



Lockington C of E  
Primary School

Design  
Technology  
Policy

# Lockington CE VC Primary School



## Design and Technology Policy

### **1 Aims and objectives**

1.1 Design and Technology (DT) plays a part in all of our lives. With constant advances in technology across the world it is increasingly important for children to have a good understanding of design and the processes involved in producing a quality product.

#### **1.2 Our objectives in the teaching of Design and Technology are to:**

- to develop the creative, technical and practical expertise need to perform everyday tasks confidently and to participate successfully in an increasingly technological world.
- to build and apply a repertoire of knowledge, understanding and skills in order to design and make high – quality prototypes and products for a wide range of users.
- to critique, evaluate and test their ideas and products and the work of others.
- To understand and apply the principles of nutrition and learn how to cook.
- to create an interest and enthusiasm for designing and making in children of all abilities and ages.
- to provide a developmental range of activities to increase the children’s capability and confidence in their own ideas.
- to help children gain an understanding of the ways in which people from the past and present have used design and technology to meet their needs and how this is relevant to them.
- to help the children to become increasingly proficient across the range of media used.

### **2 Teaching and learning style**

2.1 At our school, we make design and technology an enjoyable learning experience. We encourage children to contribute to all aspects of the designing and making process. We recognise that in all classes, children have a wide range of abilities and so we seek to provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this in a variety of ways:

- setting tasks which are open – ended and can have a variety of responses;
- setting tasks of increasing difficulty;
- sometimes grouping children by ability and setting different tasks to each ability group;
- providing resources of different complexity, depending on the ability of the child;
- using classroom assistants to support the work of individuals or groups of children;
- providing where possible specialist support when individual have particular gifts or talents.

### **3 Design and Technology Curriculum Planning**

3.1 Design and technology is a foundation subject in the National Curriculum. Our school uses the national programmes of study for DT as the basis for its curriculum planning. Plans are designed so that the topics that the children study build upon prior learning. While there are opportunities for children of all abilities to develop their skills and knowledge in each teaching unit, the progression planned into the scheme of work means that the children are increasingly challenged as they move through the school. This progression has three aspects:

- increasing breadth and range of DT experiences;
- increasing challenge and difficulty in DT activities;
- increasing confidence and creativity in the children's DT making;

- 3.2 We carry out the curriculum planning in DT in three phases (long term, medium term and short term). The long term maps the topics studied in each term during the key stage. Where possible the design and technology topics are linked in with the main topic or theme for that half term in order to enable teachers to profit from links with the rest of the curriculum. However, the design and technology time is not used falsely in order to make models for other subjects. Should the links with other subjects not enable the proper aims and objectives of DT be met then the subject will stand alone.
- 3.3 The medium term plans give details of each unit of work for each term. The subject leader is responsible for keeping and reviewing these plans. These are stored on the staff drive on the server. As we have some mixed-age classes, we do the medium-term planning on a two-year rotation cycle in key stage 1 and a 4 year rotation cycle in key stage 2. This way, we ensure that children have complete coverage of the National Curriculum, but do not have to repeat topics.
- 3.4 The class teacher writes the short term lesson plans, which list the specific learning objectives and expected outcomes for each lesson. The class teacher is responsible for keeping these individual plans, and the class teacher and subject leader often discuss them on an informal basis.
- 3.5 Within the term the teachers decide how to best apportion the time allocation for DT. It can be done as a block, which may mean a very intense but productive fortnight of technology, with every afternoon possibly being devoted to the subject. In addition it is permissible for teachers to have full D&T days. This really allows the pupils to get to grips with a project. It is a way of maximising time and not wasting time having to set up and pack up at frequent intervals.

#### **4 Early Years Foundation Stage**

- 4.1 The children in the Foundation stage are exposed to elements of design and technology on a daily basis through their on going provision.

Examples are:

- Table/Floor construction kits.
- Sand and water play.
- Large construction equipment.
- Play – dough.

In addition the children are engaged in specific projects such as designing and making articles linked to a specific theme. These young children should also be exposed to 'disassembly' as described above. Role play also plays an important part in developing a context for the appreciation of the designs and processes in the world around the children. Food technology is a key area of the Foundation Stage DT programme. This is a much enjoyed and very successful area in which the pupils can work within the DT Curriculum.

## **5 The contribution of Design and Technology teaching in other curriculum areas**

### **5.1 English**

DT contributes significantly to the teaching of English in our school by actively promoting the skills of reading, writing, speaking and listening. They use reference books, and develop research skills, when finding out about the history of a product and working mechanisms. DT is also used to stimulate discussion and writing. Children design and label their ideas and explain in writing what they need to do. Written evaluations are normally produced at the end of a topic. Through working with others children develop their ability to communicate ideas effectively.

### **5.2 Mathematics**

The teaching of DT contributes to children's mathematical understanding in a variety of ways. Children use different measuring equipment to measure out pieces needed for the designs and models. A range of calculations are often needed to solve problems too.

### **5.3 Social, Moral, Spiritual and Cultural**

DT contributes significantly to the teaching of PSHE and citizenship. Through the common goal of making things, children learn to work effectively with other people, and to build up good relationships.

### **5.4 Computing, Design and Technology**

Computing enhances the teaching of DT, where appropriate, in all key stages. Children use computer programs to design and enhance their research skills, whether through the Internet or on CD-ROMs. They also use computing to improve the presentation of their work.

## **6 Inclusion, Equality and Design and Technology**

6.1 At our school, we teach DT to all children, whatever their ability and individual needs. DT forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our DT teaching, we provide learning opportunities that enable all pupils to make good progress. We strive hard to meet the needs of those pupils with special educational needs, those with disabilities, those with special gifts and talents, and those learning English as an additional language, and we take all reasonable steps to achieve this. (For further details, see separate policies on Special Educational Needs and Disabilities and Gifted and Talented Children.)

6.2 When progress falls significantly outside the expected range, the child may have special educational needs. Our assessment process looks at a range of factors – classroom organisation, teaching materials, teaching style, and differentiation – so that we can take some additional or different action to enable the child to learn more effectively. Assessment against the National Curriculum criteria allows us to consider each child's attainment and progress against expected levels. This helps to ensure that our teaching is matched to the child's needs.

6.3 DT may contribute towards meeting targets set out in a child's Individual Education Plan (IEP). Teachers will have regard to these when planning and designing tasks for lessons in DT.

6.4 We enable pupils to have access to the full range of activities involved in DT. Where children are to participate in activities outside the classroom, we carry out a risk assessment prior to the activity, to ensure that the activity is safe and appropriate for all pupils.

## **7 Organisation Process**

7.1 The decision making process involved as teachers prepare to implement a DT module is as follows:

1. Does the DT project involve the three types of DT activity? (Investigate, disassembly and evaluate, focused practical tasks and design and make assignment)
2. How and when is the DT module to be blocked?
3. Which resources are required? Are any extra resources required? Approach co-ordinator if necessary to arrange ordering these.
4. Do colleagues feel insecure about a particular project or require support in a particular element of it? Seek advice from the co-ordinator.
5. Are any extra adults required to support the lessons, especially if there are potentially hazardous activities (e.g. hot glue guns, sharp knives)
6. What needs to be gathered to enable children to evaluate and disassemble related products? (Disassemble can be an evaluation of a product without its destruction!)
7. Which skills need to be taught/revised before the children can begin making e.g. use of hack saw and bench hook.
8. Are children to be working as individuals, in pairs or small groups? There is a need for all these during a two year cycle.
9. What are the essential rules of the classroom when hazardous activities are being tackled?

## 7.2 Specialist teaching

Class teachers are expected to teach their own DT lessons. However, as indicated in 7.1 the help of the DT co-ordinator can be used to support and if necessary work alongside colleagues.

## 8 Health and Safety Issues

- 8.1
1. Lessons must be safe (see The Use of Tools in connection with Technology)
  2. Children must never use a tool until they have been taught how to use it and proved that they can use it properly.
  3. Children should appreciate the properties of the materials they are handling and any dangers associated with them.

### Food

1. Particular care should be taken when handling food.
2. Every lesson must start with a review of do's and don'ts with food. All children must wash their hands. This should be witnessed if there is any doubt.
3. All equipment should be washed before and after use.
4. Equipment specifically purchased for food technology must be used and not from the staff or school kitchen.
5. Any child seen to put their fingers in their mouth or any unclean place must wash them immediately.
6. All other equipment and clothing must be moved away from the work surface.
7. Children should do everything for themselves – except near an oven. This includes weighing, measuring, mixing and cutting. Use of knives must be supervised by an adult.

8. All surfaces must be cleaned thoroughly.
9. Ingredients must be stored appropriately.
10. Children must not use ovens.
11. Ovens must be cordoned off.
12. Baking should be consumed on the day or sent home that night.
13. All ovens should be cleaned after each use.

## **8.2 Health and Safety Staff**

Health and safety co-ordinator is the Head Teacher. All staff have first aid training.

## **9 Other priorities of the Design and Technology Process**

- 9.1
1. Children should know the range of materials available to them before they start.
  2. Everyone must appreciate that quality is expected at every stage.
  3. Designing, drawing, modelling and making the final product are all important and should receive a quality input and response from the teacher and pupil.
  4. Evaluation of every stage of the process is vital and pupils must accept as normal the need to continually seek improvements.
  5. Display of finished products should celebrate the whole process.

## **10 Special Educational Needs and Disabilities and Gifted and Talented**

### **10.1** The SEN Policy expects that there will be appropriate differentiation for pupils in DT.

Teachers should ensure that a special need in reading and writing for example does not hinder a child's performance in DT. Such children should have the necessary support to give the child a level of independence equitable with their peers.

Teachers should also be aware that children who do not have special needs do sometimes have special needs in DT and this can come as a shock to pupils and produce unsatisfactory attitudes to their work. Strategies need to be prepared to ensure that these needs are met. There will also be pupils who have particular gifts for DT. Staff must be aware and enable such pupils to extend and to put greater demands on such pupils.

When planning a differentiated DT project particularly with children with special educational needs in mind teachers could think about:

1. Could the child/children work on shorter more focused assignments rather than longer open tasks as shorter tasks provide small elements of success, rewarding and motivating children regularly.
2. Adapt the activity so they are using contexts they are more familiar with.
3. It may be more appropriate for the pupil/s to adapt or make improvements, or add a new feature to a design of a product rather than invent a whole new product.
4. Could they design a product where they are given alternative solutions?
5. Could they manage a project where certain aspects are restricted?

### **10.2 Gifted and Talented**

For our gifted and talented pupils we will expect:

- Teachers to provide teaching and learning experiences that encourage pupils to think creatively, explore and develop ideas, and try different approaches. Pupils should be encouraged to set their own questions, offer ideas, suggest solutions

or explanations, and reflect on what they have heard, seen or done in order to clarify their thoughts.

- Greater independence in working, e.g. a pupil to be able to carry out their own DT enquiries.
- Provide real-life research and presentation opportunities.
- Avoid giving gifted pupils additional writing tasks and encourage them instead to communicate their understanding in a variety of ways, giving them responsibility for choosing and evaluating the most appropriate method.
- Provide opportunities within DT for pupils to develop their skills in other areas, such as intrapersonal skills (for example, opportunities to use initiative). These opportunities also relate to the key skills of working with others and improving own learning and performance.

## **11 Assessment**

- 11.1 Assessment is carried out in line with the School Assessment Policy. Children demonstrate their ability in DT in a variety of different ways and Teachers will assess children's work in DT by making informal judgements as they observe them during lessons. On completion of a project, the teacher assesses the work and gives oral and written feedback, as necessary, to inform future progress. Older pupils are encouraged to make judgements about how they can improve their own work.

At the end of a unit of work, the teacher makes a summary judgement about the work of each pupil in relation to the National Curriculum age related expectations and records these on the school tracking system Classroom Monitor. We use this as the basis for assessing the progress of the child, and we pass this information on to the next teacher at the end of the year.

The DT subject leader keeps photographs of children's work in a portfolio, which is used to demonstrate the expected level of achievement in DT for each age group in the school.

## **12 Resources**

- 12.1 Resources are stored in a central store in the hall. Staff must make sure they inform the Co-ordinator of anything they need in advance to ensure it is available for their unit of work.

- 13 The Governing Body** determines, supports, monitors and reviews the school art policy.

**The Headteacher's role** is to:

- provide support by encouraging staff and praising good practice;
- monitor learning and teaching through lesson observations;
- monitor planning and reviews;
- give feedback to teachers following lesson observations;
- support staff development through in service training and provision of resources;
- observe colleagues with a view to identifying the support they need.

- 13.2 **The DT Co-ordinator's role** is to:

- provide a strategic lead and direction for art in the school;
- provide support and advice to staff in the delivery of the DT programme of study;
- remain informed about current developments in the subject by attending CPD sessions and being involved in independent research and reading;
- deliver CPD sessions to staff, to support staff development and lead by example by setting high standards in their own teaching;

- liaise with other members of staff to form a coherent and progressive scheme of work;
- monitor standards in the subject, through planning and work scrutiny, statistics, quality of teaching and pupil;
- consider with staff and work with the headteacher in the evaluation and planning of actions included within the School Development Plan;
- take responsibility for the choice, purchase and organisation of central resources for DT, in consultation with colleagues.

Monitoring the standards of children's work and the quality of teaching in DT is the responsibility of the DT subject leader along with the headteacher.

The co-ordinator will be responsible to the headteacher and will liaise with the named linked governors.

**13.3 The Classteacher's role** is to;

- be responsible for the teaching of DT as set out in the policy;
- provide planning and reviews for the Headteacher and DT co-ordinator to have access to;
- provide samples of DT work when required;
- assess children's work in order to detail future planning;
- update skills, knowledge and understanding of DT;
- identify inset needs in DT and take advantage of training opportunities;
- keep appropriate on-going records in relation to school policy.

**14 Review**

14.1 The quality of teaching and learning in DT is monitored and evaluated by the headteacher as part of the school's agreed cycle of monitoring and evaluation.

This policy will be reviewed in March 2021.

**Date:** March 2018

**Signed** \_\_\_\_\_ **(Chair of Governors)**

**Signed** \_\_\_\_\_ **(Headteacher)**

**Date:**

