Stow Heath Primary School

DT Curriculum – EYFS

Early Years Profile:

Pupils should be taught about:

Physical development: Moving and Handling

Expressive arts and design: Exploring and using media and materials

Understanding the World: Technology

Nursery Coverage	Reception Coverage
Autumn Term – **Developing skills in using a range of construction materials (e.g. blocks, duplo, stickle bricks…)** **Spring Term –** **Explore range of technological toys (knobs, pulleys, real objects…)** **Summer Term –** **Explore joining building with recycled materials**	**Autumn Term –** **Investigating using a variety of construction resources** **Spring Term** **Investigating and making 3D models from Recycled materials & clay** **Summer Term –** **Large blocks (devolving large collaborative models)**
Nursery End points (30-50mths)	Reception End points (40-60mths)
I can use one-handed tools and equipment, e.g. makes snips in paper with child scissors. I show an interest in technological toys with knobs or pulleys, or real objects such as cameras or mobile phones. I can show skills in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images. I can use various construction materials. I am beginning to construct, stack blocks vertically and horizontally, make enclosures and create spaces. I am beginning to join construction pieces together to build and balance. I show an awareness that tools can be used for a purpose.	I can use simple tools to effect changes to materials. I can handle tools, objects, construction and malleable materials safely and with increasing control. I can manipulate materials to achieve a planned effect. I can construct with a purpose in mind, using a variety of resources. I can use simple tools and techniques competently and appropriately. I can select appropriate resources and adapt work where necessary. I can selects tools and techniques needed to shape, assemble and join materials they are using.

DT Curriculum - Key Stage 1

National Curriculum:

Pupils should be taught about:

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

Key stage 1

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

Year 1 Coverage	Year 2 Coverage
Autumn Term – 'The Big Build' construction using small and large scale construction materials **Spring Term – 'To the Rescue' 2D vehicle - cutting, joining and finishing techniques/ Lever and slider mechanism** **Summer Term – 'Animal Allsorts' Make a puppet – Textiles/ sewing skills**	**Autumn Term – 'All about me' Cooking and Nutrition – Healthy Sandwich - using range of tools** **Spring Term – 'China' Moving dragons using levers and pneumatics** **Summer Term – 'Out of this World' Moon buggies – Wheels and axels**
Year 1 End points	Year 2 End points
Knowledge & Understanding I can make my model stronger I can use what I already know to generate and talk about my own ideas. **Skills** I can use joining techniques (to include simple stitch work) I can use construction materials I can use tools and materials with help I can use my own ideas to make something I can evaluate my product by saying what I like and dislike	**Knowledge & Understanding** I understand where food comes from I can use what I already know from existing products to generate my own ideas for a design **Skills** I can select tools and techniques I can use a range of joining techniques I can explore and use mechanisms with a lever/slider I can explore and use mechanisms with a wheels/axels I can create a healthy product using a range of tools I can generate and communicate my ideas I can record my design ideas in different ways I can evaluate my product by saying what I like, dislike and how I would improve my work

DT Curriculum –Key Stage 2

National Curriculum:

Pupils should be taught about:

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.

Cooking and Nutrition

Key stage 2

- 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.

Year 3 Coverage	Year 4 Coverage
Autumn Term – 'A journey across the ages' Stone to Iron age structures - both small and large complex structures **Spring Term – 'What's on our doorstep? Marionette Puppet** **Summer Term – 'Romans and Italy' Cooking and Nutrition – Pizzas**	**Autumn Term – 'H20' Make a boat - motor mechanism** **Spring Term – 'Invaders' Pop up toys – Cam mechanism** **Summer Term – 'Amazing Amazon' Moving picture book – levers and linkages**
Year 3 End points	**Year 4 End points**
Knowledge & Understanding I can apply my understanding of how to strengthen, stiffen and reinforce more complex structures. I understand and use mechanical systems in my products I understand that food is grown, reared and caught. I understand the importance of healthy and varied diet when designing a product **Skills** I can investigate a range of existing products I can develop and explain ideas to meet a range of needs I can communicate design ideas in different ways to include computer aided design I can plan what to do I can select tools and techniques appropriate to the task I can create a product with a moveable part I can prepare and cook a savoury dish using a range of cooking techniques I can suggest alternative ways to make a product I can measure, mark, cut out and shape a range of materials and assemble, join and combine components and materials with some accuracy I can reflect on the design and making process by identifying ways I could improve my product.	**Knowledge & Understanding** I understand and use electrical systems (motor) I understand and use mechanical systems (CAM) (Levers and Linkages) **Skills** I can investigate a range of existing products I can generate, develop and communicate my ideas through design in different ways I can select appropriate tools and techniques I can measure, mark, cut out and shape a range of materials and assemble, join and combine components and materials with increasing accuracy. I can test out my product on its intended audience to inform the evaluation process I can identify where evaluation had led to improvements

Year 5 Coverage	Year 6 Coverage
Autumn Term – 'Rites and Rituals' Design and make chocolate food packaging – computer aided design **Spring Term – 'The Ancient Greeks' Textiles – Greek inspired product** **Summer Term – 'London – Then and Now' London's iconic buildings – pulley and gear mechanisms**	**Autumn Term – 'Black Out!' Cooking and Nutrition – Traditional dishes** **Summer Term – 'The World is our Oyster – A time to shine!' Design and make a robot/ toy using a range of mechanisms previously learnt - Enterprise unit**
Year 5 End points	Year 6 End points
Knowledge & Understanding I can use my knowledge of pattern to inform my own designs I understand and use mechanical systems in my product (gears, pulleys, CAMS, levers and linkages) **Skills** I can investigate a range of existing products I can generate ideas by collecting and using information using a number of sources including ICT I can design an appealing product aimed at its intended audience I can plan what I have to do by suggesting a sequence of actions and alternatives if needed I can draw and construct my own 3D net I can select appropriate tools and techniques I can measure, mark, cut out and shape a range of materials and assemble, join and combine components and materials with accuracy. I can construct using textiles and use a variety of joining stitches I can reflect on the progress of my work identifying ways I could improve my product sometimes using feedback from my intended audience	**Knowledge & Understanding** I know about traditional British dishes and their links to history (Cooking and nutrition) I know how British dishes have been influenced from countries around the world. (Cooking and nutrition) I understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed. (Cooking and nutrition) **Skills** I can plan, budget and source ingredients (Cooking and nutrition) I can use a range of preparation and cooking techniques (Cooking and nutrition) I can investigate a range of existing products and use information collected from different sources to inform my design I can generate and clarify ideas for products considering intended purpose I can develop, explain and record ideas clearly in different ways suggesting a sequence of actions and alternatives if needed I can use my knowledge of mechanical and electrical components to create a purposeful product fit for its intended audience I can select from a wide range of materials, tools and techniques so that they are fit for purpose and use these appropriately I can measure, mark, cut out and shape a range of materials and assemble, join and combine components and materials with precision I can refine finishing techniques to strengthen and improve the appearance of their product (to include ICT) I can check my work as it develops and modify if needed I can test out my product on its intended audience and use this to inform the self-evaluation process.