



Progression Map

Design and Technology

	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design	<ul style="list-style-type: none"> • Design and experiments to create different textures, that are appealing to themselves and others. • Explore what they can do with different media and what happens when they put different things together such as sand, paint and sawdust. • Generate, develop and model and communicate their ideas through talking, drawing, templates, mock-ups and where appropriate, ICT 	<ul style="list-style-type: none"> • Design and experiments to create different textures, that are appealing to themselves and others. • Generate, develop, model, communicate their ideas through talking, drawing, templates, mock-ups, and where appropriate, ICT experiments to create different textures. Manipulate materials to create a planned effect. • Constructs with a purpose in mind, using a variety of resources. 	<ul style="list-style-type: none"> • Developing planning and communicating ideas: • Explain what they are making and which materials they are using. Communicate ideas through annotated sketches, drawing, templates, ICT, mock-ups, using sketchbooks as appropriate. • Select materials from a limited range that will meet the design criteria. • Select and name the tools needed to work the materials. 	<ul style="list-style-type: none"> • Developing planning and communicating ideas: • Use pictures and words to convey what they want to design and make. Communicate ideas through annotated sketches, drawing, templates, ICT, mock-ups, using sketchbooks as appropriate. • Select appropriate technique explaining; First...Next... Last • Explore ideas by rearranging materials. 	<ul style="list-style-type: none"> • Developing planning and communicating ideas: • Draw/sketch products to help analyse and understand how products are made. • Think ahead about the order of their work and decide upon tools and materials. • Record and plan by drawing (labelled sketches) or writing. • Communicate ideas through discussion and add notes to drawings to help explanations. 	<ul style="list-style-type: none"> • Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. • Use research and develop design criteria to inform the design of innovative, functional, appealing projects that are fit for purpose aimed at particular individuals or groups. 	<ul style="list-style-type: none"> • 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 • Communicate ideas through annotated sketches, drawing, templates, ICT, mock-ups, using sketchbooks as appropriate. 	<ul style="list-style-type: none"> • Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design • Developing planning and communicating ideas: • Investigate products / images to collect ideas and create own design criteria.

•	•	<ul style="list-style-type: none"> • Working with tools, equipment, materials and components to make quality products: • Use a range of materials to create models. 	<ul style="list-style-type: none"> • Describe their models and drawings of ideas and intentions. • Add notes to drawings to help explanations. • Design a product from detailed design criteria. • Working with tools, equipment, materials and components to make quality products: • Attach wheels to a chassis using an axle. 	<ul style="list-style-type: none"> • Design innovative, functional, appealing products that are fit for purpose that are aimed at particular groups or individuals. • Working with tools, equipment, materials and components to make quality products: • Make structures more stable by giving them a wide base. 	<ul style="list-style-type: none"> • Select from and use a wider range of tools and materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities. 	•	<ul style="list-style-type: none"> • Sketch and model alternative ideas. • Develop one idea in depth. • Combine modelling and drawing to refine ideas. • Plan the sequence of work using a storyboard. • Record ideas using annotated diagrams. • Working with tools, equipment, materials and components to make quality products: • Choose materials based on their functional properties and aesthetic qualities.
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- 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

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- Make their design using the appropriate techniques.
- With help measure, mark out, cut and shape a range of materials.
- Use tools safely.
- Assemble, join and combine materials and components

- Begin to select tools and materials; use vocab to describe them.
- Measure, cut and score with some accuracy.
- Use hand tools safely and appropriately.
- Assemble, join and combine materials and components together using a variety of temporary materials e.g. glue and masking tape in order to make a product.
- Cut, colour and shape fabric to make a simple garment.
- Use basic sewing techniques.
- Choose and use appropriate finishing techniques.

- Select tools and techniques for making their product.
- Measure, mark out, score and assemble components with more accuracy.
- Work safely and accurately with a range of simple tools.
- Think about their ideas as they make progress and be willing to change things if this helps them improve their work.
- Measure, tape or pin, cut and join fabric with some accuracy.
- Using finishing techniques, strengthen and improve the appearance of their product using a range of equipment including ICT.

- Select tools and techniques for making their product.
- Measure, mark out, cut and shape a range of materials using appropriate tools, equipment and techniques.
- Join and combine materials and component accurately in temporary and permanent ways.
- Sew using a range of different stitches, weave and knit.
- Measure, tape or pin, cut and join fabric with some accuracy.
- Use simple graphical communication techniques.

- Select tools and techniques for making their product.
- Measure and mark out accurately.
- Use skills in using different tools and equipment safely and accurately.
- Cut and join with accuracy to ensure a good quality finish to their product.

- Select appropriate tools, materials, components and techniques.
- Assemble components to make working models.
- Use tools safely and accurately.
- Construct products using permanent joining techniques.
- Make modifications as they go along.
- Pin, sew and stitch materials together to make a product.
- Achieve a quality product.

together using a variety of temporary materials e.g. glue and masking tape.

- Use simple finishing techniques to improve the finish of their product.

- Say what they like and dislike about products they make.
- Know when they have made a mistake

- Evaluate the purpose of designs they find in their homes and schools.
- Begin to think about how the materials they have used work within their design.
- Children can think about how things work.

- Start to explore and evaluate a range of existing products:
 - describe how something works
 - identify likes and dislikes of theirs and others designs and why
 - is the product functional? - does it work in relation to the design criteria?

- Evaluate their ideas and products
- Evaluate against a design criteria
 - explain what went well
 - suggest improvements to their own and others designs
 - start to evaluate their design as it is in progress
 - identify strengths and possible changes they would potentially make
- Evaluate a range of existing products
 - explain what they like and dislike about the products and why.

- Investigate and analyse a range of existing products
 - begin to disassemble and evaluate familiar products
- Evaluate their ideas and products against the design criteria
 - explain what they changed, which made their design better
 - how well does it meet the original design criteria
- Consider the views of others to improve their work
 - take on constructive criticism and begin to incorporate their peers ideas, to improve their design

- Investigate and analyse a range of existing products
 - be able to disassemble and evaluate familiar products
 - are the materials used recyclable
- Evaluate their ideas and products against their own design criteria
 - how will they check if their design is successful?
 - carry out appropriate tests
 - start to evaluate their work by referring to their design criteria both during and at the end
 - evaluate in relation to appearance and functionality

- Investigate and analyse a range of existing products
 - how much would the products cost to make
 - how innovative they are
 - how sustainable the materials are
- Evaluate their ideas and products against their own design criteria
 - continuously check their design as they go along
 - use their own initiative to check if they need to improve and modify their work
 - evaluate the appearance and function against their own design criteria
- Consider the views of others to improve their work

- Investigate and analyse a range of existing products
 - how much would the products cost to make
 - how innovative they are
 - how sustainable the end product is
- Evaluate their ideas and products against their own design criteria
 - evaluate a prototype of their design before making their final work
 - test and evaluate the final product
 - consider the use of the product when selecting materials
 - make a product which meets all the design criteria
- Consider the views of others

					<ul style="list-style-type: none"> • Identify some great designers and how their products have influenced the world -who designed and made existing products -when were these products designed and made 	<ul style="list-style-type: none"> • Consider the views of others to improve their work -take on constructive criticism and begin to incorporate their peers ideas, to improve their design • Identify some great designers and how their products have influenced the world -who designed and made existing products -when were these products designed and made -how well the products achieve their purpose e.g. material, methods of construction 	<ul style="list-style-type: none"> -begin to seek evaluation from others -begin to incorporate others ideas in to their own designs, to make it more functional • Identify some great designers and how their products have influenced the world -start to critically evaluate the quality of designs -how well do the products meet the users' needs and wants 	<ul style="list-style-type: none"> to improve their work -seek evaluation from others -begin to incorporate others ideas in to their own designs, to make it more functional • Identify some great designers and how their products have influenced the world -to critically evaluate the quality of designs -how well do the products meet the users' needs and wants
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- Children explore a variety of toys, exploring how they work and begin to use them purposefully.
- Begin to name tools and materials they have used.

- Children should know the simple working characteristics of material and components.
- With support children to coordinate actions to use technology, e.g. call a telephone number.

- Children should know the simple working characteristics of material and components.
- The movement of simple mechanism such as levers and sliders
- Freestanding structures can be made stronger, stiffer and more stable such as walls, buttresses; towers and framework e.g., weight bearing structures.
- 3D textile product can be assembled from two identical fabric shapes such as joining fabric shapes together using a variety of techniques including staple, lacing, and gluing and stitching.

- Students should know the simple working characteristics of material and components.
- Across key stage 2 pupils should know:
 - How to use learning from science to help design and make products that work.
 - How to use learning from mathematics to help design and make products that work.
 - The materials have both functional properties and aesthetics quality.
 - Materials can be combined and mixed to create more useful characteristics.
 - That mechanical and electrical systems have an input process and output.
 - The correct technical vocabulary for the project they are undertaking.
 - People should know:
 - How mechanical create movement such as levers and linkages.
 - How simple electrical circuits and components can be used to create functional products.
 - How to program the computer to control their products.

- Begin to know and understand the need for basic hygiene in cooking
- Begin to know about the need for a variety of foods in a diet.
- Begin to develop a food vocabulary.

- Work safely and hygienically.
- Begin to know about the need for a variety of foods in a diet.
- Be able to group familiar food products.
- Know about the Eatwell plate.
- Begin to know where food comes from.
- Continue to develop a food and nutrition vocabulary.
- Cut and mix ingredients with support.

- Work safely and hygienically.
- Understand the need for a variety of foods in a diet.
- Know about the Eatwell plate.
- Use the basic principles of healthy and varied diet to prepare dishes.
- Group familiar food products in different ways (e.g. fruit/veg, healthy / unhealthy)
- Begin to name major food groups.
- Cut and chop a range of ingredients (cut, chop, mix, peel)

- Work safely and hygienically.
- Use the basic principles of healthy and varied diet to prepare dishes.
- Cut, peel, grate, and chop a range of ingredients.
- Know about the Eatwell plate
- Understand where a variety of food comes from.

- Make healthy eating choices from and understanding of a balanced diet.
- Measure and weigh ingredients appropriately.
- Work safely and hygienically.
- Follow instructions / recipes.
- Join and combine a range of ingredients to create a healthy dish.
- Begin to understand the food groups on the Eatwell Plate.

- Personal Hygiene
- Measure and weigh ingredients appropriately.
- Analyse the taste, texture, smell and appearance of a range of foods from different countries and cultures.
- Work safely and hygienically.
- Understanding food waste and recycling.
- Health and safety in the kitchen

- Personal Hygiene.
- Knife skills
- explain the terms 'eating seasonally' and 'food miles'
- The benefits of seasonal vegetables.
- Join and combine a widening range of ingredients.
- Select and prepare foods for a particular purpose.
- Know where and how ingredients are grown and processed.
- Eatwell plate.
- Health and safety in the kitchen

- Health and Safety in the kitchen
- Personal Hygiene
- Food Hygiene- the 4Cs
- Sensory testing
- The Eatwell Guide
- 5-a-day message and government 8 guidelines
- A healthy balanced diet
- Weighing and Measuring
- Traffic-light labelling
- Knife skills (fruits and vegetables)
- Preparation and techniques
- Cooking methods
- Reflecting on own work and how to make improvements.
- Food groups: Carbohydrates/ Protein / Fat/ Vitamins/ Minerals