

Design and Technology Skills Progression

End of EYFS Expectations

Creating with Materials

Children at the expected level of development will:

- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function;
- Share their creations, explaining the process they have used;
- Make use of props and materials when role playing characters in narratives and stories.

Managing Self

Children at the expected level of development will:

- Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices.

Fine Motor Skills

Children at the expected level of development will:

- Hold a pencil effectively in preparation for fluent writing – using the tripod grip in almost all cases;
- Use a range of small tools, including scissors, paint brushes and cutlery;
- Begin to show accuracy and care when drawing.

Nursery and Pre-School (Range 4 and 5)

Design Make Evaluate	Technical knowledge	Cooking and nutrition
<p>Predicts, moves and rotates objects to fit the space or create the shape they would like</p> <p>Chooses items based on their shape which are appropriate for the child's purpose</p> <p>Shows awareness of shape similarities and differences between objects</p> <p>Creates their own spatial patterns showing some organisation or regularity</p> <p>Makes simple constructions</p> <p>Responds to and uses language of position and direction</p> <p>Enjoys partitioning and combining shapes to make new shapes with 2D and 3D shapes</p> <p>Attempts to create arches and enclosures when building, using trial and improvement to select blocks</p> <p>Investigates turning and flipping objects in order to make shapes fit and create models; predicting and visualising how they will look (spatial reasoning)</p> <p>Uses pipes, funnels and other tools to carry/ transport water from one place to another</p> <p>Explores differences in size, length, weight and capacity</p>	<p>Manipulates a range of tools and equipment in one hand, tools include paintbrushes, scissors, hairbrushes, toothbrush, scarves or ribbons</p> <p>Uses tools for a purpose</p>	<p>Feeds self competently</p> <p>Develops some independence in self-care and shows an awareness of routines such as handwashing</p> <p>Can wash and can dry hands effectively and understands why this is important</p> <p>Willing to try a range of different textures and tastes and expresses a preference.</p>

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<p>Plays with water to investigate "low technology"</p> <p>Experiments with ways to enclose a space, create shapes</p> <p>Uses 3D and 2D structures to explore materials and/or to express ideas</p> <p>Uses various construction materials, e.g. joining pieces, stacking vertically and horizontally, balancing, making enclosures and creating spaces</p> <p>Uses available resources to create props or creates imaginary ones to support play</p>				
<p>Key Vocabulary</p>				
<p>cut, fold wall, tower, strong, top, underneath, on top, side, edge, surface, thin, thick, corner, point, straight, curved, metal, wood, plastic, circle, triangle, square, rectangle</p> <p>fruit and vegetable names, names of equipment and utensils,</p>				
<p>Reception (Range 6)</p>				
<p>Design</p>	<p>Make</p>	<p>Evaluate</p>	<p>Technical knowledge</p>	<p>Cooking and nutrition</p>
<p>Select appropriate resources.</p> <p>Uses own ideas to make models of increasing complexity, selecting blocks needed, solving problems and visualising what they will build</p> <p>Use gestures, talking and arrangements of materials and components to show design.</p> <p>Use contexts set by the teacher and themselves.</p> <p>Use language of designing and making (join, build,</p>	<p>Construct with a purpose, using a variety of resources.</p> <p>Use simple tools and techniques,</p> <p>Build / construct with a wide range of objects.</p> <p>Select tools and techniques to shape, assemble and join.</p> <p>Replicate structures with materials / components. Discuss how to make an activity safe and hygienic.</p> <p>Record experiences by drawing, writing, voice recording.</p>	<p>Talk about their likes and dislikes with their product</p> <p>Adapt work where necessary. 'It would be better if...'</p> <p>Begin to verbally evaluate adaptations made</p> <p>Consider and manage some risks</p> <p>Practise some appropriate safety measures independently</p>	<p>Can manipulate materials to create a planned effect</p> <p>Can explore a variety of materials and talk about their purpose</p> <p>Can construct with a purpose in mind, using a variety of resources</p> <p>Can use various construction materials</p> <p>Can construct vertically and horizontally for a purpose</p> <p>Can join construction pieces together to build and balance</p>	<p><i>Can explore taste and talk about likes/dislikes</i></p> <p>Eat a range of healthy food and begins to understand the need for variety in diet.</p> <p>Describes a range of different food textures and taste.</p> <p>Recognise taste and texture can change when cooked.</p> <p>Notices and discuss changes in food when heated or cooled.</p> <p>Begin to understand some food preparation tools, techniques and processes.</p>

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<p>shape, longer, shorter, heavier etc.)</p> <p>Identify materials needed to create a product</p> <p>Draw and label a design</p> <p>Explain what product they will be designing and making</p>	<p>Understand different media can be combined for a purpose</p>		<p>Can select appropriate resources and adapt work where necessary.</p> <p>Dismantle, examine and talk about existing objects/structures</p> <p>Explore moving vehicles through play</p>	<p>Practise stirring, mixing, pouring, blending, through continuous provision.</p> <p>Discuss how to make an activity safe and hygienic. Discuss use of senses.</p> <p>Begin to understand the need for variety in food.</p> <p>Can begin to talk about where food comes from</p> <p>Can use simple tools to effect changes to food e.g. mash a banana</p> <p>Can handle tools, objects and malleable materials safely and with increasing control, e.g. cutting/slicing a banana</p> <p>Can show some understanding of good practices with regard to exercise, eating and hygiene.</p>
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Key Vocabulary

2D shape, 3D shape, flat, smooth, rough, similarities, differences, cut, PVA glue, glue stick, masking tape, sellotape, pencil, lolly sticks, googly eyes, feathers, buttons, sequins, , line, circle, soft ,hard, stamps, stencils, plasticine, clay, repeating, spotted, striped, texture, lighter, darker, lighten, darken, roll, bumpy, squash, squeeze, curved, pattern, straight line, long line, short line, wavy line, zig zag, weaving, collage, materials, fabric, bubble wrap, foam, ribbons, tissue paper, cardboard, cellophane, natural materials, junk modelling, attach cut, fold, join, fix, structure, wall, tower, framework, weak, strong, base, top, underneath, side, edge, surface, thinner, thicker, corner, point, straight, curved, metal, wood, plastic, circle, triangle, square, rectangle, cuboid, cube, cylinder, design, make, evaluate

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food names, names of equipment and utensils, sensory vocabulary e.g. soft, juicy, crunchy, sweet, sticky, smooth, sharp, crisp, hard, skin, seed, pip, slicing, peeling, healthy.

End of KS1 National Curriculum Expectations

The national curriculum for 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.

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.

Cooking and nutrition

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

Year 1

Design	Make	Evaluate	Technical knowledge	Cooking and nutrition
Generate their own ideas explain what they want to do.	Explain what they are making and why.	Talk about their work, linking it to what they were asked to do.	Begin to measure and join materials, with some support.	Say where some foods come from, (i.e. plant or animal).
Explain the purpose of the product, and how it will work.	Consider what they need to do next.	Talk about existing products considering: purpose,	Describe differences in materials suggest ways to	Describe differences between some food groups (i.e. sweet, vegetable etc.)

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<p>Use pictures and words to plan.</p> <p>Begin to use models.</p> <p>Design a product for myself following design criteria.</p> <p>Research similar existing products.</p>	<p>Select tools/equipment to cut, shape, join, finish and explain choices.</p> <p>Measure, mark out, cut and shape, with support.</p> <p>Choose suitable materials and explain choices.</p> <p>Begin to use finishing techniques to make product look good.</p> <p>Work in a safe and hygienic manner.</p>	<p>materials, how they work, audience, where they might be used.</p> <p>Talk about existing products, and say what is and isn't good.</p> <p>Talk about things that other people have made.</p> <p>Begin to talk about what could make product better.</p>	<p>make material/product stronger.</p> <p>Can with help mark out, cut and shape a range of materials</p> <p>Can use scissors and a hole punch safely</p> <p>Can apply simple finishing techniques, painting, collage, fabric...</p> <p>Can recognise which joining techniques are temporary and which are more permanent, e.g. masking tape, blue tack, PVA glue, sewing</p> <p>Begin to use levers or sliders.</p> <p>Understand the movements of levers and sliders.</p>	<p>Discuss how fruit and vegetables are healthy.</p> <p>Cut, peel and grate safely, with support.</p>
<p>Key Vocabulary</p>				
<p>Space, diagonal, vertical, horizontal, sewing materials. slider, lever, pivot, slot, bridge/guide, card, masking tape, paper fastener, staples, stapler, pins, pinning, template, fabric, join, pull, push, up, down, straight, curve, forwards, backwards, design, make, evaluate, user, purpose, ideas, design criteria, product, function</p>				
<p>cut, fold, join, fix, structure, wall, tower, framework, weak, strong, base, top, underneath, side, edge, surface, thinner, thicker, corner, point, straight, curved, metal, wood, plastic, circle, triangle, square, rectangle, cuboid, cube, cylinder, design, make, evaluate, user, purpose, ideas, design criteria, product, function</p>				
<p>Year 2</p>				
<p>Design</p>	<p>Make</p>	<p>Evaluate</p>	<p>Technical knowledge</p>	<p>Cooking and nutrition</p>

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<p>Generate their own ideas and plan what to do next.</p> <p>Explain what they want to do and describe how they may do it.</p> <p>Explain the purpose of the product, how it will work and how it will be suitable for the user.</p> <p>Describe the design using pictures, words, models, diagrams, begin to use ICT.</p> <p>Design products for myself and others following design criteria.</p> <p>Choose the best tools and materials, and explain choices.</p> <p>Use knowledge of existing products to produce ideas</p>	<p>Explain what they are making and why it fits the purpose.</p> <p>Make suggestions as to what I need to do next.</p> <p>Join materials/components together in different ways.</p> <p>Measure, mark out, cut and shape materials and components, with support.</p> <p>Describe which tools they are using and why.</p> <p>Choose suitable materials and explain choices depending on characteristics.</p> <p>Use finishing techniques to make product look good.</p> <p>Work safely and hygienically</p>	<p>Describe what went well, thinking about design criteria.</p> <p>Talk about existing products considering: purpose, materials, how they work, audience, where they might be used.</p> <p>Express personal opinion.</p> <p>Evaluate how good existing products are.</p> <p>Talk about what they would do differently if they were to do it again and why.</p>	<p>Measure and cut materials with greater independence.</p> <p>Describe some different characteristics of materials.</p> <p>Join materials in different ways use joining, rolling or folding to make it stronger.</p> <p>Use own ideas to try to make product stronger.</p> <p>Can measure, cut and score with accuracy</p> <p>Can use a template</p> <p>Can choose and use appropriate finishing techniques</p> <p>Can recognise which joining techniques are temporary and which are more permanent, e.g. masking tape, blue tack, PVA glue, sewing and select appropriately.</p>	<p>Explain hygiene and keep a hygienic working area.</p> <p>Describe the properties of ingredients and the importance of varied diet.</p> <p>Say where food comes from (animal, underground etc.) Describe how food is farmed, home-grown, caught draw eat well plate; explain there are groups of food.</p> <p>Describe "five a day".</p> <p>Cut, peel and grate with increasing confidence</p>
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Key Vocabulary

vertical, horizontal, vehicle, wheel, axle, axle holder, chassis, body, cab, assembling, cutting, joining, shaping, finishing, fixed, free, moving, mechanism, names of tools, equipment and materials used, design, make, evaluate, purpose, user, criteria, functional, sewing, stitch, thread, template, fold, fix, structure, wall, tower, framework, weak, strong, base, top, underneath, side, edge, surface, thinner, thicker, corner, point, straight, curved, metal, wood, plastic, circle, triangle, square, rectangle, cuboid, cube, cylinder, design, make, evaluate, user, purpose, ideas, design criteria, product, function, **fruit and vegetable**

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names, names of equipment and utensils, sensory vocabulary e.g. soft, juicy, crunchy, sweet, sticky, smooth, sharp, crisp, sour, hard, flesh, skin, seed, pip, core, slicing, peeling, cutting, squeezing, healthy diet, choosing, ingredients