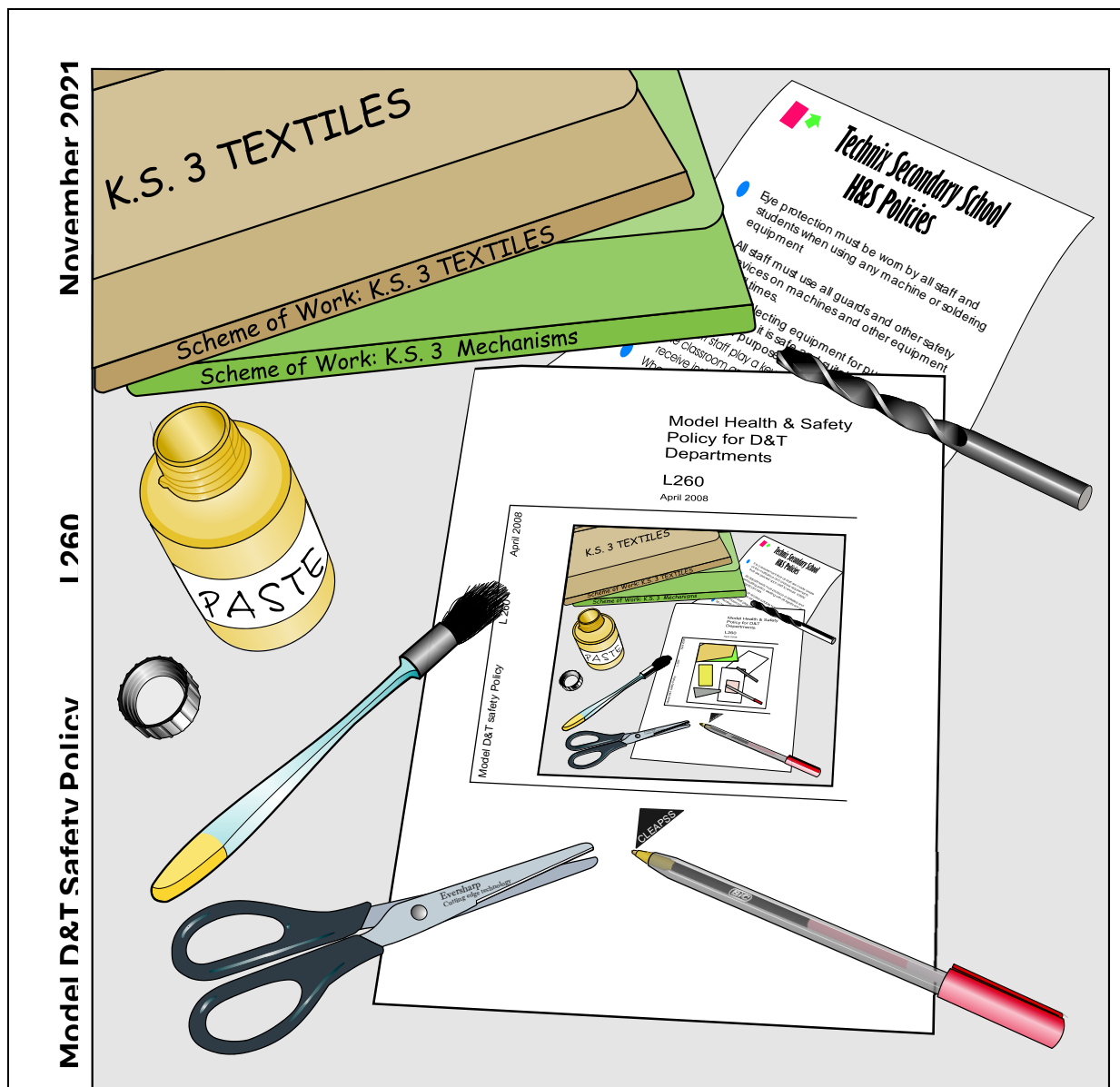
# Appendix I



## Model Health & Safety Policy for D&T Departments

L260

November 2021





**Model Health & Safety Policy for Design and Technology Departments**  
**CLEAPSS Guide L260**  
**November 2021**

## CONTENTS

|  | Page                                |
|--|-------------------------------------|
| Introduction.....                              | 1                                   |
| Instructions for using this model policy ..... | <b>Error! Bookmark not defined.</b> |
| Summary guidelines for staff.....              | 1                                   |
| 1. The role of this policy.....                | 3                                   |
| 2. General aims .....                          | 3                                   |
| 3. Health and safety roles.....                | 3                                   |
| 4. Training policy.....                        | 4                                   |
| 5. Risk assessments.....                       | 5                                   |
| 6. Equipment and resources.....                | 6                                   |
| 7. Activities and procedures .....             | 7                                   |
| 8. Emergency procedures .....                  | 8                                   |
| 9. Rules for students in teaching rooms.....   | 9                                   |
| 10. Staff roles and emergency contacts.....    | 11                                  |

**Strictly confidential - Circulation to  
Members and Associates only**

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CLEAPSS®

## **MODEL HEALTH & SAFETY POLICY for DESIGN AND TECHNOLOGY DEPARTMENTS**

### **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 design and technology, with particular risks. This document is intended to help a school design and technology 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.*

### **Summary guidelines for staff**

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

1. Teachers, trainee teachers, technicians and teaching assistants 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 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 workshop rules, eg, over the wearing of eye protection and other personal protective equipment.
3. Staff must be familiar with emergency procedures and with the location in each D&T room of: the escape route; fire-fighting equipment; [the water tap with tubing for eye washing] / [eye wash station]; the main shut off valves for gas and water (where they exist); the main electricity switch and the nearest first aid kit. (where provided)
4. Design and technology rooms 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, the mains gas and electrical supplies in workshops should be completely turned off at the end of each school day, or after the end of the last lesson of the day. In food technology rooms this may not be practicable, but all rooms should still be left in a safe condition.
5. Eating and drinking should not take place in workshops and workshop storage areas or preparation rooms unless an area in which it is safe to do so has been created. Pupils should not be allowed to drink from water bottles.
6. When alone in the D&T department, staff should do nothing which could lead to an accident requiring remedial measures. The teacher or technician must assess risks carefully before doing practical work or using hazardous machines.
7. Pupils must not be left unsupervised in any D&T room at any time.
8. All D&T teaching rooms, preparation rooms and stores must be locked by staff when not in use. [Special arrangements must be made if access is required to a fire-escape route.] Pupils must never be allowed into preparation rooms [unless 100% supervision can be guaranteed]. [D&T rooms must only be used by teachers who are not D&T specialists for teaching or registration after they have received special training] / [or if the rooms have been specially cleared] [and power to machines switched off.] D&T rooms must be available for teacher-supervised extra curricular activities only by special arrangement.

## **Teachers**

1. At the beginning of the school year, teachers must make sure that their classes have copies of the student rules for working in D&T rooms [see section 10]. The rules should be explained to the students and they should have a copy for their own use.
2. Teachers must enforce the student rules for working in D&T rooms, 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. Technicians must be given adequate time to prepare materials and equipment safely. Time should be allowed for consulting more-senior colleagues where there is any doubt and to try out tasks, 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.
4. Examination course work, especially at post 16 level, must be organised to allow the teacher to assess any risks and identify precautions before any hazards are met / practical work begins. Students should be taught and encouraged to consult relevant risk assessments, where appropriate, but it is the teacher's responsibility to ensure that subsequent practice is always safe.
5. If, because of large class size or indiscipline, health and safety cannot be maintained during practical work, the work should be modified or abandoned. This decision should be reported to the [Head of Department] / [D&T coordinator] / [subject specialist].
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 D&T 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. Teachers should ensure that students have been adequately trained to use D&T equipment and a record kept of this training (eg in the teacher's mark book, folder or database or by giving the pupils a certificate of achievement. The CLEAPSS Health and Safety Passport (available from the CLEAPSS website) is one way to do this.

**DESIGN and TECHNOLOGY DEPARTMENT HEALTH & SAFETY POLICY**

11-03-24

**1. The role of this policy**

This *Design and Technology Department Health & Safety Policy* should be read in conjunction with the employer's general Health & Safety Policy and [where separate] the detailed arrangements for implementing that policy in this school. The purpose of this document is to record the arrangements made in the design and technology department to implement the policy [in accordance with the *Code of Practice or Guidance* issued by the employer].

This document is maintained by the design and technology department. It is copied to all new members of staff, ie, teachers, trainee teachers, technicians, teaching assistants, etc working in the department. [Staff are expected to sign the list kept in the health and safety records to show that they have received a copy.] A reference copy, together with various appendices, is kept in shared area 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 design and technology 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**

Design and technology teaching has an excellent health & safety record. This department is keen to promote practical work as an essential component of good design and technology teaching and 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 D&T staff, ie, [teachers] / [lecturers], trainee teachers, technicians, teaching assistants and other support staff (eg, special needs and bilingual staff) and staff who work in the department occasionally:

- 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.

**3. Health and safety roles**

**3.1 Duties, functions and tasks**

The employer, Castlecroft Primary 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 Head Teacher. Within the D&T department, this task is further delegated to the D&T Coordinator who has the particular function of maintaining this policy document.

The next major review of this policy will take place before March 2025 / This policy is reviewed annually during the Spring term.

### 3.2 Communications

It is acknowledged that communication of health & safety information is of the greatest importance and is the task of the D&T Coordinator. See section 10 for the names of staff members with these health and safety functions.

In this department, all staff are issued with a copy of this policy which they should keep in their classrooms.

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 D&T department to monitor the implementation of this policy and the employer's *Code of Practice for Design and Technology*. Records of monitoring are kept by the D&T Coordinator.

Checklists on equipment and machines for annual are customised from those suggested in CLEAPSS Guide L254 *Health and Safety Maintenance of D&T Workshop Equipment*. Records of the checks are kept by the D&T Coordinator.

## 4. Training policy

The person with the task of seeing that training is provided is the D&T Coordinator.

Generally, this department follows guidance in *BS 4163:2021 Health and safety for design and technology in schools and similar establishments – Code of practice* in respect of the training needs of staff. Staff may not use any item of equipment or machine if they have not received formal training to do so. Nothing less than documented evidence of training, such as a certificate of attendance at a training course will be accepted as evidence of training. Staff should update their competences every five years.

Trainee teachers who are following a recognised teacher training course should be supervised by a qualified teacher at all times when they are engaged in practical work. This also applies to people following a Graduate or Registered Teacher programme. Such trainees may use machines and may show pupils how to use machines as part of the lessons that they are teaching provided that appropriate supervision is maintained. This supervision may be progressively reduced, depending on the competence of the individual trainee teacher. In such instances a specific risk assessment of the situation should be carried out, and the degree of supervision needed discussed with the head of D&T.

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 | The person in charge of each course |
| Health and safety of trainees on teaching practice                                     | The person in charge of each course |

|  |                                     |
|--|-------------------------------------|
| Induction of newly-appointed technicians   | The person in charge of each course |
| Immediate remedial measures and other emergency procedures                       | The person in charge of each course |
| Health & safety training of non-D&T support staff                                | The person in charge of each course |
| [Health and safety of non-D&T teachers using specialist D&T rooms]               | NA                                  |
| Manual handling for all relevant staff   | The person in charge of each course |
| Healthy and safe procedures for cleaners working in D&T rooms                    | The head teacher                    |
| Regular update training (covering new or changed regulations, new equipment etc) | The D&T Coordinator                 |

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

## 5. Risk assessments

Every employer is required under various regulations<sup>1</sup> to supply employees with a risk assessment before any hazardous activity takes place. (Common hazardous activities carried out in D&T 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 design and technology, this employer follows the recommendation of the Health and Safety Commission to adopt published ‘model’ or ‘general’ risk assessments which school D&T 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<sup>2</sup> publications generally]

[CLEAPSS, *Model Risk Assessment for Design and Technology in Schools and Colleges*]

[CLEAPSS, *G235: Managing Risk Assessment in Design and Technology*]

[BSI *BS 4163:2021 Health and safety for design and technology in schools and similar establishments – Code of Practice*]

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, ie, the scheme of work

See section 10 for the member of staff with the task of overseeing this process<sup>3</sup>.

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.

<sup>1</sup> Risk assessments are required by the *Control of Substances Hazardous to Health (COSHH) Regulations*, the *Management of Health & Safety at Work Regulations*, the *Dangerous Substances and Explosive Atmospheres Regulations (DSEAR)* and others.

<sup>2</sup> Most relevant CLEAPSS publications for secondary schools are on the *CLEAPSS web site*..

<sup>3</sup> See CLEAPSS guide G235, *Managing Risk Assessment in Design and Technology* on the CLEAPSS web site.

- Details of the room to be used, ie, 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.

**Since the DT co-ordinator has been checked against the model risk assessments, staff should deviate from it only if their proposed activities have been [also checked with the models] / [agreed with the Head of D&T] / [agreed with the Head of Subject] / [agreed with the D&T Coordinator]. We encourage the development of new practical activities (including on open evenings, at D&T extra-curricular activities, 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.

## **6. Equipment and resources**

### **6.1 Local exhaust ventilation**

The *COSHH Regulations* require the regular testing of local exhaust ventilation equipment (dust extraction and fume extraction from heat treatment areas) every 14 months. Testing normally takes place each year. The head teacher and caretaker have the function of seeing that this happens. 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*]

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

### **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 teacher and caretaker have the function of seeing that this happens. Testing normally takes place each year.

Completed schedules are kept in the *Safety Check File* / a ring binder] / [kept in SMT 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 equipment that is subject to arduous use. Such equipment includes soldering irons, portable mains powered tools and the leads and foot controls of sewing machines.

### **6.3 Pressure vessels NA in school**

Air receivers of air compressors, pressure cookers and model steam engines need periodic inspection under the *Pressure Systems Safety Regulations*. Inspection normally takes place each year.

## **6.4 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 CLEAPPS through publications and directly.

Any user who discovers a hazardous defect in an item of equipment must report it, both verbally and in writing to the D&T Coordinator

## **6.5 Use of guards**

All staff in the department must use all guards and other safety devices on machines and other equipment at all times. Under no circumstances should any guard or other safety device be removed or not used to enable a task to be done. Any operation which cannot be done with guards and other safety devices in place must not be done.

## **6.6 Personal protective equipment**

The employer accepts the duty to provide eye protection, gloves, overalls and aprons for employees where the risk assessment requires them (*Personal Protective Equipment at Work Regulations*). Eye protection must be worn by all staff and students when using any machine or when soldering using soldering irons. Eye protection should be used for any other operation where the risk assessment shows it is required. Prescription safety spectacles are to be ordered from and the employer will meet the extra cost of the safety features. Overall coats and aprons are and laundered by the school.

The employer expects eye protection to be available for pupils and visitors. Safety spectacles are provided for general use, with a set of goggles or face shields used whenever the risk assessment requires them.

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

## **6.7 Waste disposal**

Waste chemicals and equipment are disposed of in an environmentally-responsible manner in accordance with relevant legislation. Chemical disposal follows guidance on the relevant risk assessments. Whenever there is any doubt on waste disposal we consult CLEAPSS.

## **7. Activities and procedures**

### **7.1 Outdoor activities**

When planning any visits or trips etc, staff consult one or more of the following the DfES *Health and safety of pupils on educational visits* and supplementary guidance

### **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 headteacher/



We will endeavour to keep the fire door closed as much as possible by removing the prop as soon as practicable.

Occasional (ie, one-off) manual-handling operations will be assessed by the staff member(s) before attempting them. Problems will be reported to the headteacher. See section 10 for the names of the staff members currently with these functions. 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 stools or benches.] Where technicians are required to carry out work that involves working at heights, the person setting the task should carry out a relevant risk assessment. The employer's guidelines on working at heights should be followed.

### **7.3 Security**

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

Any non-D&T staff who have to supervise any class in a D&T room will receive brief training in the department's safety rules.

### **7.4 Concern for others**

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

### **7.5 Maintenance of equipment**

When maintenance of equipment is carried out, all staff follow the guidelines contained in the CLEAPSS document L254 *Health and Safety Maintenance of D&T Workshop Equipment*. In particular machines must be isolated from the power supply and the fuses removed or the isolator locked off. A notice stating that the machine is under maintenance should be fixed to the machine. A risk assessment of the hazards involved in the task should be carried out before the work is started.

## **8. Emergency procedures**

### **8.1 Fire**

D&T staff will follow the normal school procedures in case of major fires. All D&T staff are trained to deal with minor fires that may occur when food is cooked or heat treatment areas are in use. This training is supported by regular drills arranged by the head teacher. See section 10 for the name of the staff member currently with this function.

## 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. Spill kits are kept in SMT. 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 head teacher. See section 4 for the name of the staff member currently with this function.

## 8.3 Injury

D&T staff will follow the normal school procedures in cases that require first aid. D&T staff are trained to carry out immediate remedial measures while waiting for first aiders, after accidents which occur in design and technology. [Instructions for immediate remedial measures are posted on the walls of all D&T teaching and prep rooms.]

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 head teacher as quickly as possible.

Dangerous situations and incidents which might have resulted in injury ('near-misses') should be reported to the head teacher. These will be analysed and discussed at departmental meetings.

## 9. Design and technology room rules for students

The rules for students during D&T lessons are as follows.

### Rules for Working in Design & Technology Rooms

The biggest danger in the D&T room 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, spillage or breakage to your teacher.

1. Only enter a D&T room when told to do so by a teacher. Never rush about or throw things in a D&T room. Keep your work area and floor area clear, with bags and coats well out of the way.
2. Follow instructions precisely; only touch or use tools, equipment, machines and materials when told to do so by a teacher; never remove anything from any D&T room without permission.
3. Wear eye protection when told to do so and keep it on until you have finished the work that needs the eye protection.
4. When using naked flames (eg, gas torches in workshops, gas cookers in food rooms), make sure that ties, hair, baggy clothing etc are tied back or tucked away.

5. Always stand up when doing practical work in food technology or in workshops so you can quickly move out of the way if you need to.
6. Always wash your hands carefully before starting work in food technology and after the end of lessons in all areas.
8. If you are scalded, burnt or a chemical splashes on your skin, wash the affected part at once with lots of water. Tell your teacher. Also report any cuts or abrasions.
10. Report all spillage of any substance to your teacher.

## 10. Staff roles and Emergency contacts

### Staff roles

|  |                                      |
|--|--------------------------------------|
| Staff roles and/or emergency contacts updated on: ..... .            |                                      |
| Advice on health & safety and all aspects of practical D&T generally | CLEAPSS <b>Helpline</b> 01895 251496 |
| Advice on all aspects of practical D&T                               | D&T Association 01789 470007         |

### Emergency contacts

|  |                                      |
|--|--------------------------------------|
| Emergency advice                             | CLEAPSS <b>Helpline</b> 01895 251496 |
| <i>Serious accident:</i> Ambulance service   | [999] / [111]                        |
| <i>Serious accident:</i> School first-aiders | See school list in SMT               |