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Year 1	**Mechanisms: Moving storybook** • Identify whether a mechanism is a side-to-side slider or an up-and-down slider and determine what movement the mechanism will make. • Clearly label drawings to show which parts of their design will move and in which direction. • Make a picture, which meets the design criteria, with parts that move purposefully as planned. • Evaluate the main strengths and weaknesses of their design and suggest alterations.	**Textiles: Easter puppet design** • Join fabrics together using pins, staples or glue. • Design a puppet and use a template. • Join their two puppets' faces together as one. • Decorate a puppet to match their design.	**Structures: Windmills** • Identify some features that would appeal to the client (a mouse) and create a suitable design. • Explain how their design appeals to the mouse. • Make stable structures, which will eventually support the turbine, out of card, tape and glue. • Make functioning turbines and axles that are assembled into the main supporting structure. • Say what is good about their windmill and what they could do better.
Year 2	**Cooking and nutrition: A balanced diet** • Name the main food groups and identify foods that belong to each group. • Describe the taste, texture and smell of a given food. • Think of four different wrap ideas, considering flavour combinations. • Construct a wrap that meets the design brief and their plan.	**Structures: A sturdy chair** • Identify man-made and natural structures. • Identify stable and unstable structural shapes. • Contribute to discussions. • Identify features that make a chair stable. • Work independently to make a stable structure, following a demonstration. • Explain how their ideas would be suitable for Baby Bear.	**Textiles: Pouches** • Sew a running stitch with regular-sized stitches and understand that both ends must be knotted. • Prepare and cut fabric to make a pouch from a template. • Use a running stitch to join the two pieces of fabric together. • Decorate their pouch using the materials provided.

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		• Produce a model that supports a teddy, using the appropriate materials and construction techniques. • Explain how they made their model strong, stiff and stable.	
Year 3	**Design Skills – Working to a brief** •Task analysis •Product Analysis •How to write a specification •Initial ideas and how to annotate •How to write an evaluation	**Communicating designs – CAD** •Basics of tinkercad software •How to convert 2D drawings to 3D •Modelling 3D products in CAD •Developing a 3D design in CAD •Communicating their design	**Mechanisms – Moving Book** Levers and Linkages •What are levers? •Practical experiment of linkages •Initial ideas of pop up book using mechanisms •Development of pop up book •Making pop up book •Evaluation
Year 4	**Food – Healthy and Varied Diet** •The diet •Eatwell guide •Energy •Nutrients – Macro and Micro •Digestion •Making Activity – Crunchy chickpea sandwich	**Textiles - 2D shape to 3D shape** • Design brief and task analysis • Stitches skills • Design specification and Design ideas • Making – pattern cutting • Making - embellishments • Making - Assembly • Evaluation	**Electronics – simple circuits and switches** •How does electricity work? Inputs/outputs •How does a circuit work? •Components •Making •Making •Testing and Evaluation
Year 5	**Structures – Bridge Building project** •Forces – compression, tension, torsion, shear •How to reinforce structures – triangulation and types of bridges. •Initial ideas of bridges •Make bridges in team •Testing!	**Food - seasonality** • What is seasonality? • Food and origins • Farming and processing • Where does our food come from . Making Activity	**Mechanisms – Mechanical Toy design** • Gears – types of gears and simple gear trains • Design brief and product analysis • Skills – modelling use of cams and gears • Design ideas • Making • Making

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Year 6	**Make Combining / joining – F1 car** •Aerodynamics and forces •Initial ideas •Modelling •Learning how to used 2D CAD •Modelling in CAD •Making •Race Day!	**Food - celebrating culture** Intro Food from around the world Designing dishes that celebrate global food	**Electronics – programmable components** • Flowcharts – symbols and how to draw a flowchart • Planning programs using flow charts • Programming buggies or microbit?