DESIGN and TECHNOLOGY

Year 3	Year 4	Year 5	Year 6
Structure: Constructing a Castle • Pupils learn more advanced construction techniques and plan for complex arrangements of structures with continual emphasis on evaluating throughout • (paper engineering/paper folding techniques) **Food: Eating Seasonally** • Pupils learn about seasonality and how the climate a food is grown in can alter the way it tastes and make a crumble and tart using seasonal ingredients • Knowing what foods are in season and when Understanding the benefits of foods by their colour. • Knowing how climate alters the sweetness of food. **Mechanisms: Pneumatic Toys** • Pupils examine pneumatic systems using syringes and balloons then	**Electrical Systems: Torches** • Pupils are introduced to electricity and electrical safety before making a simple electric circuit to create a functioning torch • Technical batteries associated with electricity and batteries **Food: Adapting a recipe** • Pupils adapt a recipe by adding or altering the ingredients and then work in groups to create a final design that falls within a set budget and design brief • Understanding the costs behind professional food preparation • Understanding the factors that contribute to product design **Textiles: Fastening a Purse** • Pupils research different types of fabric fastenings before deciding which they want to use in their design for a book sleeve • Understanding stitches and their benefits • Knowing how to use templates	**Structures: Bridges** • Pupils explore and experiment with a range of different bridge structures, forces and components involved in bridge building, before designing and making their own to test to destruction • Understanding the importance of compression and tension in bridge structures **Food: What could be healthier** • Pupils adapt a bolognese recipe by adding or altering ingredients and learn about the ethical and hygienic issues of food • Know where meat comes from and understand ethical issues around beef • Know nutritional values of packaged food **Mechanisms: Automata Toys:** • Pupils develop their woodworking skills and explore cams to design and make mechanical window displays • Measuring, marking and cutting woodwork accurately	**Electrical Systems: Steady Hand Game** • Pupils create electromagnetic toys and more complex electronic circuits to create a steady hand game **Food: Come Dine with Me** • Working in groups, children research and prepare a three-course meal that will be taste tested and scored as well as researching the journey of their main ingredient, from 'farm to fork' **Textiles: Stuffed Toys** • Pupils learn blanket stitch and then design and make 3D stuffed toys • Understand constructions methods for 3D shapes Knowing how to create a hidden seam

apply their understanding of mechanical systems to create their own pneumatic toys • Understanding how pneumatic systems work •	•	• Naming types of cam- knowing how cams impacts follower movements	