

Tunbury Primary School

Design and Technology Policy

Introduction

At Tunbury Primary School, children learn to produce practical solutions to real problems.

Design and Technology prepares children to take part in the development of tomorrow's rapidly changing world. Creative thinking encourages children to make positive changes to their quality of life. This subject encourages children to become autonomous and creative problem-solvers, both as individuals and as part of a team. It enables them to identify needs and opportunities and to respond by developing ideas and eventually making products and systems. Through the study of Design and Technology they combine practical skills with an understanding of aesthetic, social and environmental issues, as well as functions and industrial practices. This allows them to reflect on and evaluate present and past design and technology, its uses and its impacts. Design and Technology helps all children to become discriminating and informed consumers and potential innovators.

Teaching and Learning

We teach Design and Technology to:

- Develop imaginative thinking in children while also enabling them to talk about what they like and dislike when designing and making.
- Enable children to investigate, explore and talk about how things work, and based on what they discover to draw and create their own ideas.
- Encourage children to select and safely use appropriate tools and techniques for making a product.
- Explore and discover differing attitudes towards the manufactured world and how we live and work within it.
- Develop an understanding of technological processes, products and their manufacture, together with their contribution to society.

Strategies for teaching Design and Technology:

At Tunbury, all children undertake Design and Technology. Sometimes work may be blocked within a week rather than being completed over regular weekly sessions and may form part of a cross-curricula week. Design and Technology lessons involve a combination of whole class, group and individual teaching. The learning opportunities can be divided into three main areas.

1. Investigative, disassembly and evaluative activities (IDEAs)

These activities provide opportunities for the children to explore existing products and to gain skills, knowledge and understanding which can be applied in a design and make assignment.

2. Focused practical tasks (FPTs)

Focused practical tasks provide opportunities to learn and practice particular skills and knowledge in order that products can be well-made.

3. Design and make assignments (DMAs)

A design and make assignment provides an opportunity for the children to combine their skills, knowledge and understanding to develop products that meet a real need. Drawings will be annotated; the completed design will be finished to a high standard. The product will be evaluated against the design criteria.

When teaching Design and Technology we:

- Always explain what we want pupils to know, understand and be able to do through the Design and Technology they are about to complete.
- Use a key question to direct pupils' thinking.
- Vary the resources, activities and experiences to meet the needs of each individual pupil, making sure they are effective in finding out about how things work.
- Encourage pupils to design and make their own models, products and inventions.
- Start the unit with a problem that relates to real life and finish with lesson plenaries to ensure pupils fully understand what they are learning, how they learn and how well they are progressing.

Cross-curricular Links

Through Design and Technology, we can also:

- Improve skills in English, Maths, Science, Art and other related curriculum areas.
- Develop thinking skills.
- Nurture resilience, perseverance and a positive mind-set.
- Promote awareness and understanding of gender, cultural, spiritual and moral issues.
- Develop pupils as active citizens.

Planning of Design and Technology:

Design and Technology is planned for in year group teams and is cross curricular where appropriate. Termly planning follows the long term overview for the year group and ensures that the 'Focus Key Assessment Criteria: Being a designer', is covered within the planning. Short term planning is kept in teacher's planning folders, with annotations to identify pupil attainment in individual lessons. We give children of all abilities the opportunity to develop their skills, knowledge and understanding and we also build planned progression into the activities, so that our children are increasingly challenged as they move through the school.

Assessment

Assessments in Design and Technology are based on teacher observations made throughout each unit, with data added to the school tracking program. To assist in this, the subject leader provides teachers with termly assessment sheets. Pupils' progress is measured against the learning objectives and unit outcome. Work, where appropriate, is recorded in Design and Technology folders or Topic books but evidence will also be photographic and on classroom displays. Children are encouraged to evaluate their own work and describe what they might change if they were to revisit the activity.

Monitoring

The monitoring of the standards of children's work and of the quality of teaching in Design and Technology is the responsibility of the subject leader. The work of the subject leader also involves supporting colleagues in the teaching of the subject, being informed about current developments in Design and Technology, and providing a strategic lead and direction for this subject in our school (closely linking to Focus).

The subject leader will evaluate and monitor the teaching and learning of pupils in the following ways:

- Keeping evidence of the children's work in a portfolio. This demonstrates what the expected level of achievement is in design and technology in each year of the school.
- Observe and assess finished work displayed in the classroom or around school and provide teachers with help and feedback.
- Evaluate the way in which the subject is being taught by observing lessons from each year group.
- Analyse teachers' termly and weekly planning to ensure the end of year expectations are being planned for, are being taught and that the assessments made are informing the next weeks planning.

Health and Safety:

We follow safe procedures for 'Food Safety and Hygiene' as well as for the use of tools and equipment.

Adults always make sure that when children are using higher risk tools they are strictly supervised. Correct use is always modelled and demonstrated; rules for use are shared with the children. High risk tools include cooking equipment, knives, hot glue guns and needles.

When working with tools, equipment and materials, pupils will be taught about:

- Hazards, risks and risk control.
- Recognising hazards, assessing subsequent risks and how to steps to control them.
- Managing their work environment to ensure the health and safety of themselves and others.

Resources:

Lists of resources are kept in the subject leader's file.

Construction materials, tools and equipment are located in the Design and Technology stockroom, where there is also a cupboard containing Textile resources.

Two Food Technology trollies that contain an oven, cooking utensils and a class set of aprons, are available for use within classrooms of each of Key Stage. Three cooking hobs (stored in the school kitchen) are also available for class use. Additional cooking utensils are available, on request, from the school kitchen.

We take every opportunity to develop links with industry, local secondary schools, outside agencies and experts, in order to enrich our Design Technology provision at Tunbury.

Compiled by the Design and Technology subject leader, Michael Hardgrave.