

Design Technology (DT) Policy



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1. Our Values

At Stanford Infant School we celebrate friendship, respect, creativity and courage.
Our safe and happy learning environment engages challenges and inspires our learners on the beginning of a journey of learning forever.

'Exploring and Learning Together, Inspiring Each Other'

2. Subject Intent

At Stanford Infant School, Design Technology is about problem solving. Children use their knowledge, understanding, and creativity to design, build, and evaluate a range of purposeful practical products. This includes different structures and mechanisms, as well as preparing healthy and nutritious food in a variety of cross-curricular contexts. The curriculum from Reception through to Year 2 supports the development of children's ability to select and use appropriate tools safely and effectively. Children consider their relationship with the world of design and themselves as designers and builders in a range of relevant contexts.

AIMS

Through the teaching of DT, Stanford Infant School aims to:

1. Develop children's **enjoyment and interest** in DT.
2. Develop children's understanding of **key concepts** and **skills**.
3. Ensure that children understand the **relevance** of what it is that they are learning.
4. Ensure that children understand how to use tools **safely** and **responsibly**.

We strive to achieve our aims through these key principles of pedagogy:

1. To ensure that children learn through a range of **engaging activities**.
2. To encourage both **collaborative** and **independent** learning.
3. Careful **planning** and **assessment** will enable children to make progress.
4. **Differentiation** will supply appropriate challenge and support.
5. Children will be encouraged to **record** in a range of ways. Teachers will carefully identify the reasons for a particular method of recording. Children will record independently when appropriate.

3. Legal Framework

1.1. This policy has due regard to statutory guidance including, but not limited to, the following:

- DfE (2017) 'Statutory Framework for the Early Years Foundation Stage'
- DfE (Sept 2013) Statutory Guidance 'National Curriculum in England: Framework for Key Stages 1 to 4'.
- DT Programmes of Study

This policy should be read in conjunction with the following school policies and procedures:

- Curriculum Policy
- Health and Safety Policy
- Teaching and Learning Policy

4. Roles and Responsibilities

a. The DT Subject Leader is responsible for:

- Preparing policy documents, curriculum plans and schemes of work for the subject.
- Reviewing changes to the national curriculum and advising on their implementation.
- Monitoring the learning and teaching of DT, providing support for staff where necessary.
- Ensuring the continuity and progression from year group to year group.
- Encouraging staff to provide effective learning opportunities for pupils.
- Helping to develop colleagues' expertise in the subject.
- Organising the deployment of resources and carrying out an annual audit of all DT resources.
- Liaising with teachers across all phases.
- Communicating developments in the subject to all teaching staff.
- Leading staff meetings and providing staff members with the appropriate training.

- Organising, providing and monitoring CPD opportunities in the subject.
 - Ensuring common standards are met for recording and assessment.
 - Advising on the contribution of DT to other curriculum areas, including cross-curricular and extra-curricular activities.
 - Collating assessment data and setting new priorities for the development of DT in subsequent years.
- b. The Year Group/Classroom Teacher is responsible for:
- Acting in accordance with this policy.
 - Ensuring progression of children's DT knowledge, skill and understanding, with due regard to the national curriculum.
 - Planning lessons effectively, ensuring a range of teaching methods are used to cover the content of the national curriculum.
 - Liaising with the DT Leader about key topics, resources and supporting individual children.
 - Monitoring the progress of pupils in their class and reporting this on an annual basis.
 - Reporting any concerns regarding the teaching of the subject to the DT Leader.
 - Undertaking any training that is necessary in order to effectively teach the subject.

5. The DT Curriculum (implementation)

Teachers will set high expectations which inspire, motivate, and challenge children when teaching curriculum. They will set goals that stretch and challenge pupils of all backgrounds and promote good progress and outcomes. They will plan and teach well-structured lessons in co-ordination with the DT lead, adapting their teaching to the strengths and needs of their class. Assessment will be accurate and inform future planning.

6. Early Years Provision

- a. Activities and experiences for children will be based on the seven areas of learning and development, as outlined in the DfE's 'Statutory Framework for the Early Year's Foundation Stage'.
- b. Provision for early years children focusses on four specific areas:
- Literacy
 - Maths

- Understanding the World
 - Expressive Arts and Design
- c. And three prime areas:
- Personal, Social and Emotional Development
 - Communication and Language
 - Physical Development
- d. All children in the EYFS are taught DT as an integral part of their Learning Journeys throughout the academic year.
- e. All DT activities within the EYFS are underpinned by objectives of the Early Learning Goals (ELGs)
- f. The DT curriculum in the EYFS is delivered with particular reference to the Specific Area **Expressive Arts and Design**: “[children] safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function... [They] use what they have learnt about media and materials in original ways, thinking about uses and purposes. They represent their ideas, thoughts, and feelings through design and technology [and] art”
- g. Teachers plan structured activities and time for child-initiated activities, which enable the children to practise skills and gain confidence. Children develop their understanding of the world around them on a daily basis. Within the planning and teaching of ‘Understanding the World’ in the Foundation Stage, staff take into consideration the varying needs and levels of development of the children. Understanding is also developed through stories, songs, games and imaginative play. DT resources are available in the indoor learning environments.

7. The National Curriculum

- a. The National Curriculum is followed and provides a full breakdown of the statutory content to be taught within each unit.
- b. **KS1 Objectives**

Pupils should be taught to:

Design

- design purposeful, functional, appealing products for themselves and other users based on design criteria

- generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology

Make

- select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]
- select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

Evaluate

- explore and evaluate a range of existing products
- evaluate their ideas and products against design criteria Technical knowledge
- build structures, exploring how they can be made stronger, stiffer and more stable
- explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.

Cooking and Nutrition

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

Year 1 Programme of Study

Autumn

Design, make, & evaluate a moving picture (lever)

Cooking and Nutrition

Use the basic principles of a healthy and varied diet to prepare dishes:

Super Smoothies!

Autumn 2

Design, make, & evaluate a reflective Christmas tree ornament.

Spring 1

Design, make, & evaluate a floating pirate ship.

Spring 2

Cooking and Nutrition

Use the basic principles of a healthy and varied diet to prepare dishes inspired by the fruit in Handa's Surprise.

Summer 1

Collaboratively design, make, and evaluate, using technical knowledge, large-scale sculptures for an exhibition.

Summer 2

Dependant on whole-school Learning Journey.

Year 2 Programme of Study

Autumn 1

Challenges (oranges in a newspaper bag etc.)
Binca sewing square – design and make.

Autumn 2

Making London houses

Spring

Each class to cook for year group to taste.

Summer 1

Design a habitat/home for a living thing e.g. bird house/beehive

Summer 2

Pop up books with movers, sliders & wheels.
Theme of “moving on”

The Organisation of DT (implementation)

Content

DT is taught through a wide variety of exciting activities that engage the children’s curiosity. Teachers adapt planning to meet the specific needs of their class, looking for opportunities to challenge children to a greater depth or to guide children who need additional support. Teachers use formative and summative assessment to track the progress of the children and the monitor the effectiveness of the lessons. DT is taught with a wide range of resources from recycled “junk” modelling to nutritious edible ingredients. A thoughtful and reflective approach is promoted across the curriculum and teachers talk with the children about how to use plans and evaluations to improve their learning.

Coverage

DT at Stanford Infants covers breadth and depth of the national curriculum. In the EYFS teaching and learning is focussed around “Expressive Arts and Design”. Children should safely explore a wide range of materials and tools to build and create using variety of techniques. They should be encouraged to experiment with design, form, and function. Children are supported in using their imaginations to express their ideas, thoughts, and feelings through design and technology.

In KS1 there is clear progression from Year 1 through Year 2. Children will learn the principles of design – how to plan purposeful appealing products for specific

users. They will generate and use design criteria and communicate their ideas through talking, drawing, templates, and, where appropriate, information and communication technology. When making, they will be able to use a range of tools and equipment for practical tasks and will select from a range of materials and components, using their knowledge and skills to make appropriate selections. When evaluating, children will return to those design criteria and reflect on both the strengths and flaws of their creations. When cooking, children will learn about the importance of a healthy and varied diet and develop an understanding of where food comes from.

Depth

When planning DT lessons, teachers always consider the children in their class and their specific strengths and areas of need. Opportunities for additional challenge to show greater depth are baked into the planning and teachers will adapt their plans 'on the fly'. Teachers will decide in year groups when and what to assess and will agree on specific criteria that should be met to show whether children are working towards, at, or exceeding the expectations for their year group or Key Stage.

8. Cross-Curricular Links

a. English

- Children are encouraged to use their speaking and listening skills to describe what is happening.
- Children's vocabulary is developed through the use and understanding of specialist terminology.

b. Maths

- Children will need to understand measuring and principles of geometry in their designs.

c. Art

- Children will understand how to make their products appealing through a range of artistic efforts

d. RE

- The RE curriculum teaches the importance of structures and objects, some of which can be linked to the DT curriculum.

e. Computing

- Design should incorporate online research into good examples of particular products

f. SMSC

- Children's development will be include wonder at the vastness of the world, often accessed digitally.

- Children will be encouraged to collaborate, learn from each other and share ideas and feelings about DT.
- Children will develop an understanding and appreciation of different times, cultures and religions.

9. Teaching and Learning

- a. Children will be taught to describe key characteristics and associated processes in common language, as well as understand and use technical terminology and specialist vocabulary.
- b. Children will undertake independent work, and have the opportunity to work in groups and discuss work with their peers.
- c. All year groups, in collaboration with the DT Leader, will ensure that the needs of all children are met by:
 - Setting tasks which can have a variety of responses.
 - Providing resources of differing complexity according to the ability of pupils.
 - Providing additional challenges as appropriate.
 - Utilising Teaching Assistants to ensure that pupils are effectively supported.
- d. Opportunities for outdoor learning and practical work will be provided wherever possible.

10. Special Events and Opportunities

DT is often at the heart of special events in the school. For example:

- Cooking and eating foods that are special in particular religions or other cultures; for example, Year 2 explore foods from 'Around The World'.
- On superhero day, Year 1 design, make, and evaluate moving pictures and on pirate day, Year 1 design, make, and evaluate pirate ships.
- The children's parade starts a 'big make'.
- Each class creates festive hoops to decorate the hall.

11. Planning

- a. All relevant staff members are briefed on the school's planning procedures as part of staff training.
- b. At Stanford Infant School, DT is taught as a discrete lesson and as part of cross-curricular themes when appropriate.

- c. Teachers will use the key learning content in the DfE's statutory guidance 'National Curriculum in England: DT programmes of study'.
- d. Lesson plans will demonstrate a balance of interactive elements used in teaching, ensuring that all children engage with their learning.
- e. There will be a balance of visual, auditory and kinaesthetic elements to ensure the lesson is engaging and appropriate for all children.
- f. Long-term planning will be used to outline the units to be taught within each year group.
- g. Medium-term planning will be used to outline the vocabulary and skills that will be taught in each unit of work, as well as highlighting the opportunities for assessment.
- h. Medium-term plans will identify learning objectives, main learning activities and differentiation.
- i. Medium-term plans will be shared with the DT Leader to ensure there is progression between years.
- j. Short-term planning will be used flexibly to reflect the objective of the lesson, with associated steps to success criteria and links to the next lesson.
- k. Short-term planning is the responsibility of the teacher. This is achieved by building on their medium-term planning, taking into account children's needs and identifying the method in which topics could be taught.
- l. All lessons will have clear learning objectives, which are shared and reviewed with children.

12. Equipment and Resources

- a. The Subject Leader is responsible for the management and maintenance of DT resources.
- b. DT resources are stored in the hall resource room, classrooms, and activity areas.
- c. Equipment is checked prior to each use and any damages or defects must be reported to the Subject Leader immediately.

- d. Staff members must inform the Subject Leader of any changes regarding DT resources, such as broken items or when new resources are required.
- e. The Subject Leaders will carry out an annual audit of the DT resources, reordering any consumables when necessary.

13. Health and Safety

- 12.1. Staff members will act in accordance with the school's Health and Safety Policy at all times.
- 12.2. Accidents and near-misses will be reported following the procedure outlined in the school's Accident Reporting Procedure.
- 12.4. All staff members will be shown how to correctly use equipment as part of their induction training.
- 12.5. All children will be shown how to correctly use equipment and will be monitored by staff members whilst using equipment.
- 12.6. All children will be made aware of how they are expected to behave, ensuring that they show respect to other people and the environment.
- 12.7. Children are made aware of the personal safety protocols and equipment needed when using different equipment or carrying out different tasks.
- 12.8. Staff members will be made aware of the COSHH and RIDDOR regulations as part of their induction training and will act in accordance with these whilst undertaking activities.
- 12.9. Any 'new' experiments or activities which a teacher has not used in the classroom before will be trialled prior to being performed with children.
- 12.10 Staff will review any websites or videos that the children will see or access beforehand to check that all content is age-appropriate.

14. Equal Opportunities

- a. All children will have equal access to the entire DT curriculum, differentiated accordingly.
- b. Gender, learning ability, physical ability, ethnicity, linguistic ability and/or cultural circumstances will not impede children from accessing all DT lessons.
- c. Where it is inappropriate for a child to participate in a lesson because of reasons related to any of the factors outlined above, the

lessons will be adapted to meet the children's needs and alternative arrangements involving extra support will be provided where necessary.

- d. All efforts will be made to ensure that cultural and gender differences will be positively reflected in all lessons and teaching materials used.
- e. Stanford Infant School aims to provide more academically able children with the opportunity to extend their DT through extension activities that deepen the aims of the curriculum. Year groups will identify these opportunities in their planning and assessments.

15. Assessment and Reporting

- a. Throughout the year, teachers will plan on-going creative assessment opportunities in order to gauge whether children have achieved the key learning objectives.
- b. Assessment will be undertaken in various forms, including the following:
 - Talking to children and asking questions
 - Discussing children's work with them
 - Providing feedback against the learning objectives
 - Observing practical tasks and activities
 - Children's self-evaluation of their work
- c. Formative assessment, which is carried out informally throughout the year, enables teachers to identify children's understanding of subjects and informs their immediate lesson planning.
- d. In terms of summative assessments, the results of end-of-year assessments will be passed to relevant members of staff, such as the children's future teacher, in order to demonstrate where learners are at a given point in time.
- e. Parents/carers will be provided with a written report about their child's progress during the summer term every year.
- f. Verbal reports will be provided at Parent Teacher Consultations during the Autumn and Spring terms.
- g. Children with Special Educational Needs and Disabilities will be monitored by the Inclusion Leader.

16. Monitoring and Review

- a. This policy will be reviewed every 3 years, or sooner if required, by the DT Leader.
- b. The DT Leader will monitor teaching and learning in the subject at Stanford Infant School, ensuring that the content of the national curriculum is covered across all phases of children's education.
- c. Any changes made to this policy will be communicated to all teaching staff.