

Design and Technology Policy

Rationale

Design and technology is a practical subject. It is concerned with developing creative skills through the process of generating ideas, designing, making and evaluating in a critical way. It requires a capacity for innovation and the ability to create solutions to problems.

Aims

The delivery of Design and Technology is based on the statutory entitlement laid down in the National Curriculum orders. The programmes of study set out what is to be taught and offers children opportunities to:

1. develop their designing and making skills;
2. develop knowledge and understanding;
3. develop their ability to use their designing and making skills to create high quality products;
4. demonstrate innovation and creativity in their practical work;
5. develop an understanding of technological processes, products and their manufacture and their place in society;
6. make home/school links to further their skills and enjoyment of DT;

Content

In Design and Technology children acquire and apply knowledge and understanding of:

Materials and components;
structures;
existing products,
quality,
health and safety

Design and technology contributes to the development of other curriculum areas – art, mathematics, language and literacy, science and ICT – as follows:

1. language skills are developed through questioning, describing, explaining and presenting their own ideas and those of others;
2. children acquire a new technical vocabulary and become increasingly fluent in its use;
3. non-fiction texts are used for reference;
4. drawing skills are developed, eg. sketching and final drawing, and art skills are applied when investigating texture and colour;
5. ICT is used to gather information and data;
6. scientific skills are used, eg. predicting and fair testing;
7. mathematical skills are applied in measuring, interpreting bar charts, tables and graphs and in producing their own;
8. children develop practical skills and gain competence in using tools and handling materials;

Progression and Expectations

Foundation Stage

In the Foundation Stage children need to learn about their local environment and the diverse world in which they live. They need opportunities to develop skills such as cutting, folding, mixing, joining and building. Many of these skills will need to be taught but as soon as possible children should be given the opportunity, tools and materials to make things using their own ideas. Practitioners in the FS stage need to be particularly vigilant as regards Health and safety issues as young children may have limited awareness of potential dangers. Children also need opportunities to investigate and good quality construction kits should be made available.

It is very important for children to be encouraged to talk about what they have made and ask questions. New vocabulary should be introduced.

These early experiences are very important and underpin future learning. As children progress they should gain increased knowledge and understanding. They should move from familiar to unfamiliar concepts. They should tackle increasingly challenging tasks.

Key stage 1

By the end of Key Stage 1 most children will be able to:

- use a range of materials to design and make simple products;
- select materials, tools and techniques and explain their choices;
- understand simple mechanisms and structures;
- measure, assemble, join and combine materials in a variety of ways using basic tools safely;
- investigate and evaluate simple products, commenting on the main features

Key stage 2

By the end of Key stage 2 most children will be able to:

- use knowledge and understanding of a range of materials, components and techniques to design and make quality products;
- evaluate work as it develops and, if necessary, suggest alternatives;
- produce designs and plans which list the stages involved in making a product, and list tools and materials used;
- accurately measure, mark, cut, join and combine a variety of materials, working safely and recognising potential hazards;
- understand the use of electrical and mechanical systems and more complex structures;
- evaluate what is or what is not working well in a product.

Inclusion

In planning and teaching Design and technology teachers will have due regard for the following principles:

- a. setting suitable learning challenges
- b. responding to pupils' diverse learning needs
- c. overcoming potential barriers to learning and assessment for individuals and groups of pupils

Schemes of work

The Design and Technology curriculum will be delivered using the QCA schemes of work. The long term plan for D & T is set out in the school's "Curriculum Map". Where possible it is linked to other areas of the curriculum. Medium term planning consists of the unit plans and these are then used by the class teacher to create the short term plan. Teachers should allow themselves flexibility as long as alternative activities/lessons are in keeping with the expectations outlined in each unit. Each unit makes reference to prior learning, vocabulary and resources.

Assessment

- Each child needs to be assessed at the end of each unit.
- Teachers should keep a piece of evidence of what most children can achieve, ie. one average child's work. It can be a photo or a sample to be kept in each unit in a class portfolio.
- Assessments are then used by the teacher to judge the attainment of the child against the level description which best fits the pupil's overall achievement at the end of the year in both key stage 1 and 2.
- In the Foundation Stage Design and Technology comes under the area of learning of "Knowledge and understanding of the world." Nursery practitioners track the children's progress and pass this information to the Reception teacher at the end of the year.
- In Reception class children tracked using the EYFSP (Early Years Foundation Stage Profile). This needs to be submitted as a statutory requirement.
- In key stage 1 and 2 bar charts are produced at the end of the year showing progress based on on-going assessments.

Health and Safety

The class teacher will be responsible for the health and safety of themselves, classroom assistants and pupils within their class. Pupils will be taught to:

- Collect and return tools and equipment safely
- Follow clear instructions
- Only move around the class when necessary
- Wear safety equipment whenever necessary

Resources

Materials and equipment are kept in either the downstairs cupboard (opposite Year 1 and 2) or on the trolley upstairs in the "Maths" Cupboard. Cooking equipment is kept in the Staff Room. The co-ordinator will be responsible for ordering material and equipment. Resources are ordered to requirements. Staff need to inform the co-ordinator when materials are needed. Resources must be replaced in a clean and tidy way.

Conclusion

- The co-ordinator will monitor the Design and Technology curriculum and ensure the implementation of the school policy.
- Teachers will be supported in delivering the curriculum.
- Peer observations will be carried out as a means of monitoring.
- The co-ordinator will advise on INSET and training.