

Welford on Avon Primary School - Long Term Plan for Design and Technology

EYFS

During the EYFS pupils explore and use a variety of media and materials through a combination of child initiated and adult directed activities.

They have the opportunities to learn to:

- Use different media and materials to express their own ideas
- Use what they have learnt about media and materials in original ways, thinking about form, function and purpose
- Make plans and construct with a purpose in mind using a variety of resources
- Develop skills to use simple tools and techniques appropriately, effectively and safely
- Select appropriate resources for a product and adapt their work where necessary
- Cook and prepare food adhering to good health and hygiene routines

Key Stage 1

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an interactive process of designing and making. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment].

When designing and making, 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

Key Stage 2

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an interactive process of designing and making. They should work in a range of relevant contexts [for example, the home, school, leisure, culture, enterprise, industry and the wider environment].

When designing and making, pupils should be taught to:

Design:

- 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:

- 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:

- 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.

	Autumn	Spring	Summer
Year 1	Homes Focus: Structures DATA 1D	Moving Pictures Focus: mechanisms DATA 1A	Eat more fruit and vegetables Focus: food DATA 1C
Year 2	Winding Up Focus: mechanisms /structures DATA 2C	Puppets Focus: textiles DATA 2B	Vehicles Focus: mechanisms DATA 2A
Year 3	Packaging Focus: structures DATA 3A	Photograph Frames Focus: structures DATA 3D	Moving monsters Focus: control DATA 3C
Year 4	Money Containers Focus: structure/textiles DATA 4A	Lighting It Up Focus: control/electrical/ computer DATA 4E	Storybooks Focus: control/mechanisms DATA 4B
Year 5	Biscuits Focus: food DATA 5D	Moving Toys Focus: control/mechanisms DATA 5C	Musical Instruments Focus: structures DATA 5A
Year 6	Fairgrounds Focus: control/electrical DATA 6C	Shelters Focus: structures DATA 6A	Slippers Focus: structures/textiles DATA 6B

The final product can be adapted, though the skills must be covered for each unit.

Use of DATA DT units to structure the lessons.

