Orford CEVA Primary School

Design and Technology

Upper KS2 (5+6)

Mechanisms Gears and cams Design and make fairground rides. Use prototypes and cross sectional diagrams to communicate designs.	**Cooking and nutrition**	**Computer Aided design** Use Tinkercad to design a 3D playground. Determine design criteria and evaluate products against them.	**Cooking and nutrition**	**Wood work** Select appropriate tools to cut, shape and finish a product. Cut materials with precision and refine finish with appropriate tools.	**Cooking and nutrition**
Textiles Textiles. Cut, shape, join, embellish and finish a product. Draw string bag	**Cooking and nutrition**	**Frame structures:** Strengthen, stiffen and reinforce structures. Investigate and analyse existing products.	**Cooking and nutrition**	**Electrical systems:** Circuits incorporating buzzers and motors. Make products through stages of prototypes, making continual refinements Board game	**Cooking and nutrition**

Lower KS2 (3+4)

Mechanisms Pulley systems Use sketches and diagrams to communicate ideas. Evaluate products and consider the ideas of others to improve	**Cooking and nutrition**	**Computing** Write code to program, monitor and control a product.	**Cooking and nutrition**	**Electrical systems:** Illuminated signs. Construct circuits using bulbs. Dissemble products to see how they work.	**Cooking and nutrition**
Textiles Join textiles with appropriate stitching. Choose textiles according to their aesthetic qualities.	**Cooking and nutrition**	**Complex Structures** Kites. Measure and mark out to the nearest ½ cm. Choose suitable materials according to their properties.	**Cooking and nutrition**	**Woodwork** Use tools accurately and with control. Cut and join materials accurately by choosing suitable techniques and tools.	**Cooking and nutrition**

KS1 Y2

Mechanisms Levers and sliders Explore and use mechanisms. Create a product using levers and sliders.	**Cooking and nutrition**	**Structures** Build structures to a design, exploring how they can be made stronger and more stable.	**Cooking and nutrition**	**Mechanisms** Wheels and Axels Design a wheeled toy with a clear purpose and an intended user. Plan and make products, including mock ups	**Cooking and nutrition**

KS1 Y1

Construction Materials Design and construct using a range of construction materials	**Building structures** Build structures to a design. Select tools and materials to cut, shape and join. Cut materials safely.	**Textiles** Shape and cut textiles using templates. Decorate textile products using a range of techniques.	**Mechanisms** Sliders and hinges. Lift the flap books.	**Using tools and equipment.** Select from a wide range of tools and materials to cut, glue, hinge and strengthen.	**Textiles: Glove Puppets** Join textiles using a running stitch. Evaluate product against design criteria

BIG IDEAS Key: Develop creative, technical and practical expertise, Build understanding and skills to design and make products, Understand and apply nutrition and how to cook, Critique, evaluate and test products.