St Andrew's C of E Infant School

Progression in Design and Technology Knowledge & Skills

Early Years Foundation Stage
30-50 Months

Physical Development (Moving and Handling)
- To use one-handed tools and equipment, e.g. makes snips in paper with child scissors.

Physical Development (Health and Self-Care)
- To understand that equipment and tools have to be used safely.

Understanding the World (Technology)
- To show an interest in technological toys with knobs or pulleys, or real objects.
- To show skill in making toys work by pressing parts or lifting flaps to achieve effects, such as sound, movement or new images.

Expressive Arts and Design (Exploring and Using Media and Materials)
- To enjoy joining in with dancing and ring games.
- To begin to move rhythmically.
- To imitate movement in response to music.
- To tap out simple repeated rhythms.

Expressive Arts and Design (Being Imaginative)
- To develop preferences for forms of expression.
- To use movement to express feelings.
- To create movement in response to music.
- To capture experiences and responses with a range of media, such as music, dance and paint and other materials or words.

40-60 Months

Physical Development (Moving and Handling)
- To use simple tools to effect changes to materials.
- To handle tools, objects, construction and malleable materials safely and with increasing control.

Physical Development (Health and Self-Care)
- To show understanding of the need for safety when tackling new challenges and consider and manage some risks.
- To show understanding of how to transport and store equipment safely.
- To practise some appropriate safety measures without direct supervision.

Expressive Arts and Design (Exploring and Using Media and Materials)
- To explore what happens when they mix colours.
- To experiment to create different textures.
- To understand that different media can be combined to create new effects.
- To manipulate materials to achieve a planned effect.
- To construct with a purpose in mind, using a variety of resources.
- To use simple tools and techniques competently and appropriately.
- To select the appropriate resources and adapt work where necessary.
- To select tools and techniques needed to shape, assemble and join materials they are using.

Expressive Arts and Design (Being Imaginative)
- To create simple representations of events, people and objects.
- To choose particular colours to use for a purpose.

Early Learning Goals

Physical Development (Moving and Handling)
- To handle equipment and tools effectively, including pencils for writing.

Expressive Arts and Design (Exploring and Using Media and Materials)
- To safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.

Expressive Arts and Design (Being Imaginative)
- To use what they have learnt about media and materials in original ways, thinking about uses and purposes. They represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role play and stories.

National Curriculum
Key Stage 1

Children should be taught:

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 e.g. cutting, shaping, joining and finishing.
- Select from and use a wide range of materials and components, including construction materials, textiles, ingredients according to their characteristics.

Evaluate
- Explore and evaluate a range of existing products.
- Evaluate 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 e.g. 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.

Design	
Year 1	**Year 2**
• Use pictures and words to convey what they want to design/make. • Model ideas with kits, reclaimed materials. • Select pictures to help develop ideas. • Use drawings to record ideas as they are developed.	• Propose more than one idea for their product. • Use kits/reclaimed materials to develop more than one idea. • Select appropriate technique explaining: First… Next… Last… • Explore ideas by rearranging materials. • Add notes to drawings to help explanations. • Describe the models and drawings of ideas and intentions.

Make	
Year 1	**Year 2**
• Discuss their work as it progresses. • Select materials from a limited range that will meet the design criteria. • Select and name the tools needed to work the materials. • Explain what they are making. • Explain which materials they are using and why. • Name the tools they are using. • Describe what they need to do next.	• Discuss their work as it progresses. • Select materials from a limited range that will meet the design criteria. • Select and name the tools needed to work the materials. • Explain what they are making. • Explain which materials they are using and why. • Name the tools they are using. • Describe what they need to do next.

Food

Year 1	Year 2
• Develop a food vocabulary using taste, smell, texture and feel. • Group familiar food products e.g. fruit and vegetables. • Explain where food comes from. • Cut, peel, grate, chop a range of ingredients.	• Work safely and hygienically. • Understand the need for a variety of foods in a diet. • Measure and weigh food items.

Textiles

Year 1	Year 2
• Decorate fabrics with attached items e.g. buttons, beads, sequins, braids, ribbons. • Colour fabrics using a range of techniques e.g. fabric paints, printing, painting.	• Cut out shapes which have been created by drawing round the template onto the fabric. • Join fabrics by using e.g. running stitch, glue, staples, over sewing, tape.

Structures

Year 1	Year 2
• Explore how to make structures stronger. • Investigate different techniques for stiffening a variety of materials. • Join appropriately for different materials and situations e.g. glue, tape.	• Test different methods of enabling structures to remain stable. • Use a glue gun with close supervision. • Mark out materials to be cut using a template.

Mechanisms

Year 1	Year 2
• Join appropriately for different materials and situations e.g. glue, tape. • Mark out materials to be cut using a template. • Fold, tear and cut paper and card. • Cut along lines, straight and curved. • Use a hole punch. Insert paper fasteners for card. • Experiment with levers and sliders to find different ways of making things move in a 2D plane.	• Try out different axle fixings and their strengths and weaknesses. • Make vehicles with construction kits which contain free running wheels. • Use a range of materials to create models with wheels and axles e.g. tubes, dowel, cotton reels. • Roll paper to create tubes. • Cut dowel using hacksaw and bench hook. • Attach wheels to a chassis using an axle.

Evaluate

Year 1	Year 2
• Explore existing products and investigate how they can be made. • Talk about their design as they develop and identify good and bad points. • Say what they like and do not like about items they have made and attempt to say why.	• Note changes made during the making process as annotation to plans/drawings. • Decide how existing products do/do not achieve their purpose. • Discuss how closely their finished product meets their design criteria and how well it meets the needs of the user.