	Foundation 2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Developing, planning and communicating ideas.	Explain what they making and which materials they have used Select materials from a small range that will meet a simple design criteria e.g. rough Select and name the tools needed e.g scissors and paper Explore ideas by rearranging materials Describe simple models or drawings of ideas and intentions Discuss their work as it develops	Begin to draw on their own experiences to help generate ideas Begin to understand the development of existing products: What they are for, how do they work, what materials have been used Start to suggest ideas and explain what they are going to do Identify a target group for what they intend to design and make Model their ideas on card and paper Develop their design ideas by using their research	Start to generate ideas by drawing on their own and other people's experiences Develop their design ideas through discussions, observation, drawing and modelling Identify a purpose for what they intend to design and make Identify simple design criteria Make simple drawings and label parts	Generate ideas for an item, considering its purpose and the user/s Identify a purpose and establish criteria for a successful product Plan the order of their work before starting Explore, develop and communicate design proposals by modelling ideas Make drawings with labels when designing Learn about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products Start to understand whether products can be recycled or reused	Generate ideas, considering the purposes for which they are designing (Stone Age monuments, Linkages) Make labelled drawings from different views showing specific features (Stone Age monuments, Linkages) Develop a clear idea of what has to been done, planning how to use materials, equipment and processes.(Stone Age monuments, Linkages) Be able to suggest alternative methods of making, if the first attempts are unsuccessful(Stone Age monuments, Linkages) Evaluate products and identify criteria that can be used for their own designs(Stone Age monuments, Linkages) Learn about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products	Generate ideas through brainstorming and identify a purpose for their product Draw up a specification for their design – link with Mathematics and Science Develop a clear idea of what has to been done, planning how to use materials, equipment and processes. Be able to suggest alternative methods of making, if the first attempts are unsuccessful Apply a range of finishing techniques, including those from art and design Use results of investigations, information sources, including ICT when developing ideas Start to understand how much products cost to make, how sustainable and innovative they are and the impact products have beyond their intended purpose	Communicate their ideas through detailed labelled drawings Develop a design specification – link with Mathematics and Science Explore, develop and communicate aspects of their design proposals by modelling their ideas in a variety of ways Accurately, apply a range of finishing techniques, including those from art and design Plan the order of their work choosing appropriate materials, tools and techniques Be able to suggest alternative methods of making, if the first attempts are unsuccessful Know how much products cost to make, how sustainable and innovative they are and the impact products have beyond their intended purpose
	Foundation 2	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**

| Working with tools, equipment, materials and components to make quality products | Begin to create their design using basic techniques

Start to build structures, joining components together

Look at simple hinges, wheels and axles. Use technical vocab' when appropriate.

Begin to use scissors to cut straight and curved edges and hole punches to punch holes.

Explore using/holding basic tools such as a saw or hammer.

Use adhesives to join materials. | Make their design using appropriate techniques

Begin to 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.

With help measure, mark out, cut and shape a range of materials

Use tools e.g. scissors and a hole punch safely

Assemble, join and combine materials and components together using a variety of temporary methods e.g. glues or masking tape

Use simple finishing techniques to improve the appearance of their product | Begin to select tools and materials; use vocab' to name and describe them

Build structures, exploring how they can be made stronger, stiffer and more stable.

Measure, cut and score with some accuracy

Use hand tools safely and appropriately

Assemble, join and combine materials in order to make a product

Cut, shape and join fabric to make a simple garment. Use basic sewing techniques

Choose and use appropriate finishing techniques | Select tools and techniques for making their product e.g. i.e. construction materials, mechanical components and electrical components.

Measure, mark out, cut, score and assemble components with more accuracy

Start to understand that mechanical and electrical systems have an input, process and output.

Start to understand that mechanical systems such as levers and linkages or pneumatic systems create movement.

Work safely and accurately with a range of simple tools

Think about their ideas as they make progress and be willing change things if this helps them improve their work

Measure, tape or pin, cut and join fabric with some accuracy

Use finishing techniques strengthen and improve the appearance of their product using a range of equipment including ICT | Select appropriate tools and techniques for making their product(Stone Age monuments, Linkages)

Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques(Stone Age monuments, Linkages)

Know how mechanical systems such as cams or pulleys or gears create movement.

Understand how more complex electrical circuits and components can be used to create functional products.(Iron Man-electricity)

Continue to learn how to program a computer to monitor changes in the environment and control their products.

Join and combine materials and components accurately in temporary and permanent ways(Stone Age monuments, Linkages)

Understand how to reinforce and strengthen a 3D framework.(Stone Age monuments, Linkages)

Sew using a range of different stitches, weave and knit

Measure, tape or pin, cut and join fabric with some accuracy | Select appropriate materials, tools and techniques

Understand how mechanical systems such as cams or pulleys or gears create movement.

Know how more complex electrical circuits and components can be used to create functional products and how to program a computer to monitor changes in the environment and control their products.

Understand that mechanical and electrical systems have an input, process and output.

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 the product

Use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT. | Select appropriate tools, materials, components and techniques

Assemble components 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 create a product

Achieve a quality product

Know how to reinforce and strengthen a 3D framework. Understand how mechanical systems such as cams or pulleys or gears create movement.

Know how more complex electrical circuits and components can be used to create functional products and how to program a computer to monitor changes in the environment and control their products.

Understand that mechanical and electrical systems have an input, process and output.

Use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT. |
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	Foundation 2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Evaluating processes and products	Say what they like and do not like about items they have made and attempt to say why. Begin to talk about their designs as they develop and identify good and bad points.	Evaluate their product by discussing how well it works in relation to the purpose Evaluate their products as they are developed, identifying strengths and possible changes they might make Evaluate their product by asking questions about what they have made and how they have gone about it	Evaluate against their design criteria Evaluate their products as they are developed, identifying strengths and possible changes they might make Talk about their ideas, saying what they like and dislike about them	Evaluate their product against original design criteria e.g. how well it meets its intended purpose Disassemble and evaluate familiar products	Evaluate their work both during and at the end of the assignment(Stone Age monuments, Linkages) Evaluate their products carrying out appropriate tests(Stone Age monuments, Linkages)	Evaluate a product against the original design specification Evaluate it personally and seek evaluation from others	Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests Record their evaluations using drawings with labels Evaluate against their original criteria and suggest ways that their product could be improved

	Foundation 2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Food and Nutrition	Begin to develop a food vocabulary using taste, smell, texture and feel. Explore familiar food products e.g. fruit and vegetables. Stir, spread, knead and shape a range of food and ingredients. Begin to work safely and hygienically. Start to think about the need for a variety of foods in a diet. Measure and weigh food items, non-statutory measures e.g. spoons, cups.	Begin to understand that all food comes from plants or animals. Explore the understanding that food has to be farmed, grown elsewhere (e.g. home) or caught. Start to understand how to name and sort foods into the five groups in 'The Eat well plate' Begin to understand that everyone should eat at least five portions of fruit and vegetables every day. Know how to prepare simple dishes safely and hygienically, without using a heat source. Know how to use techniques such as cutting, peeling and grating.	Understand that all food comes from plants or animals. Know that food has to be farmed, grown elsewhere (e.g. home) or caught. Understand how to name and sort foods into the five groups in 'The Eat well plate' Know that everyone should eat at least five portions of fruit and vegetables every day. Demonstrate how to prepare simple dishes safely and hygienically, without using a heat source. Demonstrate how to use techniques such as cutting, peeling and grating.	Start to know that food is grown, reared and caught in the UK, Europe and the wider world. Understand how to prepare and cook a variety of savoury dishes safely and hygienically. Begin to understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. Start to understand that a healthy diet is made up from a variety and balance of different food and drink, as depicted in 'The Eat well plate' Begin to know that to be active and healthy, food and drink are needed to provide energy for the body.	Start to know that food is grown, reared and caught in the UK, Europe and the wider world.(Stone Age bread) Understand how to prepare and cook a variety of savoury dishes safely and hygienically.(Stone Age bread) Know how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. Know that a healthy diet is made up from a variety and balance of different food and drink, as depicted in 'The Eat well plate'(Science and PE) Know that to be active and healthy, food and drink are needed to provide energy for the body.(Science and PE)	Understand that food is grown, reared and caught in the UK, Europe and the wider world. Understand how to prepare and cook a variety of savoury dishes safely and hygienically. Begin to understand that seasons may affect the food available. Understand how food is processed into ingredients that can be eaten or used in cooking. Know how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking Begin to understand that different food and drink contain different substances – nutrients, water and fibre – that are needed for health.	Know that food is grown, reared and caught in the UK, Europe and the wider world. Know how to prepare and cook a variety of savoury dishes safely and hygienically. Understand that seasons may affect the food available. Know how food is processed into ingredients that can be eaten or used in cooking. Know different food and drink contain different substances – nutrients, water and fibre – that are needed for health.