

Design & Technology Curriculum



Cycle B	Opal Reception	Me and my community To use construction kits to create vehicles with axles and wheels.	Once upon a time To create structures using various materials, including construction kits and upcycled materials.	Starry night To be able to create cuddly pets using textiles.	Dangerous Dinosaurs To create dinosaurs using various resources and construction kits.	Sunshine and sunflowers To be able to explore existing products to inspire their designs for sun hats and crop protectors.	Big wide world To create vehicles using a range of resources and construction kits.
	Opal Y1	Shade and Shelter This project teaches children about the purpose of shelters and their materials. They name and describe shelters and design and make shelter prototypes. Children then design and build a play den as a group and evaluate their completed product.		Taxi This project teaches children about wheels, axles and chassis and how they work together to make a vehicle move.		Chop, Slice, Mash This project teaches children about sources of food and the preparatory skills of peeling, tearing, slicing, chopping, mashing and grating. They use this knowledge and techniques to design and make a supermarket sandwich according to specific design criteria.	
	Emerald	Remarkable Recipes This project teaches children about sources of food and tools used for food preparation. They also discover why some foods are cooked and learn to read a simple recipe. The children choose and make a new school meal that fulfils specific design criteria.		Beach Hut This project teaches children about making and strengthening structures, including different ways of joining materials.		Cook well, Eat well This project teaches children about food groups and the Eatwell guide. They learn about methods of cooking and explore these by cooking potatoes and ratatouille. The children choose and make a taco filling according to specific design criteria.	
	Sapphire	Fresh Food, Good Food This project teaches children about food decay and preservation. They discover key inventions in food preservation and packaging, then make examples. The children prepare, package and evaluate a healthy snack.		Functional and Fancy Fabrics This project teaches children about home furnishings and the significant designer William Morris. They learn techniques for decorating fabric, including block printing, hemming and embroidery and use them to design and make a fabric sample.		Tomb Builders This project teaches children about simple machines, including wheels, axles, inclined planes, pulleys and levers, exploring how they helped ancient builders to lift and move heavy loads.	
	Ruby	Make do and Mend This project teaches children a range of simple sewing stitches, including ways of recycling and repurposing old clothes and materials.		Engineer This project teaches children about remarkable engineers and significant bridges, learning to identify features, such as beams, arches and trusses. They complete a bridge-building engineering challenge to create a bridge prototype.		Eat the Seasons This project teaches children about the meaning and benefits of seasonal eating, including food preparation and cooking techniques.	
Cycle A	Opal Reception	Me and my community To use construction kits to create vehicles with axles and wheels.	Once upon a time To create structures using various materials, including construction kits and upcycled materials.	Starry night To be able to create cuddly pets using textiles.	Dangerous Dinosaurs To create dinosaurs using various resources and construction kits.	Sunshine and sunflowers To be able to explore existing products to inspire their designs for sun hats and crop protectors.	Big wide world To create vehicles using a range of resources and construction kits.

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Emerald	Push and Pull This project teaches children about three types of mechanism: sliders, levers and linkages. They make models of each mechanism before designing and making a greetings card with a moving part.	Cut, Stitch and Join This project teaches children about fabric home products and the significant British brand Cath Kidston. They learn about sewing patterns and using a running stitch and embellishments before making a sewn bag tag.	Making it move This project teaches children about cam mechanisms. They experiment with different shaped cams before designing, making and evaluating a child's automaton toy.	Greenhouse This project teaches children about the purpose, structure and design features of greenhouses, and compares the work of two significant greenhouse designers. They learn techniques to strengthen structures and use tools safely. They use their learning to design and construct a mini greenhouse.
Sapphire	Moving Mechanisms This project teaches children about pneumatic systems. They experiment with pneumatics before designing, making and evaluating a pneumatic machine that performs a useful function.		Eat the Seasons This project teaches children about the meaning and benefits of seasonal eating, including food preparation and cooking techniques.	Architecture This project teaches children about how architectural style and technology has developed over time and then use this knowledge to design a building with specific features.
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