

Alwoodley Primary School

Design and Technology Policy

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1. Aims and Objectives

The National Curriculum for Design and Technology aims to ensure that all pupils:

- Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world.
- 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
- Critique, evaluate and test their ideas and products and the work of others
- Understand and apply the principles of nutrition and learn how to cook.

2. Teaching and Learning Style

Our School uses a variety of teaching and learning styles in Design and Technology lessons in order to develop children's knowledge, skills and understanding. Teachers provide a practical curriculum which involves children in meaningful activities in which they are required to discuss plan and evaluate their own and other's work in a constructive way. Within lessons, we give children the opportunity to work individually, in pairs and in group situations. Children have the opportunity to use a wide range of materials and resources, including ICT and will be supported to use tools and equipment safely and responsibly.

3. Design and Technology Curriculum Planning

Across all year groups children should be designing and making **Something for Somebody for Some Purpose**. Teachers will use the National Curriculum and progression of skills to plan age appropriate, engaging lessons that ensure designing, making, technical knowledge, evaluation and cooking are taught progressively each year.

To ensure that all aspects of the National Curriculum are covered adequately and taught in sufficient depth, long-term planning includes topics that address food, textiles, structures and mechanisms in KS1 and food, textiles, structures, mechanical systems and electrical systems in KS2. Teachers will ensure that four topics are taught in each year group, including two food

topics. One of these food topics will be a DT project and the other may cover the cooking skills but be related to another curriculum area without a 'design' theme running through. Design Technology is taught separately to Art whilst being aware of the cross overs between the subjects we endeavour to ensure that DT is purposeful and exists for the purpose of others whereas Art has no set process and exists for its own purpose. We produce and refer to the design criteria to think about the end product and to ensure that we are designing and creating a useable product which answers the questions posed by the end user.

4. The Foundation Stage

There are many opportunities for carrying out D&T-related activities in all areas of learning in the EYFS. These build towards the following Early Learning Goals:

ELG: Listening, Attention & Understanding

- ask questions to clarify their understanding

ELG: Speaking

- Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary
- Offer explanations for why things might happen
- Express their ideas and feelings about their experiences using full sentences

ELG: Self- Regulation

- Set and work towards simple goals
- Show and ability to follow instructions involving several ideas or actions

ELG: Managing Self

- Be confident to try new activities and show independence, resilience and perseverance in the face of challenge

ELG: Fine Motor Skills

- Use a range of small tools
- Begin to show accuracy and care when drawing

ELG: Creating with Materials

- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function
- Share their creations, explaining the process they have used

Children within Nursery and Reception will be provided with many, varied opportunities to support their learning within this area. These include:

Constructing: Learning to construct with a purpose in mind, some children use scissors, glue, string and a hole punch to make a bag to store travel brochures they collected during a field trip.

Structure and joins: Following a visit to the local high street, some children make a church tower out of small wooden bricks.

Using a range of tools: children will learn about planning and adapting initial ideas to make them better. For example, a child might choose to use scissors, a stapler, elastic bands and glue to join bits together to make a toy vehicle. But they might then modify their initial idea by using masking tape.

Cooking techniques: Children will practise stirring, mixing, pouring and blending ingredients during cookery activities.

Exploration: Children will dismantle things and learn about how everyday objects work.

Discussion: Children will be given opportunities to discuss reasons that make activities safe or unsafe, for example hygiene, electrical awareness, and appropriate use of senses when tasting different flavourings. They will also learn to record their experiences by, for example, drawing, writing and making a tape or model.

5. Design and Technology and Computing

Computing enhances the teaching of Design and Technology, wherever appropriate, in all key stages. Children in Year 6 use computing software to control a product they have made. The children also use computing to collect information and to present their designs through a range of design and presentation software.

6. Assessment and Recording

Work in Design and Technology may be assessed through judgements of recorded work but a large proportion of assessment is involved with practical application and language development involving discussion, description and explanation skills. Evidence may be seen in class books and through photographs of 3D models. Teachers will continuously assess during lessons to address misconceptions and any difficulties children may be facing. Additional time should be provided to cover the skills that pupils need, and support given where needed. Formative assessment will ensure that children are following the six principles of Design Technology, concentrating on the User, Purpose, Functionality, Design Decisions, Innovation and Authenticity.

7. Resources

A selection of materials and tools are available for children's use to enable them to access the subject and make informed choices.

8. Food Hygiene and Safety Issues

A safe working environment and ways of working need to be encouraged from the earliest stage. All areas must be in the direct vision of the teacher and there should be enough space for each child and group to work comfortably. Teachers should be aware of any physical limitations which a pupil may suffer e.g. height disability, poor eyesight or hearing, and make suitable arrangements to allow the pupil to operate sensibly.

Teachers teach the safe use of tools and equipment and insist on good practice prior to starting the making part of a task. However, safety issues do arise when teaching this subject.

These include:

- The use of electrical equipment such as glue guns – Children should wear suitable eye protection and use cool glue guns with the 1:1 supervision of an adult.
- Contact with sharp objects including wood, nails, needles, saws, knives etc.
- The handling of food stuffs – Children need to ensure they are aware of personal hygiene rules such as wearing a clean apron, washing hands before handling food, storing perishable foods appropriately.
- The use of cooking appliances, including ovens and hobs.

It is the duty of all staff to:

- Recognise and assess the hazards and risks to themselves and others when working with food and other materials.
- Take action to control these risks and hazards.
- Complete a risk assessment prior to practical lessons to ensure that pupils are safe when using tools and to minimize the risks of cross contamination etc within food preparation lessons.

Teachers should be aware of the following:

- Children must not use cooking appliances unless under direct supervision from a responsible adult. The portable oven may be used in an area away from the children.

- Saws and other sharp objects (nails, needles, craft knives, etc) must be used under direct supervision. The teacher will make a judgement on the undertaking of activities involving sharp and/or potentially dangerous equipment depending on the age/ability of the children. Some activities may be undertaken by an adult or in a small group or one to one situation as appropriate.
- All batteries should be zinc carbon or zinc chloride – rechargeable, lithium or alkaline batteries should not be used as these can get very hot if short-circuited.
- Perishable foodstuff must be stored sensibly and refrigerated if necessary. Care must be taken to ensure food is not used after the given sell by/use by date.
- Children must wash their hands before and after any contact with food and other potentially harmful substances.
- Teachers must take into account possible food allergies such as nuts and should be aware of the location of any medication for the allergy. These should be clearly noted on the risk assessment.

9. Monitoring and Evaluating

The D.T. Subject Leader will;

- a. Develop policy.
- b. Update DT section on website.
- c. Monitor the teaching and learning of D.T. throughout the School.
- d. Manage and organise resources to support staff deliver a creative curriculum.
- e. Keep up to date with new developments in D.T. and inform and train staff where appropriate.