

STOWER PROVOST COMMUNITY SCHOOL

Curriculum drivers

The curriculum is underpinned by the school's Curriculum Drivers: Engage, Develop, Innovate and Express. The spiritual, moral, social and cultural development of our pupils and their understanding of the core values of our society are woven through the curriculum.

Design and Technology Curriculum Statement

Ownership	AB
Created	Date May 2021
Approved by	
Governors	
Updated (if apt)	September 2023
To be reviewed	

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1. <u>Curriculum Statement</u>

Intent

In line with the 2014 National Curriculum for Design and Technology, our aim is to provide a high-quality Design and Technology education which 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.

Our curriculum drivers will clearly be evident in the teaching and learning of this subject.

At Stower Provost, we aim to develop the children's skills to becoming competent and confident in Design and Technology and where possible, to design, make and evaluate products which have a real purpose.

Through learning about, reflecting upon and evaluating past and present design technology, the children will be able to draw on their knowledge of this subject when going through the design process for their own products.

We aim to, wherever possible, link work to other disciplines such as Mathematics, Science, Computing and Art and Design.

Implementation

At Stower Provost, Design and Technology is taught in class, with themes derived from the Curriculum Maestro 'Cornerstones' programme. The Cornerstones mixed class programme is followed with a 2 year rolling programme shown as Cycle A and Cycle B. Design and Technology Projects are linked to key themes, with D&T projects normally taught in a half termly block, with one lesson per week. Learning is progressive and links to the National Curriculum programmes of study. Links to other subjects are made where appropriate, such as science.

The Curriculum Maestro 'Cornerstones' programme and associated D&T projects key learning, skills and National Curriculum coverage are mapped out on the Design and Technology subject progression documents.

The children will go through the designing, making and evaluating process alongside developing their technical knowledge.

The school is resourced with suitable equipment to teach the Design and Technology curriculum. Lessons are carried out in classrooms and teachers will need to ensure risks assessments are made when making use of the equipment.

Impact

Ongoing assessments take place throughout the year with teachers using this information to inform future lessons; ensuring children are supported and challenged appropriately.

Children's skills will be assessed and developed by the teacher during lessons and through discussions. Assessment is supported by use of the following strategies:

- Observing children at work.
- Using differentiated, open-ended questions that require children to explain and unpick their understanding.
- Providing effective feedback.
- Use of the 'what I know already, what I want to know and what I have learnt' (KWL) strategy, alongside specific and measurable learning intentions for each lesson.
- Consistent discussions and questions about 'sticky knowledge' which is key for each project.

Samples of the children's work will shared and standards discussed in designated staff meetings, with some selected work being uploaded to the Design and Technology folder on SharePoint to monitor the impact of the design & technology curriculum and how it is being taught.

Design and Technology books will be used to record: project work, ideas, research, skills development and reflections.

Throughout their time at Stower Provost Community School, we aim to encourage our children to build up their natural enthusiasm, ambition, compassion, resilience, confidence and self-reliance. 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.

By the time the children reach the end of their schooling with Stower Provost, we will have provided them with a firm foundation for Design and Technology so that they are equipped to continue their learning in their secondary school education and further.

Design and Technology is an inspiring, rigorous and practical subject. Design and Technology encourages children to learn to think and intervene creatively to solve problems both as individuals and as members of a team. At Stower Provost Community School, 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. We aim to, wherever possible, link work to other disciplines such as mathematics, science, engineering, computing and art. The children are also given opportunities to reflect upon and evaluate past and present design technology, its uses and its effectiveness and are encouraged to become innovators and risk-takers.

2. Teaching and Learning

Design and Technology will engage the children in a broad range of designing and making activities which involve a variety of methods of communication; speaking, designing, drawing, assembling, making and writing. Design and technology lessons, where needed, are taught as a block, but generally once a week in a half termly project block, so that children's learning is focused throughout the designing, making and evaluating process and allowing children to develop their ideas and techniques. Projects from the Curriculum Maestro 'Cornerstones' curriculum are used and adapted as required to ensure a balance of materials, skills, knowledge and understanding throughout each Key Stage, as well as consider the uniqueness of the pupils and locality of Stower Provost. Projects include designing and making assignments (DMAs) supported by focused practical tasks or skills teaching (FPTs) and work involving reviewing existing products (IDEAs). All children should have a breadth and balance of experience.

The curriculum is designed to enable progression in Design and Technology processes, including specific aspects of designing and evaluating. It also ensures that children develop their knowledge and skills systematically; choosing and using an increasing range of tools and techniques to suit a range of different purposes and developing their knowledge and understanding of mechanisms and structures to enable the incorporation of mechanical and electronic systems into their products.

As part of the engagement to each new project, teachers review what the children know already. Knowledge Organisers are used to outline key knowledge to be imparted throughout the project.

In each lesson, children are guided towards the learning intention which is shared at the beginning of the lesson and reviewed by children at the end; this is subsequently used by the teacher during the assessment and review work of children's work and are used to identify individual target areas.

Opportunities will be sought by the school to provide the children with access to places of design and technological significance and learning outside the classroom within projects, where appropriate. The school will also seek to provide access to people with specialist design and technology skills from the local and wider community to enrich the Design and Technology curriculum.

Teachers will ensure their classroom is a visually stimulating and creative environment, which celebrates the process of learning, practising and developing skills in design and technology lessons.

3. Assessment

Children's knowledge and skills are assessed and developed by the teacher during lessons and through critical discussion at the end of each project. Progression is outlined in the Curriculum Maestro 'Cornerstones' progression maps, linked to the national curriculum, and

shown on Stower Provost subject progression documents, which also show previous learning, next steps, vocabulary, 'sticky knowledge' and 'I can' statements. Teachers use the progression documents, as well as project Knowledge Organisers to guide pupils and help impart the key knowledge and skills that underpin progress in each project. Skills and knowledge build progressively throughout the school, and across the programme of study, and form the basis of assessment in Design and Technology.

Knowledge, understanding and skills form the basis of learning objectives for each D&T session and are used to help focus teacher's discussions with children and inform observations. Teachers use the information they gather during projects about the performance of individual children and groups to provide carefully tailored feedback, questioning, explanation and support, according to their needs.

Children's knowledge, skills and understanding will be assessed and developed by the teacher during lessons and through discussion. Assessment is supported by use of the following strategies:

- Ascertaining previous knowledge
- · Observing children at work.
- Using differentiated, open-ended questions that require children to explain and unpick their understanding.
- Providing effective feedback.
- Use of the 'what I know already, what I want to know and what I have learnt' (KWL) strategy, alongside specific and measurable learning intentions for each lesson.
- Consistent discussions and questions about 'sticky knowledge' which is key for each project.

Samples of the children's work will shared and standards discussed in designated staff meetings, with some selected work being uploaded to the Design and Technology folder on SharePoint to monitor the impact of the design & technology curriculum and how it is being taught.

Work books will be used to record: project work, ideas, research, skills development and reflections.

The subject display board will reflect a range of work across key stages, to celebrate and exhibit children's varied responses projects.

4. Planning and Resources

The key skills and knowledge for each Design and Technology Topic have been mapped on the subject progression document. Teachers use these, along with Curriculum Maestro 'Cornerstones' plans to inform their Medium-term plans. Plans are adapted and personalised to Stower Provost, considering the pupils experiences and knowledge. Planning considers cross curricular opportunities.

During an iterative process, children's ideas are communicated and clarified through action. In contrast to a rigid design-make-evaluate process, in an iterative process thought leads to action, resulting in further thought and action as children create their products.

Teachers will either select materials needed to complete a DT project from the DT Resource area, purchase any materials needed for the design, construction and evaluation of a project or decide to use recycled materials or junk modelling to help complete a project. Children are taught to use tools and equipment in a sensible, safe and efficient manner.

5. Organisation

Design and Technology planning is mapped in projects on the subject curriculum overview. Projects are planned to include a balance of designing and making assignments (DMAs), teaching key skills (FPTs) and work involving reviewing existing products (IDEAs). Links with other subject areas are made where appropriate.

6. <u>EYFS</u>

The staff team will select projects from the Curriculum Maestro 'Cornerstones' platform for children to experience creative opportunities and develop key skills and techniques within the EYFS curriculum. There will be a focus on developing fine motor skills and learning how to plan, design and produce the finished project. The knowledge and skills acquired and developed in the EYFS will provide the foundation or those identified in subsequent years. Reception children will be, where appropriate, included in whole school projects, workshops, events and competitions associated with Design and Technology.

7. KS1 and KS2

Teachers will plan lessons that enable children to learn specific skills, design purposeful, functional, appealing products (that are linked to life within the wider world), based on design criteria. Pupils will be encouraged to communicate their ideas through talking and drawing. They learn to select from and use a range of tools and equipment to perform practical tasks and to choose from a wide range of materials and components. Each aspect of the school's Design and Technology programme will link explicitly to the five National Curriculum strands. The provision will support each child's achievement of the 'end-points', as stated on the school's Design and Technology Knowledge and Skills Progression documents, which are directly linked to the National Curriculum 2014.

8. Equal Opportunities

Whole school policy on equal opportunities will be adhered to in Design and Technology activities. Teachers ensure that children have access to the range of Design and Technology activities and use opportunities within Design and Technology to challenge stereotypes. Children are encouraged and supported to develop their Design and Technology capability using a range of materials. Children with special needs or disabilities will be differentiated for and supported appropriately, to ensure development of skills and equal access to the Design and Technology curriculum.

9. Inclusion

All children will be supported through differentiation, adaptation or adult support, to enable equal access to learning in Design and Technology.

10. Role of the Subject Leader

The subject leader will monitor the teaching and learning of Design and Technology across the school; ensuring a high quality, broad and stimulating curriculum, which is adapted and considers the uniqueness of pupils at Stower Provost Community School. They will also support and facilitate opportunities that support the continued professional development of teachers in the teaching and learning of Design and Technology. A range of good-quality materials and tools, which enable teachers to resource and teach the subject effectively, will be maintained by the subject leader.

The subject leader will directly support the school's commitment to:

- provide access to places of design and technological significance and learning outside the classroom,
- provide access to people with specialist design and technology skills from the local and wider community

11. Parents

We encourage all parents and carers to support and assist with whole school events and Design and Technology projects. Parents and carers from the field of design and technology are warmly encouraged to approach the school to support opportunities for enrichment and the school will actively seek to engage and collaborate with parents and carers with specialist skills for this purpose.