

KEY STAGE	YEAR	TOPIC NAME	ENQUIRY QUESTION	MAIN CURRICULUM FOCUS	BIG FINISH
KEY STAGE 1	YEAR 1	Moving Pictures	What mechanisms are used to design a moving picture?	Children will have used tools safely to make a moving picture that incorporates a simple lever or slider; have used given techniques to practice their making skills and as a starting point for developing their own ideas; have been able to talk about how simple moving products work.	Design and make and make a moving picture for the teacher to use when telling a story
		Playgrounds	How would you design a stable piece of playground equipment?	Children will have investigated a range of actual items of playground equipment; have joined construction kit components together and combined them with other materials e.g. card, reclaimed materials, doweling and string; have successfully constructed a realistic model of an item of playground equipment; have assembled their model with accuracy and be able to talk about how it is appropriate for the intended user.	Design and make models of equipment for a playground
		Eat more fruit and veg	How could you encourage people to eat more healthily?	Children will have gained an understanding of the properties, including taste, texture and appearance, of a range of fruit and vegetables and then prepared and combined ingredients into a specific product; have used basic tools safely; have recognized that it is important to eat more fruit and vegetables.	Design and make a product for a particular group to encourage them to eat more fruit and vegetables.
	YEAR 2	Vehicles	How would you make a wheeled vehicle?	Children will have gained an understanding of how simple mechanisms related to moving vehicles work, after clarifying their ideas through discussion; have made a wheeled vehicle which moves and which generally matches their design intention.	Design and make a wheeled vehicle for a purpose.
		Puppets	How would you design and create a puppet?	Children will have discussed their ideas as they developed and be able to say what their design has to do; have created a puppet that works (ie is the right size and reflects the character) using a given technique; have stitched two pieces of fabric together and added features using appropriate materials and techniques.	Design and make a puppet for a purpose.
		Winding up	How does a winding mechanism work?	Children will have gained an understanding of simple winding mechanisms and made realistic suggestions as to how their ideas can be achieved; have constructed mechanisms using construction kits and reclaimed materials; have made the parts eg spider, rain and sun to represent the story in a moving toy; have been able to say what works well in their model.	Design and make a winding up toy based on a chosen rhyme. E.g. Incy Wincy Spider

LOWER KEY STAGE 2	YEAR 3	Sandwich Snacks	How would you design a healthy sandwich?	Children will have used information from an evaluation activity to select and prepare a range of sandwich ingredients for a purpose, combining the ingredients to create an appealing sandwich; have considered how well their sandwich meets the original purpose; have an understanding of the 'balanced plate' model for healthy eating and will have applied this to ideas about how the sandwich contributes to a healthy diet.	Design and make a sandwich for a particular purpose.
		Packaging	How would you make a 3D package for your sandwich?	Children will have investigated a range of commercially made packaging and recognized that many examples are constructed from nets; have made paper models (mock-ups) of their ideas before measuring, marking out, cutting and assembling with accuracy; have evaluated their packaging against their original design criteria; have produced packaging that is visually lively, accurately made and appropriate for its purpose.	Design and make packaging for a specific purpose.
		Moving Monsters	How do assemble a pneumatic system?	Children will have developed an understanding of simple pneumatic systems; have worked as part of a team to design and make a model monster with at least one moving part controlled by a pneumatic system.	Design and make a monster with moving parts controlled by pneumatic systems.
	YEAR 4	Money Containers	How do you make a money container?	Children will have sufficient understanding and skills in working with textiles to design and make a money container that meets their design criteria; have evaluated existing products, testing fabrics to choose an appropriate one; have applied decorative techniques appropriately.	Design and make a money container for themselves or someone else.
		Story Books	How do you make a pop-up book?	Children will be able to use ideas gained from investigating a variety of products and will have increased their repertoire of skills and techniques; have used tools safely to design and make pages, incorporating levers and linkages, for a book finished to a high standard; have developed skills in making a range of simple mechanisms; have been able to work as part of a group; have been able to evaluate, in use, both their own and others' products.	Design and make a storybook that has moving parts for a particular purpose.
		Lighting up (torches)	How do you design and make a new type of battery-powered light?	Children will have reinforced their understanding of how a simple battery-operated circuit works and how this can be controlled by employing different kinds of switch; have made a torch, identifying the specific needs of a chosen user and evaluating it against design criteria.	Design and make a new type of battery powered light which satisfies certain needs of the person who will use it.
	YEAR 5	Musical Instruments	How would you design & make a musical instrument to accompany a performance?	Children will have recognized that sounds can be created in many different ways; have gathered and used information to generate a number of ideas and selected one design for their musical instrument; have modelled parts of their design as appropriate and/or produced annotated diagrams; have made suggestions about how they plan to make their instrument; have measured, marked out, cut and assembled their instrument with accuracy; have continually evaluated their work, including a final	Produce a quality musical instrument that will produce a series of controllable sounds when played.

				evaluation against the original criteria; have used ICT for researching and designing; have an understanding of how to strengthen materials.	
		Bread	How can you make a cultural treat using a simple bread recipe?	Children will have used their experiences of food ingredients and cooking methods to help generate ideas: have explained why they have chosen certain foods and processes; have produced an order of work and chosen equipment appropriately; have made and evaluated their bread product against objective design criteria; have a clear understanding of issues related to food safety and hygiene.	Design and make a new product for a specific occasion or person.
		Moving toys	How do you design and make a toy with a moving part, using a cam for a particular purpose?	Children will have used their knowledge of the movement made by the cam in the design of their toy; have produced sketches and step-by-step plans and identified tools and materials; have measured, marked out and cut accurately, evaluating their work as it develops and at the end.	Design and make a toy with a moving part using a cam for a particular purpose.
	YEAR 6	Shelters	How would you design and make a model shelter for a specific purpose?	Children will have investigated several shelters; have made, used and recognised the use of tubes as a material from which to make a framework; have reinforced and strengthened frameworks using triangulation and carried out a fair test; have included in their designs drawings showing several alternative shelter ideas; have chosen to make an appropriate scale or full-size shelter for a specific purpose; have incorporated a framework and a textiles cover.	Design and make a model shelter for a specific purpose
		Slippers	How would you design and make a slipper for a given purpose?	Children have used information from investigating slippers to inform their own designing and making; have developed their skills in working with textiles and will have designed and made a slipper using appropriate materials and techniques; have been able to evaluate critically both the appearance and function of the slipper against the original Specifications.	Design and make slippers for a specific purpose
		Celebration time!	What dish is befitting celebrating the end of Year 6?	Children will have used their experiences of food ingredients and cooking techniques to help generate ideas: have explained why they have chosen certain foods and processes; have produced an order of work and chosen equipment appropriately; have made and evaluated their savory dishes against objective design criteria; have a clear understanding of issues related to food safety and hygiene.	Design, prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques..