DT Progression

Y1	Cooking and Nutrition- Fruit salad- Cutting, peeling, grating, washing, juicing	Materials- Joining and finishing techniques, tools, fabrics and components, template, pattern pieces, mark out, join, decorate, finish	Mechanisms- Sliders – straight line. Levers- curve.
NATIONAL CURRICULUM	**Design** -Design appealing products for a particular user based on simple design criteria. -Generate initial ideas and design criteria through investigating a variety of fruit and vegetables. - Communicate these ideas through talk and drawings. **Make** -Use simple utensils and equipment to e.g. peel, cut, slice, squeeze, grate and chop safely. -Select from a range of fruit and vegetables according to their characteristics e.g. colour, texture and taste to create a chosen product. **Evaluate** -Taste and evaluate a range of fruit and vegetables to determine the intended user's preferences. -Evaluate ideas and finished products against design criteria, including intended user and purpose. **Technical knowledge- cooking and nutrition** -Understand where a range of fruit and vegetables come from e.g. farmed or grown at home - Understand and use basic principles of a healthy and varied diet to prepare dishes, including how fruit and vegetables are part of The eat well plate. -Know and use technical and sensory vocabulary relevant to the project.	**Design** - Generate ideas by drawing on their own and other people's experiences - Develop their design ideas through discussion, 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 **Make** - Begin to select tools and materials; use vocab' to name and describe them 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 **Evaluate** - 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 **Materials- textiles** - Understand how simple 3-D textile products are made, using a template to create two identical shapes.	**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- Mechanisms Summer** - explore and use mechanisms [for example, levers, sliders], in their products.

DT Progression

		- Understand how to join fabrics using different techniques e.g. running stitch, glue, over stitch, stapling. - Explore different finishing techniques - Know and use technical vocabulary relevant to the project.	
Y2	**Structures- Cutting, joining, shaping, finishing, combining different materials, exploring concepts of strength, stiffness and stability.**	**Cooking and Nutrition-**	**Mechanisms- Wheels and axles which turn. Winding mechanisms.**
NATIONAL CURRICULUM	**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- Structures Autumn** - build structures, exploring how they can be made stronger, stiffer and more stable.	**Design** Design appealing products for a particular user based on simple design criteria.• Generate initial ideas and design criteria through investigating a variety of fruit and vegetables.• Communicate these ideas through talk and drawings. **Make** Use simple utensils and equipment to e.g. peel, cut, slice, squeeze, grate and chop safely.• Select from a range of fruit and vegetables according to their characteristics e.g. colour, texture and taste to create a chosen product. **Evaluate** Taste and evaluate a range of fruit and vegetables to determine the intended user's preferences.• Evaluate ideas and finished products against design criteria, including intended user and purpose. **Cooking and Nutrition – Spring** Understand where a range of fruit and vegetables come from e.g. farmed or grown at home.• Understand and use basic principles of a healthy and varied diet to prepare dishes, including how fruit and vegetables are part of The eat well plate.• Know and use technical and sensory vocabulary relevant to the project.	**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- Mechanisms Summer**

DT Progression

		-	- explore and use mechanisms [for example, wheels and axles], in their products
YEAR 3	Materials and Construction- Explore cross sections of products to see how they attach, join, assemble. Fastenings, seams, applique, stitch, allowance, compartment.	**Programming and electronics**	**Complex structures- Cutting, joining, measuring, scoring, assembling, strengthening.**
NATIONAL CURRICULUM	**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. **Make** • select from and use a wider range of materials and components, including construction materials, textiles, 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.	**Design** Gather information about needs and wants, and develop design criteria to inform the design of products that are fit for purpose, aimed at particular individuals or groups.• Generate, develop, model and communicate realistic ideas through discussion and, as appropriate, annotated sketches, cross-sectional and exploded diagrams. **Make** Order the main stages of making.• Select from and use tools and equipment to cut, shape, join and finish with some accuracy.• Select from and use materials and components, including construction materials and electrical components according to their functional properties and aesthetic qualities. **Evaluate** Investigate and analyse a range of existing battery-powered products.• Evaluate their ideas and products against their own design criteria and identify the strengths and areas for improvement in their work.	**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. **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, ingredients, according to their functional properties and aesthetic qualities **Evaluate**

DT Progression

	• understand how key events and individuals in DT have helped shape the world.	**Technical Knowledge** Understand and use electrical systems in their products, such as series circuits incorporating switches, bulbs and buzzers.• Apply their understanding of computing to program and control their products.• Know and use technical vocabulary relevant to the project.	• 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 DT have helped shape the world **Technical knowledge- apply their understanding of how to strengthen, stiffen and reinforce more complex structures**
YEAR 4	**Cooking and Nutrition-Peeling, chopping, slicing, grating, mixing, spreading, kneading, baking. Using tools such as – round-ended knives, vegetable peelers, apple corers, strawberry hullers and graters.**	**CAD (Computer Aided Design)**	**Mechanical systems- Creating movement e.g. Linear – in a straight line. Reciprocating – backwards and forwards in a straight line e.g. a slider. Rotary – round and round e.g. a wheel, cam, pulley, gear wheel. Oscillating – backwards and forwards in an arc e.g. a lever.**
NATIONAL CURRICULUM	**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	- 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	**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

DT Progression

	- 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 **Cooking and nutrition- Autumn** - understand and apply the principles of a healthy and varied diet - prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques - understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.	- 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- Spring - apply their understanding of computing to program, monitor and control their 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- Summer** - understand and use mechanical systems in their products [for example, gears, pulleys, cams.)
YEAR 5	**Textiles**	**Cooking and Nutrition- Peeling, chopping, slicing, grating, mixing, spreading, kneading, baking. Mixing and combining ingredients. Rubbing in to mix fat and flour.**	**Electrical components**
NATIONAL CURRICULUM	Design • Generate innovative ideas by carrying out research including surveys, interviews and questionnaires.• Develop, model and communicate ideas through talking, drawing, templates, mock-upsand prototypesand, where appropriate,computer-aided design.• Design purposeful, functional, appealing products for the intended user that are fit for purpose based on a simple design specification. Make • Produce detailed lists of equipment and fabrics relevant to their tasks.• Formulate step-by-step plans and,if appropriate,allocate tasks within a team.• Select from and use a range of tools and equipment to make products that are accurately assembled and well finished. Work within the constraints of time, resources and cost. Evaluate • Investigate and analyse textile products linked to their final product.• Compare the final product to the original design specification.• Test products with intended user and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose.• Consider the views of others to improve their work. Technical Knowledge • A 3-D textile product can be made from a combination of accurately made pattern pieces, fabric shapes and different fabrics.• Fabrics can be strengthened, stiffened and reinforced where appropriate.	- **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 - E**valuate** - 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 - **Cooking and nutrition- Autumn**	**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

DT Progression

		- understand and apply the principles of a healthy and varied diet - prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques - understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.	**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- Spring and Summer** - understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
YEAR 6	**Materials and construction, woodwork -Progressing from Year 3 to sanding, filing, permanent joins, nailing, gluing.**	**Mechanical systems**	**Using CAD in textiles**
NATIONAL CURRICULUM	**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,	Design Generate innovative ideas by carrying out research using surveys, interviews, questionnaires and web-based resources.•Develop a simple design specification to guide their thinking.• Develop and communicate ideas through discussion, annotated drawings, exploded drawings and drawings from different views. Make Produce detailed lists of tools, equipment and materials. Formulate step-by-step plans and,if appropriate,allocate tasks within a team.• Select from and use a range of tools and equipment to make products that that are accurately assembled and well finished. Work within the constraints of time, resources and cost. Evaluate Compare the final product to the original design specification.• Test products with the intended user, where safe and practical, and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose. • Consider the views of others to improve their work.• Investigate famous manufacturing and engineering companies relevant to the project.	Design Generate innovative ideas by carrying out research using surveys, interviews, questionnaires and web-based resources.•Develop a simple design specification to guide their thinking.• Develop and communicate ideas through discussion, annotated drawings, exploded drawings and drawings from different views. Make Produce detailed lists of tools, equipment and materials. Formulate step-by-step plans and,if appropriate,allocate tasks within a team.• Select from and use a range of tools and equipment to make products that that are accurately assembled and well finished. Work within the constraints of time, resources and cost. Evaluate Compare the final product to the original design specification.• Test products withtheintended user, wheresafe and practical, and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose. • Consider the views of others to improve their work.• Investigate famous manufacturing and engineering companies relevant to the project.

DT Progression

	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- Autumn** - woodwork- apply their understanding of how to strengthen, stiffen and reinforce more complex structures	Technical Knowledge Understand that mechanical systems have an input, process and an output.• Understand how cams can be used to produce different types of movement and change the direction of movement.• Know and use technical vocabulary relevant to the project. -	Technical Knowledge Understand that mechanical systems have an input, process and an output.• Understand how cams can be used to produce different types of movement and change the direction of movement.• Know and use technical vocabulary relevant to the project. -