



Kew Woods Early Years Foundation Stage



Progression Chart - DESIGN TECHNOLOGY

<p>Personal, Social & Emotional Development</p>	<p>Communication & Language</p> <p>22-36 months</p> <ul style="list-style-type: none"> Understands 'who', 'what', 'where' in simple questions <p>30-50 months</p> <ul style="list-style-type: none"> Understands use of objects (e.g. "what do we use to cut things?") Beginning to understand 'why' and 'how' questions. <p>40-60 months</p> <ul style="list-style-type: none"> Two-channelled attention - can listen and do for short span. 	<p>Physical Development</p> <p>22-36 months</p> <ul style="list-style-type: none"> Shows control in holding and using jugs to pour, hammers, books and mark-making tools May be beginning to show preference for dominant hand. Beginning to recognise danger and seeks support of significant adults for help. <p>30-50 months</p> <ul style="list-style-type: none"> Uses one-handed tools and equipment, e.g. makes snips in paper with child scissors. <p>40-60 months</p> <ul style="list-style-type: none"> Shows increasing control over an object in pushing, patting Uses simple tools to effect changes to materials. Handles tools, objects, construction and malleable materials safely and with increasing control. Shows a preference for a dominant hand. Shows understanding of the need for safety when tackling new challenges, and considers and manages some risks. Shows understanding of how to transport and store equipment safely. Practices some appropriate safety measures without direct supervision.
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<p>Reading</p> <p>40-60 months</p> <ul style="list-style-type: none"> Knows that information can be retrieved from books and computers. 	<p>Writing</p>
<p>Number</p>	<p>Shape, Space and Measure</p> <p>22-36 months</p> <ul style="list-style-type: none"> Notices simple shapes and patterns in pictures. Beginning to categorise objects according to properties such as shape or size. Begins to use the language of size <p>30-50 months</p> <ul style="list-style-type: none"> Shows an interest in shape and space by playing with shapes or making arrangements with objects. Shows awareness of similarities of shapes in the environment. Uses positional language. Shows interest in shape by sustained construction activity or by talking about shapes or arrangements. Shows interest in shapes in the environment.

	<ul style="list-style-type: none"> • Uses shapes appropriately for tasks. Beginning to talk about the shapes of everyday objects, e.g. 'round' and 'tall'. <p>40-60 months</p> <ul style="list-style-type: none"> • Beginning to use mathematical names for 'solid' 3D shapes and 'flat' 2D shapes, and mathematical terms to describe shapes. • Selects a particular named shape. • Can describe their relative position such as 'behind' or 'next to'. • Uses familiar objects and common shapes to create and recreate patterns and build models
<p>Understanding the World</p> <p>22-36 months</p> <ul style="list-style-type: none"> • Notices detailed features of objects in their environment. • Seeks to acquire basic skills in turning on and operating some ICT equipment. • Operates mechanical toys, e.g. turns the knob on a wind-up toy or pulls back on a friction car. <p>30-50 months</p> <ul style="list-style-type: none"> • Comments and asks questions about aspects of their familiar world such as the place where they live or the natural world. • Talks about why things happen and how things work • Knows how to operate simple equipment e.g. turns on CD player and uses remote control. • Shows an interest in technological toys with knobs or pulleys, or real objects such as cameras or mobile phones. • Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images. • Knows that information can be retrieved from computers <p>40-60 months</p> <ul style="list-style-type: none"> • Looks closely at similarities, differences, patterns and change 	<p>Expressive Art and Design</p> <p>22-36 months</p> <ul style="list-style-type: none"> • Experiments with blocks, colours and marks. <p>30-50 months</p> <ul style="list-style-type: none"> • Beginning to be interested in and describe the texture of things. • Uses various construction materials. • Beginning to construct, stacking blocks vertically and horizontally, making enclosures and creating spaces. • Joins construction pieces together to build and balance. • Realises tools can be used for a purpose. <p>40-60 months</p> <ul style="list-style-type: none"> • Experiments to create different textures. • Understands that different media can be combined to create new effects. • Manipulates materials to achieve a planned effect. • Constructs with a purpose in mind, using a variety of resources. • Uses simple tools and techniques competently and appropriately. • Selects appropriate resources and adapts work where necessary. • Selects tools and techniques needed to shape, assemble and join materials they are using. • Create simple representations of events, people and objects.

Design and Technology

Exploring Media & Materials / Being Imaginative

	<u>Exploring and using media and materials</u>	<u>Being imaginative</u>
30-50 months	<p>Understands that they can use lines to enclose a space, and then begin to use these shapes to represent objects.</p> <p>Beginning to be interested in and describe the texture of things.</p> <p>Uses various construction materials.</p> <p>Beginning to construct, stacking blocks vertically and horizontally, making enclosures and creating spaces.</p> <p>Joins construction pieces together to build and balance.</p> <p>Realises tools can be used for a purpose.</p>	<p>Developing preferences for forms of expression.</p> <p>Uses available resources to create props to support role-play.</p> <p>Captures experiences and responses with a range of media, such as music, dance and paint and other materials or words.</p>
40-60 months	<p>Experiments to create different textures.</p> <p>Understands that different media can be combined to create new effects.</p> <p>Manipulates materials to achieve a planned effect.</p> <p>Constructs with a purpose in mind, using a variety of resources.</p> <p>Uses simple tools and techniques competently and appropriately.</p> <p>Selects appropriate resources and adapts work where necessary.</p> <p>Selects tools and techniques needed to shape, assemble and join materials they are using.</p>	<p>Create simple representations of events, people and objects.</p>
ELG	<p>They safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</p>	<p>Children use what they have learnt about media and materials in original ways, thinking about uses and purposes.</p> <p>They represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role play and stories.</p>
Exceeding	<p>Children develop their own ideas through selecting and using materials and working on processes that interest them.</p> <p>Through their explorations they find out and make decisions about how media and materials can be combined and changed.</p>	<p>Children talk about the ideas and processes which have led them to make music, designs, images or products.</p> <p>They can talk about features of their own and others' work, recognising the differences between them and the strengths of others.</p>
Year One (KS1)	<p>Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of context [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment].</p> <p><u>Design</u> 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.</p> <p><u>Make</u> 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 variety of materials and components, including construction materials, textiles and ingredients, according to their characteristics.</p> <p><u>Evaluate</u> Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria.</p> <p><u>Technical knowledge</u> 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.</p> <p><u>Cooking and nutrition</u> Use the basic principles of a healthy and varied diet. Understand where food comes from.</p>	

EARLY YEARS EXPECTATIONS

Early Learning Goals

- They are confident to speak in a familiar group, will talk about their ideas, and will choose the resources they need for their chosen activities. They say when they do or don't need help.
- Children show good control and co-ordination in large and small movements.
- They handle equipment and tools effectively, including pencils for writing.
- Talk about ways to keep healthy and safe
- They explore characteristics of everyday objects and shapes
- Children know about similarities and differences in relation to places, objects, materials
- They talk about the features of their own immediate environment and how environments might vary from one another
- Why some things occur, and talk about changes.
- Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes
- They safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.
- Children 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

EXCEEDING EARLY YEARS EXPECTATIONS

Exceeding

- They can talk about the plans they have made to carry out activities and what they might change if they were to repeat them.
- Children follow instructions involving several ideas or actions. They answer 'how' and 'why' questions about their experiences
- They know the properties of some materials and can suggest some of the purposes they are used for. They are familiar with basic scientific concepts such as floating, sinking, experimentation.
- Children find out about and use a range of everyday technology. They select appropriate applications that support an identified need, for example in deciding how best to make a record of a special event in their lives, such as a journey on a steam train.
- Children develop their own ideas through selecting and using materials and working on processes that interest them. Through their explorations they find out and make decisions about how media and materials can be combined and changed.
- Children talk about the ideas and processes which have led them to make music, designs, images or products. They can talk about features of their own and other's work, recognising the differences between them and the strengths of others.

FUTURE LEARNING

Design and technology aims to 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.

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 iterative 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 iterative 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.