Year 6 Design and Technology Progression of Knowledge & Skills

National Curriculum	Year 6 Progression of Knowledge and Skills
Developing planning and communicating ideas	• I can generate, develop, model and communicate my ideas through discussion, annotated sketches, such as: pattern pieces. • I can use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose. • I can generate, develop, model and communicate their ideas through discussion, annotated sketches, such as: **cross- sectional** and exploded diagrams, prototypes. • I can plan a nutrient rich menu based on WWII rationing availability.
Working with tools, equipment, materials and components to make quality products	• I can accurately apply a range of finishing techniques, including those from art and design. • I can use tools safely and accurately. • I can sew materials for a purpose. • I can confidently select appropriate components and use them. • I aim to make and to achieve a quality product • I can demonstrate when making modifications as they go along – referring back to plans • I can assemble components to make working models. • I can use **electrical products** to produce an item. • I know how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source. • I can plan and make a soup dish applying a range of techniques such as peeling, chopping, slicing, grating and mixing.
Evaluating processes and products	• I can evaluate their work both during and at the end of the assignment. • I can evaluate against their original criteria and suggest ways that their product could be improved. • I can evaluate their product as a **design for manufacture** • I can suggest alternative methods of making it if the **first attempts** fail. • I can evaluate my products, identify strengths and areas for development, and carry out appropriate tests. • I can evaluate my dish, reflecting on taste, texture and appearance.
Food and Nutrition	• I understand that seasons may affect the food available. • I can plan a nutrient rich menu based on WWII rationing availability. • I understand how food is processed into **ingredients** that can be eaten or used in cooking. • I know how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source. • I can plan and make a soup dish applying a range of techniques such as peeling, chopping, slicing, grating and mixing. • I can evaluate my dish, reflecting on taste, texture and appearance.

Year 6 Progression of Knowledge and Skills	
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**	**Design For Manufacture: Bags** ● I can generate, develop, model and communicate my ideas through discussion, annotated sketches, such as: pattern pieces. ● I can use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose. ● I can accurately apply a range of finishing techniques, including those from art and design. ● I know how much products cost to make, how **sustainable and innovative** they are and the impact products have beyond their intended purpose.
	Creative Risk: Electrical Products ● I can generate, develop, model and communicate their ideas through discussion, annotated sketches, such as: **cross- sectional** and exploded diagrams, prototypes.
	Food: Soup ● I understand that seasons may affect the food available. ● I can plan a nutrient rich menu based on WWII rationing availability. ● I understand how food is processed into **ingredients** that can be eaten or used in cooking.
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**	**Design For Manufacture:** ● I can use tools safely and accurately. ● I can sew materials for a purpose.
	Creative Risk: ● I can confidently select appropriate components and use them. ● I aim to make and to achieve a quality product ● I can demonstrate when making modifications as they go along – referring back to plans ● I can assemble components to make working models. ● I can use **electrical products** to produce an item.
	Food: ● I know how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source. ● I can plan and make a soup dish applying a range of techniques such as peeling, chopping, slicing, grating and mixing.
Evaluating **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**	**Design For Manufacture:** ● I can evaluate their work both during and at the end of the assignment. ● I can evaluate against their original criteria and suggest ways that their product could be improved. ● I can evaluate their product as a **design for manufacture** ● I can suggest alternative methods of making it if the **first attempts** fail.
	Creative Risk: ● I can evaluate my products, identify strengths and areas for development, and carry out appropriate tests.
	Food: ● I can evaluate my dish, reflecting on taste, texture and appearance.
Technical knowledge	**Design For Manufacture:**

apply their understanding of how to strengthen, stiffen and reinforce more complex structures understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] apply their understanding of computing to program, monitor and control their products.	**Creative Risk:** • I know how more complex **electrical circuits** and components can be used to create **functional products** **Food:**

Vocabulary: (in addition to, and building on previous year- see also BOLD items above)
dried, preserved
Integral, design for purpose, set, stage, theatre, aesthetic, mood, tone
Canvas, tote, re-use, recycle
Electrical, wires, switches, buzzers, bulbs, motor

Assessment End Points Year 6	
Knowledge	**Skills**
• I know that different joining techniques can provide necessary support (tote bags). • I know how more complex **electrical circuits** and components can be used to create **functional products.**	• I can prepare vegetables that are seasonal, using a variety of different techniques and can be used in a balanced diet. • I can use a range of cooking techniques: peeling, chopping, slicing, cooking on heat. • I can evaluate my work (against a criteria) throughout the design process and make adjustments as necessary. • I can measure, mark out, and cut fabrics with precision using a variety of tool e.g. steel rule.