

Learning together with Respect, Friendship and Perseverance

Design & Technology - Intent, Implementation, and Impact Statement

Intent

At Bampton CE Primary and Nursery School teachers plan Design & Technology lessons that meet the aims set out in the EYFS framework and the National Curriculum. The intent is to ensure all pupils produce creative, imaginative work and we believe that DT should provide children with a real-life context for learning. Through the DT curriculum, children should be inspired by engineers, designers, chefs, and architects to enable them to create a range of structures, mechanisms, textiles, electrical systems and food products with a real-life purpose.

DT lessons will promote skills progression, knowledge progression and they will offer children the opportunity to ask questions and demonstrate their skills in a variety of ways. The lessons will offer the chance for children to develop their emotional expression through art to further enhance their personal, social, and emotional development. The progression of skills grid will ensure progression of skills and knowledge.

Implementation

Early Years Foundation Stage

- Design & Technology is included within the **Arts and Design (EAD)** area of learning & development. It also includes elements of other areas of learning & development including **Understanding the World (UW) & Physical Development (PD)**.
- Each term, EYFS staff will plan a variety of adult-led teaching and learning opportunities, where children will be taught a range of skills, using a variety of media and tools. Children will be able to explore these skills during continuous provision on a daily basis. Planning will be guided by the **EYFS Statutory Educational Programmes** and **Development Matters** (see Development Matters document for details)

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1007446/6.7534_Development_Matters_Report_and_illustrations_web_2.pdf

EYFS Statutory Educational Programme:

Expressive Arts & Design

The development of children's artistic and cultural awareness supports their imagination and creativity. It is important that children have regular opportunities to engage with the arts, enabling them to explore and play with a wide range of media and materials. The quality and variety of what children see, hear and participate in is crucial for developing their understanding, self-expression, vocabulary and ability to communicate through the arts. The frequency, repetition and depth of their experiences are fundamental to their progress in interpreting and appreciating what they hear, respond to and observe.

Physical Development

Physical activity is vital in children's all-round development, enabling them to pursue happy, healthy and active lives. Gross and fine motor experiences develop incrementally throughout early childhood, starting with sensory explorations and the development of a child's strength, co-ordination and positional awareness through tummy time, crawling and play movement with both objects and adults.

Understanding the World

Understanding the world involves guiding children to make sense of their physical world and their community. The frequency and range of children's personal experiences increases their knowledge and sense of the world around them – from visiting parks, libraries and museums to meeting important members of society such as police officers, nurses and firefighters. In addition, listening to a broad selection of stories, non-fiction, rhymes and poems will foster their understanding of our culturally, socially, technologically and ecologically diverse world. As well as building important knowledge, this extends their familiarity with words that support understanding across domains. Enriching and widening children's vocabulary will support later reading comprehension.

Expressive Arts & Design: Birth to 3
<ul style="list-style-type: none"> • Show attention to sounds and music. • Respond emotionally and physically to music when it changes. • Move and dance to music. • Anticipate phrases and actions in rhymes and songs, like 'Peepo'. • Explore their voices and enjoy making sounds.
<ul style="list-style-type: none"> • Join in with songs and rhymes, making some sounds. • Make rhythmical and repetitive sounds. • Explore a range of sound-makers and instruments and play them in different ways.
<ul style="list-style-type: none"> • Notice patterns with strong contrasts and be attracted by patterns resembling the human face. • Start to make marks intentionally. • Explore paint, using fingers and other parts of their bodies as well as brushes and other tools. • Express ideas and feelings through making marks, and sometimes give a meaning to the marks they make.
<ul style="list-style-type: none"> • Enjoy and take part in action songs, such as 'Twinkle, Twinkle Little Star'.
<ul style="list-style-type: none"> • Start to develop pretend play, pretending that one object represents another. For example, a child holds a wooden block to her ear and pretends it's a phone.
<ul style="list-style-type: none"> • Explore different materials, using all their senses to investigate them. Manipulate and play with different materials. • Use their imagination as they consider what they can do with different materials. • Make simple models which express their ideas.

Expressive Arts & Design: 3 & 4 Year Olds
<ul style="list-style-type: none"> • Take part in simple pretend play, using an object to represent something else even though they are not similar. • Begin to develop complex stories using small world equipment like animal sets, dolls and dolls houses etc. • Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park.
<ul style="list-style-type: none"> • Explore different materials freely, to develop their ideas about how to use them and what to make. • Develop their own ideas and then decide which materials to use to express them. • Join different materials and explore different textures.
<ul style="list-style-type: none"> • Create closed shapes with continuous lines, and begin to use these shapes to represent objects. • Draw with increasing complexity and detail, such as representing a face with a circle and including details. • Use drawing to represent ideas like movement or loud noises. • Show different emotions in their drawings and paintings, like happiness, sadness, fear etc.
<ul style="list-style-type: none"> • Explore colour and colour-mixing.
<ul style="list-style-type: none"> • Listen with increased attention to sounds. • Respond to what they have heard, expressing their thoughts and feelings.
<ul style="list-style-type: none"> • Remember and sing entire songs. • Sing the pitch of a tone sung by another person ('pitch match'). • Sing the melodic shape (moving melody, such as up and down, down and up) of familiar songs. • Create their own songs or improvise a song around one they know.
<ul style="list-style-type: none"> • Play instruments with increasing control to express their feelings and ideas.

Expressive Arts & Design: Reception Children
<ul style="list-style-type: none"> • Explore, use and refine a variety of artistic effects to express their ideas and feelings. • Return to and build on their previous learning, refining ideas and developing their ability to represent them. • Create collaboratively, sharing ideas, resources and skills.
<ul style="list-style-type: none"> • Listen attentively, move to and talk about music, expressing their feelings and responses.
<ul style="list-style-type: none"> • Watch and talk about dance and performance art, expressing their feelings and responses.
<ul style="list-style-type: none"> • Sing in a group or on their own, increasingly matching the pitch and following the melody.
<ul style="list-style-type: none"> • Develop storylines in their pretend play.
<ul style="list-style-type: none"> • Explore and engage in music making and dance, performing solo or in groups.

Primary Phase

- Our Design & Technology curriculum has been designed to cover all of the skills set out in the National Curriculum.

Key Stage 1 National Curriculum Expectations

Design

Pupils should be taught to:

- 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

Pupils should be taught to:

- 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

Pupils should be taught to:

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

Technical Knowledge

Pupils should be taught to:

- 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

Pupils should be taught to:

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

Key Stage 2 National Curriculum Expectations

Design

Pupils should be taught to:

- use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups;
- generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.

Make

Pupils should be taught to:

- select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately;
- select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.

Evaluate

Pupils should be taught to:

- investigate and analyse a range of existing products;
- evaluate their ideas and products against their own design criteria and consider the views of others to improve their work;
- understand how key events and individuals in design and technology have helped shape the world.

Technical Knowledge

- apply their understanding of how to strengthen, stiffen and reinforce more complex structures;
- understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages];
- understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors];
- apply their understanding of computing to program, monitor and control their products.

Cooking and Nutrition

Pupils should be taught to:

- understand and apply the principles of a healthy and varied diet;
- prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques;
- understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

- At Bampton CE Primary & Nursery School we use units from Cornerstones to ensure that National Curriculum expectations are met. The units are carefully chosen and allow for progression of both knowledge and skills. Teachers adapt the planning as necessary to ensure it meets the needs of all children.
- Teaching of DT follows the design, make and evaluate cycle. Each stage should be rooted in technical knowledge. The design process should be rooted in real life, relevant contexts to give meaning to learning. While making, children should be given choice and a range of tools to choose freely from. To evaluate, children should be able to evaluate their own products against a design criteria. Each of these steps should be rooted in technical knowledge and vocabulary.
- Design and Technology skills and understanding are built into each series of lessons. It allows for the revision of ideas to become part of good practice and ultimately helps to build a depth to children's understanding. Through revisiting and consolidating skills, our lesson plans and resources help children build on prior knowledge alongside introducing new skills, knowledge and challenge. The revision and introduction of key vocabulary is built into each lesson. This vocabulary is then included in display materials and additional resources to ensure that children are allowed opportunities to repeat and revise this knowledge. Adult guides and accurate design and technology subject knowledge are always provided within lessons to allow the teacher and adults working in those lessons to feel confident and supported with the skills and knowledge that they are teaching.
- Through these lessons, we intend to inspire pupils and practitioners to develop a love of Design and Technology and see how it has helped shaped the ever-evolving technological world they live in.

Impact

- The impact of using the full range of resources, including display materials, will be seen across the school with an increase in the profile of Design and Technology.
- The learning environment across the school will be more consistent with design and technology technical vocabulary displayed, spoken and used by all learners.
- Whole-school and parental engagement will be improved through the use of design and technology-specific home learning tasks and opportunities suggested in lessons and overviews for wider learning.
- We want to ensure that Design and Technology is loved by teachers and pupils across school, therefore encouraging them to want to continue building on this wealth of skills and understanding, now and in the future.
- Due to the nature of this curriculum area, DT monitoring takes various forms. A key component of this is pupil voice; school DT lead to use pupil voice as an effective tool to ascertain the pupils' ability to express themselves through a range of different mediums. Planning/topic book/project monitoring throughout all year groups also takes place to compliment this, allowing the DT lead to ensure our pupils have the opportunity to develop their skills fully and showcase their talents. Examples of our pupils' work is exhibited throughout the school, both on classroom and communal displays.
- Areas of curriculum strengths and weaknesses are analysed by the DT lead and actions planned, with the agreement of the SLT, to address areas for improvement.
- Reception children will be assessed at against the Early Learning Goals at the end of the EYFS.