

Inspire Academy



Inspire Academy

Academy

Design and Technology

Index

Introduction	Page 1
Intent statement	Page 1
Definition	Page 1
Vision	Page 1
Aims	Page 2
Inclusion	Page 2
Food hygiene and safety issues	Pages 2 & 3
Resources	Page 3
Teaching and learning	Pages 3 - 5
Assessment	Page 5
Monitoring and recording	Page 5

**Inspire
Academy**

Introduction

This is a statement of the aims, principles and strategies for the teaching and learning of Design and Technology at Inspire Academy.

Intent Statement

At Inspire Academy we aim to provide all children with a broad and balanced curriculum which prepares them for life beyond primary education. We encourage children to use their creativity and imagination, to design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. During Design and Technology, we teach children the language skills they will need to be effective communicators. We actively encourage our children to be critical thinkers, forward planners and effective problem solvers. We also teach our children to be able to work as capable individuals and as part of a valuable, productive team. Resilience is a key theme running through our DT curriculum, and the children are encouraged to become innovators and risk-takers. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

(The National Curriculum 2014)

Definition

Design and Technology capability in this school is achieved through opportunities and experiences across the curriculum which enable pupils to take part in a broad range of activities directly concerned with:

Identifying needs

Generating ideas

Planning

Making

Evaluating

Design and Technology can be achieved both through a subject approach and topic or thematic approach, i.e. Science - to design and build apparatus for an experiment.

Technology - to design and build a battery powered buggy.

Vision

DT provides children with the knowledge, curiosity and creativity to be successful in an ever-evolving world.

Aims

All children will be given the opportunity to:

- 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.

Inclusion

In our teaching of design and technology we will use differentiation: by outcome; by task; by resource and by support.

It is suggested that differentiation by outcome is balanced with other forms of differentiation. Children will do similar activities, teachers will assess the outcome and then adapt aspects of teaching and activities which follow.

Differentiation in design and technology can also be planned for in:

- the expectations,
- the time teachers give to individuals and groups;
- instructions adults give;
- the support adults give;
- the expectations teachers have of the children;
- the time allowed for the activity;
- the material and equipment provided;
- the range of choice available. Teachers should make a professional decision about which handful or one of these you might employ in a lesson.

Food Hygiene and Safety Issues

We enable pupils to have access to the full range of activities involved in learning design and technology. Where children are to participate in activities outside the classroom, for example in a museum or on a factory trip, we carry out a risk assessment prior to the activity, to ensure that the activity is safe and appropriate for all pupils. 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.
- The handling of food stuffs.

- The use of cooking appliances, including ovens and hobs.
- Contact with sharp objects including wood, nails, needles, saws etc.
- Awareness of personal safety (jewellery, hair, eye protection)

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

Teachers should be aware of the following:

- Children must not use cooking appliances unless under direct supervision from a responsible adult.
- 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 in his / her class. Some activities may be undertaken by an adult or in a small group or one to one situation as appropriate.
- 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
- Teachers and adult support staff must oversee that cupboards, table tops, cooker etc, are clean and in working order
- 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 to food such as nuts and should be aware of the location of any medication for the allergy.

Resources

The Design and Technology Subject Leader is responsible for discussing resource needs with teachers

Teaching and Learning

Foundation Stage

Design and Technology in the Foundation Stage is an integral part of the continuous provision. We ensure that there is an emphasis on creative work in the nursery and reception class. We relate the creative development of the children to the objectives set out in the Early Years document, which underpin the curriculum planning for children in the foundation stage. We encourage the development of skills, knowledge and understanding that help nursery and reception children make sense of their world as an integral part of the school's work. These underpin the curriculum planning for children aged three to five. This learning forms the foundations for later work in design and technology. These early experiences include asking questions about how things work, investigating and using a variety of

construction kits, materials, tools and products, developing making skills and handling appropriate tools and construction material safely and with increasing control. We provide a range of experiences that encourage exploration, observation, problem solving, critical thinking and discussion. These activities, indoors and outdoors, attract the children's interest and curiosity.

Key Stage 1

DT in KS1 will be taught as part of the topic based curriculum, with links to other subjects. KS1 children will be taught

- **Design:** to design functional and attractive products to appeal not only to themselves, but also to other identified users.
- **Make:** to select and use a range of tools and materials.
- **Evaluate:** to evaluate their own designs against the design criteria and to evaluate existing products.
- **Technical Knowledge:** to build structures, exploring how they can be made stronger, stiffer and more stable and explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.
- **Cooking and nutrition:** to understand where food comes from and the basic principles of a healthy and varied diet. To design and prepare dishes based on this knowledge.

Key Stage 2

It is intended that work of Key Stage 2 will build on, and develop the skills learned in Key Stage 1. Children will be taught the skills and knowledge needed to successfully design and make and evaluate their work.

- **Research:** to carry out research of existing products.
- **Design:** To develop design criteria in order to produce a product which is fit for purpose and aimed at a specific group of people.
- **Make:** to select and use a range of tools and materials, taking into account their product's functional and aesthetic qualities.
- **Evaluate:** to evaluate existing products, their own work and the work of others in order to improve their design. To have an understanding of how designers and their products have helped to shape the world.

Technical Knowledge: to apply their understanding of how to strengthen, stiffen and reinforce more complex structures, understand and use mechanical systems in their products, understand and use electrical systems in their products and apply their understanding of computing to program, monitor and control their products.

Cooking and nutrition: to have an understanding of the seasonal nature of foods, and where and how it is produced. To understand what it means to have a healthy diet. To cook and prepare a range of predominantly savoury foods using a range of techniques.

Assessment and Recording

Children will be assessed termly against the Design and Technology KPIs.

In KS2, teachers will be asked to plan their DT units using booklets. By the end of each year, they should have 3 booklets – differentiated by ability when determined necessary - ready for the Design and technology Subject Leader to look at.

Monitoring and Reporting

The Design and Technology Subject Leader will be responsible for the monitoring and evaluation of Design and Technology planning, teaching and work throughout the school and reviewing this policy. The Design and Technology Subject Leader will carry out termly monitoring which may include:

- Interviewing children to discover their perceptions of the subject.
- Work/planning sampling and scrutiny to ensure coverage and progression throughout the school,
- Climate walks to check the regularity and impact of the displays for the subject The Design and Technology Subject Leader will feed back to staff findings from monitoring and advise them on good practice/areas for development.

Inspire
Academy