## **Design and Technology Progression**

Research, plan and design.

Year 1	- Identify some key features of an existing product.
rear 1	- Generate some ideas of their own.
	- Plan an outcome through pictures with labels/annotations.
	- Can explain their ideas orally.
Year 2	<ul> <li>Generate ideas through comparing existing products.</li> </ul>
rear 2	- Plan an innovative product.
	- Magpie features from existing products.
	- Identify appropriate tools and materials explaining their choices.
	- Describe their design by using pictures, diagrams and words.
	- Replicate the design of an existing product.
Year 3	<ul> <li>Plan and design using accurate diagrams and labels.</li> </ul>
	- Order the main stages of making their product.
	- Identify a design criteria and establish a purpose/audience for their product.
	- Create realistic plans e.g. what tools, equipment, materials and processes they will use.
	- Adapt or improve their original ideas
	- Explain why they have selected specific materials for their design/product
	- Begin to communicate influences of their design/product through clear explanations and designs
Year 4	- Plan and design using accurate diagrams and labels and to be able to give fluent explanations for their choices of materials.
	- Create a final design for their product based on initial ideas and research based on existing products and ideas.
	- Create a detailed plan considering their target audience, design criteria and intended purpose.
	- Use a range of sources e.g. books, internet, museums to influence their ideas.
	<ul> <li>Discuss how a range of factors influences design from different cultures.</li> </ul>
Year 5	<ul> <li>Identify their target audience and use this to generate ideas.</li> </ul>
	- Take a user's view into account when designing.
	<ul> <li>Produce a detailed step-by-step plan for their design method.</li> </ul>
	- Suggest some alternative design and compare the benefits and drawbacks to inform the design process and outcome.
	<ul> <li>Discuss how a range of factors influences designs and aesthetics from different cultures</li> </ul>
Year 6	<ul> <li>Apply a range of information to inform their design.</li> </ul>
	- Carry out market research to inform plans such as: surveys, interviews, questionnaires and internet research.
	- Develop design specifications while working within constraints e.g. time, resources or cost.
	- Justify their plan to someone else and communicate their design ideas using annotated sketches, ICT and other methods.
	<ul> <li>Consider culture and society in their designs – target demographic.</li> </ul>
	<ul> <li>Consider the use of the product when selecting materials.</li> </ul>
	<ul> <li>Research how their product could be marketed through packaging and advertising.</li> </ul>
	- Find evidence to support or refute whether their ideas and designs will/won't work using specific constraints e.g. time, resources ar
	costs

	Veen 1	Evaluin what they are realized
	Year 1	- Explain what they are making.
		- Select appropriate resources and tools.
		- Explain which tools they are using and why.
		- Know how to and use tools safely.
		- Use found items/junk-modelling to create.
		- Cut materials using scissors
		- Describe the materials using different words
		- Arrange pieces of the construction before building
		- Make a structure/model using different materials
		- Join materials and components together in different ways.
	Year 2	- Measure materials to use in a model or structure.
		- Select appropriate tools for a task.
		- Cut a variety of materials using a range of tools
		- Join materials together to create a product
		- Describe materials and their properties using a range of vocabulary
		- Make sensible choices of which material to use for their construction
		- Identify how to and make their structure stronger, stiffer or more stable
		- Create an item that fulfils a purpose.
		- Use processes that require precision.
	Year 3	- Use equipment and tools accurately and safely.
		- Select the most appropriate materials, tools and techniques to use.
		- Manipulate materials using a range of tools and equipment.
<b>A</b>		- Measure, cut and assemble with increasing accuracy.
ž		- Join materials effectively to build a product.
3		- Use a range of techniques to shape and mould materials.
ガ		- Join textiles of different types in a range of ways (knotting, gluing)
Manufacture		- Choose textiles both for their appearance and also qualities
Ţ	Year 4	<ul> <li>Use equipment and tools with increased accuracy and safety.</li> </ul>
2		- Select the most effective materials, tools and techniques to use.
		<ul> <li>Manipulate materials effectively and accurately using a range of tools and equipment.</li> </ul>
		<ul> <li>Measure, cut and assemble accurately explaining the process verbally.</li> </ul>
2		- Measure accurately to build effective structures.
		<ul> <li>Use a range of techniques to shape and mould.</li> </ul>
		<ul> <li>Experiment with a range of techniques to increase stability in a structure.</li> </ul>
		- Use finishing techniques, showing an awareness of audience. e.g. sanding, varnishing, glazing etc.
		<ul> <li>Consider which materials are fit for purpose and join them appropriately</li> </ul>
		- Devise a template or pattern for their product
		- Begin to use a range of simple stitches

	Year 5	- Choose appropriate tools and materials to ensure that the final product will appeal to the audience.
		- Utilise a range of tools and equipment with good accuracy and effectiveness within established safety parameters.
		- Refine their product after testing it
		- Measure accurately to ensure precision.
		- Refine and further improve their product
		- Use a range of fabrics to weave a pattern
		- Build an image using fabrics
		- Make a product which moves
	Year 6	- Choose appropriate tools and materials to ensure that the final product will appeal to the audience.
		- Utilise a range of tools and equipment with good accuracy and effectiveness within established safety parameters.
		- Identify and begin to explore specialist tools, techniques and processes.
		- Apply measurements accurately to scale, according to design plans, ensuring precision.
		- Refine and further improve their product.
		- Use a sewing machine to join fabric and embellish fabric.
	Year 1	- Describe how their product works.
		- Identify successes and next steps.
		- Make links between their own designs and products and another designer
		- Evaluate their own and others' artwork and make suggestions for improvement
	Year 2	- Assess how well their product works through testing.
		- Explain what they would change if they were going to make their product again.
		<ul> <li>Explain what prior knowledge helped them to form their designs.</li> </ul>
		<ul> <li>Make comparisons between their own artwork and other artists or designers</li> </ul>
		<ul> <li>Articulate what they are trying to express in their own designs and products</li> </ul>
a a		<ul> <li>Make suggestions for improvement in their own and others' products</li> </ul>
Ť	Year 3	- Adapt or improve their own ideas.
<u>a</u>		- Think about their ideas as they make progress and be willing to make changes if this helps them to improve their work.
		- Assess how well their products work in relation to the purpose.
Q		- Explain how they could change their design to make it better.
Evaluate		- Evaluate their learning process and make suggestions for improvement in their own and others' product/ design.
<b>–</b>	Year 4	- Think about their ideas as they progress and alter the design to make improvements.
		<ul> <li>Asses how well their product works in relation to the design criteria and the intended purpose.</li> </ul>
		- Explain how they could improve their design and how their improvement would affect the original outcome.
		- Critique their own and others' design/product throughout the learning process to develop and support each other
	Year 5	- Create and evaluate a prototype before creating a final outcome.
		- Continuously check that their design is effective and fit for purpose.
		- Assess how well their product works in relation to the design criteria and the intended purpose and suggest improvements.
		- Evaluate appearance and function against the original design criteria.
		- Critique their own and others' design/product throughout to develop and support each other and offer solutions to design problems.

	Year 6	- Create and evaluate a prototype before creating a final outcome.
		- Test and evaluate their final product.
		<ul> <li>Explore if different resources could have improved their product, explaining what it would have improved.</li> </ul>
		<ul> <li>Research and explore what information they would need to make improvements.</li> </ul>
		<ul> <li>Ensure their product meets all design criteria and explain why it does.</li> </ul>
		- Identify and understand the impact the product has on individuals, society and the environment.
		<ul> <li>Identify and address their own design problems during the construction process.</li> </ul>
		- Critique, evaluate and demonstrate that their product is strong and fit for purpose.
		- Refine their product after testing it and explain what they have improved and why.
		- Experiment with combining different materials exploring what makes them effective
		- Compare their design to X, explaining the effectiveness of both products mechanical components
		- Explain their own design or construction and what has influenced their choices
	Year 1	- Explain that some ingredients need to be prepared before they can be eaten
		- Explain that some equipment has a special job and know what that special job is, e.g. colander, peeler.
C		- Understand that food is a basic requirement of life
ō		- Understand that we need food to grow, be active and maintain health
Ĭ		- Talk about foods they like and dislike with reasons
Ē		<ul> <li>Identify a wide variety of fruit and vegetables available which can be grouped and individually named</li> </ul>
Ŧ		- Make food choices that are based on a number of factors, such as health, event, hygiene, growing
nutrition	Year 2	- Use a range of simple equipment
		- Use basic cooking skills to make a dish
7		<ul> <li>Explain the hygiene and safety rules, which need to be followed before, during and after cooking</li> </ul>
and		<ul> <li>Explain that people eat different food and meals according to the time of day, who they are, where they are from and the occasion</li> </ul>
7		<ul> <li>Know that everyone should eat at least 5 portions of fruit and vegetables every day</li> </ul>
		- Use basic food handling, hygienic practices and personal hygiene, including how to control risk by following simple instructions
health		<ul> <li>Experience food from their own heritage and explain their opinion about it.</li> </ul>
æ		<ul> <li>Explain the part that food plays in special social occasions</li> </ul>
Ğ		- Show a deeper understanding of the country they are studying, their food and customs
Ž		<ul> <li>Consider that food processing can affect appearance, texture, odour and taste of food</li> </ul>
		<ul> <li>Make food choices that are based on a number of factors, such as health, event, hygiene, growing</li> </ul>
ood,	Year 3	<ul> <li>Understand that diets around the world are based on similar food groups</li> </ul>
9	Teal 5	<ul> <li>Know and find out that food is prepared in different ways due to a number of factors, including country, culture, custom, religion,</li> </ul>
С Ш		beliefs and dietary requirement.
		- Identify and plan the equipment/tools needed and give reasons why.
0		
Ŧ		<ul> <li>Use the eat-well plate and consider the needs of different people when planning and cooking food</li> <li>Sect a selection of foods into the pat well food groups</li> </ul>
		- Sort a selection of foods into the eat-well food groups
nutriti.		<ul> <li>Recognise the 5 groups from the eat-well plate</li> <li>But together a belonged most by the eating foods from different food groups</li> </ul>
- 2		<ul> <li>Put together a balanced meal by choosing foods from different food groups</li> </ul>

pue

	<ul> <li>Assess a healthy plate and improve, explaining their choices</li> </ul>
	<ul> <li>Suggest and demonstrate healthier ways to prepare and cook foods</li> </ul>
	<ul> <li>Read and interpret basic nutrition information on food packaging when making choices</li> </ul>
	- Research, plan and prepare food appropriate for a range of different requirements
	<ul> <li>Consider that people have different preferences and dietary requirements</li> </ul>
	<ul> <li>Understand the important social aspects of food and how families in the past used to eat</li> </ul>
	<ul> <li>Assess how well their recipe/meal works in relation to the purpose</li> </ul>
	- Explain how they could change their recipe to make it better Assess how well their meal/recipe works in relation to the design
	criteria and the intended purpose
	- Explain how they could improve their recipe and how their improvement would affect the original outcome
Year 4	- Know that food is prepared in different ways due to a number of factors, including country, culture, custom and religion
	<ul> <li>Use the eat-well plate and consider the needs of different people when planning and cooking food</li> </ul>
	<ul> <li>Suggest and demonstrate healthier ways to prepare and cook foods</li> </ul>
	<ul> <li>Read and interpret basic nutrition information on food packaging when making choices</li> </ul>
	<ul> <li>Identify the taste and texture of the product</li> </ul>
	<ul> <li>Experience food from a different culture and comment on their opinions</li> </ul>
	<ul> <li>Assess how well their recipe/meal works in relation to the purpose</li> </ul>
	<ul> <li>Explain how they could change their recipe to make it better</li> </ul>
	- Assess how well their meal/recipe works in relation to the design criteria and the intended purpose
Year 5	- Write and follow recipes
	- Explain the importance of hygienic food preparation and storage
	- Weigh and measure accurately
	<ul> <li>Adapt a recipe by adding or substituting an ingredient</li> </ul>
	- Change ingredients by using a heat source
	- Explain the hygiene and safety rules, which need to be followed before, during and after cooking and the consequences if these rules
	are not followed.
	- Know that improperly handled, stored and prepared food can cause illness.
	- Know that poor hygiene when cooking leads to the spread of bacteria, infection and fungi.
	- Know how to prevent contamination when cooking and handling food.
	- Recognise that there is a wide variety of food products from different cultural traditions
	- Recognise that different food products are an important part of a balanced diet
	- Recognise that food around the world is prepared in different ways, sometimes because of culture, customs and religion
	- Know about a country and how its customs and culture can affect the food people eat
	- Evaluate food based on its purpose, i.e. for exercise
Year 6	- Demonstrate an extended range of food skills and techniques
	- Select tools and techniques that are appropriate to complete a task.
	- Demonstrate good personal hygiene and safety when cooking
	- Recognise that the amount of energy and nutrients provided by food depends on the portion eaten

- Evaluate food based on its purpose, i.e. for exercise
- Explain why food is important beyond health and nutrition and make choices for this
- Use food as a tool to bring people together
- Make choices about ingredients, recipes and portion.