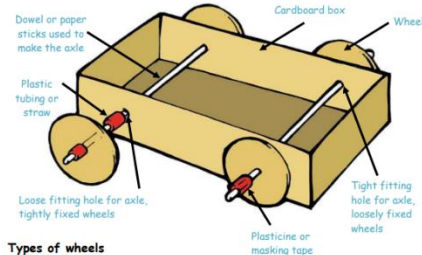
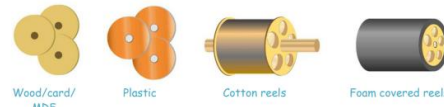


Year 3 Autumn: Design and Technology Knowledge Mat

Vehicles

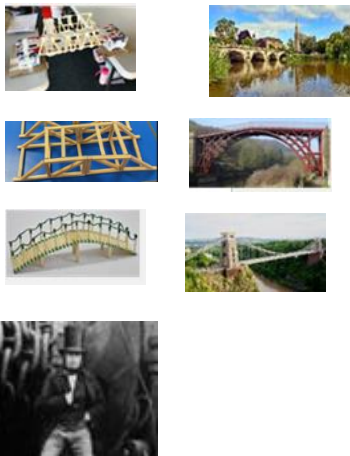
Key Vocabulary		Technique	Core Knowledge	
purpose	You need to think about who your product is for – what is its job and who is going to use it?	Example of two different ways to fix wheels  Types of wheels	➤ I know how to develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at individuals or groups. ➤ I know how to generate my ideas with growing confidence for an item considering its purpose and users. ➤ I know how to label drawings when designing and planning, showing materials and components. ➤ I know how to select from range of tools and equipment to perform practical tasks. ➤ I know how to select from and use a broader range of materials and components, including construction materials, textiles, and ingredients, according to their functional properties and aesthetic qualities. ➤ I know how to investigate and analyse a range of existing products. ➤ I know how to evaluate my ideas and products against my own design criteria and consider the views of others to improve their work. ➤ I know how key events and individuals in design and technology have helped shape the world. ➤ I know how to and can use mechanical systems in my products (for example, gears, pulleys, cams, levers and linkages).	
design	To plan a project to make a new structure or product.			
vehicle	A moving object used to carry and move people or things. It is controlled by mechanisms that allow it to move.			
chassis	The chassis is the frame or base on which the vehicle is built. A chassis should be strong and rigid enough to hold the vehicle.	Products		
strengthen	Add support so it is not likely to fall or give way	 		
axel	A rod or spindle passing through the centre of a wheel			
evaluate	Express an opinion of the merits and faults of a final product.			

Year 3 Spring: Design and Technology Knowledge Mat

Key Vocabulary		Technique	Core Knowledge
sandwiches	Slices of bread with other food between them such as meat or cheese.	 	• I know the key ingredients of a sandwich/wrap. • I know that to stay healthy it is important to eat a balanced diet of foods from each of the five food groups. • I know how to select and use a range of different appropriate tools to make a wrap or sandwich • I know how to design a sandwich based upon a design criteria. • I know how to use a wide range of cookery techniques to prepare food safely i.e. cutting, slicing, grating • I know how to evaluate designs and sandwiches created.
ingredients	The food items combined to make something specific such as a sandwich		
food groups	Any group of foods organised by nutritional properties such as dairy or protein.		
healthy	Good for your health.	Products	
balanced diet	A diet consisting of a variety of different types of food and providing adequate amounts of the nutrients necessary for good health.	 	
taste	The sensation of flavour in the mouth.		
packaging	Materials used to wrap or protect goods.		

Year 3 Summer: Design and Technology Knowledge Mat

Bridges and Structures

Key Vocabulary		Technique	Core Knowledge
bridge	A structure that allows people and vehicles to cross over an open space such as a road or river.	Measure, Cut, Join 	• I know the key ingredients of a sandwich/wrap. • I know that to stay healthy it is important to eat a balanced diet of foods from each of the five food groups. • I know how to select and use a range of different appropriate tools to make a wrap or sandwich • I know how to design a sandwich based upon a design criteria. • I know how to use a wide range of cookery techniques to prepare food safely i.e. cutting, slicing, grating • I know how to evaluate designs and sandwiches created.
arch bridge	Arch bridges have a curved underside which strengthen the bridge.		
cable tied/cantilever bridges	A cantilever bridge has two sections that are attached to one side and joined at the centre (like the human arm)		
suspension bridge	A suspension bridge has cables running from one tower to another, with vertical hangers that hold the road in place.	Products 	
beam bridge	A beam bridge is the most simple bridge consisting of a beam across a gap.		
trestle bridge	Trestle bridges are made of tripod platforms that support the bridge.		
reinforce	To strengthen by additional assistance, material or support.		
Isambard Kingdom-Brunel	A Victorian engineer who was one of the main architects of Britain's industrial revolution. He was famous for some of Britain's railways and ships. He designed bridges, tunnels, viaducts and passenger ships.		
join	The connecting of two parts.		