

St Ives Infant & Nursery School - Design & Technology Statement

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. 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. (National Curriculum 2014)

Intent

Aims 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.
- develop knowledge, understanding and skills that are progressive as well as transferable to further education and beyond.
- will be equipped with the vocabulary that they need to become enterprising citizens and ask questions about our world

Implementation

Design and Technology is a practical and creative subject taught through cross curricular topics. We believe that our children are natural investigators, inventors and makers. We encourage their creativity and imagination to create simple products and promote the enjoyment and challenge in solving problems.

Children will have the opportunity to engage in the process of designing and making, acquire the skills to make products as well as evaluate and test their ideas. They will develop the life skills and gain knowledge associated with healthy living, food nutrition and cookery.

Design and Technology allows children to explore the designed and human made world that they live in and teaches them the practical skills and techniques to make a design come to life.

Following the Early Years Foundation Stage Framework, Design and Technology skills are incorporated into focused opportunities within the following areas of learning:

- Expressive Arts and Design
- Communication and Language
- Physical Development (Moving and Handling)
- Mathematics (Shape, Space and Measure)
- Understanding of the World

In Years 1 and 2, teachers plan lessons that are based around the units outlined in the National Curriculum for Key Stage 1 and adapted. They are blocked into half term units, the term being shared with Art & Design.

Following the National Curriculum for Design and Technology, there are five areas which the children will learn a variety of skills and techniques. These areas are:

1. Cooking and Nutrition:

- understand where food comes from
- use the basic principles of a healthy and varied diet to prepare dishes

2. Design:

- design purposeful, functional, appealing products for themselves and other users
- generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, computing

3. Make:

- select from and use a range of tools and equipment
- use a wide range of materials and components, including construction materials, textiles and ingredients

4. Evaluate:

- explore and evaluate a range of existing products
- evaluate their ideas and products against design criteria

5. Technical knowledge:

- build structures, exploring how they can be made stronger, stiffer and more stable
- explore and use mechanisms, such as levers, sliders, wheels or axles within their products

Teaching Methods

Design Technology is taught through a variety of teaching methods and approaches. These may include at various times:

- Whole class teaching
- Group and paired work
- Individual work

- Visits
- Demonstrations and/or workshops from visiting artists, crafts people and designers
- Discussions about the work of other designers encouraging higher level thinking and second level vocabulary

PSHE links with Design Technology

Design technology helps children to develop the skills needed for life and work, for example:

- the ability to concentrate
- listening skills
- creativity
- aesthetic sensitivity
- perseverance
- intuition
- personal skills
- self confidence
- sensitivity/empathy towards each other

Collaborative work, as well as individual work, stimulates creativity and helps in the whole social development of the child.

Impact

Assessment of children's progress may include observing pupil's work, involving children in assessing their work, questioning, talking and listening to pupils and considering the items produced. Children in KS1 complete evaluation sheets.

Short term informal assessments by the teacher are continually taking place and may inform the delivery and structure of the next stage of learning.

Children will be able to talk about their design and technology projects and use subject specific language to discuss what they have learnt. They will be able to reflect on what went well and what they could have improved in their finished product. Children will have developed skills for researching, investigating, analysing and evaluating. Evidence will show progress in knowledge and skills from the beginning of a topic to the end. Children will feel inspired and curious about Design & Technology and want to find out more about it in their world. Children will have a good understanding of the requirements for a healthy diet and will be able to cook a range of dishes.