

## DT: Practical Knowledge

<u>ear Six</u>	K:	Autumn	Spring	Sumr
know ho				
Design	Design a product featuring a variety of different structures, giving careful consideration how the structures will be used			
	Experiment with a range of cams, creating a design for a product to create a required movement			
	Understand how linkages change the direction of a force			
	Make things move at the same time			
	Understand and draw cross-sectional diagrams to show the inner-working of a design			
	Identify and name components in a design			
	Draw a design from three different perspectives and annotate sketches			
	Model ideas through prototypes			
	Write a recipe, explaining the key steps, method and ingredients			
	Include facts and drawings from research undertaken			
	Write a design brief from information submitted by a client and develop design criteria to fulfil the client's request			
	Use CAD (place and manoeuvring 3D objects/ changing properties/ combining)			
Make	Build a range of structures, drawing upon new and prior knowledge of structures			
	Measure, mark and check accuracy, using a ruler			
	Measure, mark and cut components accurately using a ruler and scissors			
	Assemble components accurately to make a stable frame, securing joints at right angles			
	Select appropriate materials based on the materials being joined and consider sustainability — explaining choices and why they were			
	chosen  Construct a stable base for a product			
	Accurately cut, fold and assemble a net			
	Decorate a product to a high-quality finish			
	Incorporate a circuit into a product			
	Follow a recipe, including the correct quantities of each ingredient, safely and hygienically			
	Adapt a recipe/ design based on research			
	Work to a given timescale			
	Improve a design plan based on peer-evaluation			
Evaluate	Test and adapt a design to improve it as it is developed			
	Identify what makes a successful product and score final products			
	Evaluate the work of others and receive feedback in own work			
	Apply points of improvement to their designs			
	Describe changes they would make/ do if they were to do the project again			
	Explain how the final product fits the design criteria			
	Describe how the product concept fits the client's request and how it will benefit the customers			
Technical Knowledge	Know that structures can be strengthened by manipulating materials and shapes			
	Understand that the mechanism in an automata uses a system of cams, axles and followers			
	Understand that different shaped cams produce different outputs			
	Know that batteries contain acid, which can be dangerous if they leak			
	Know that accelerometers can detect movement			
	Know that 'flavour' is how a food or drink tastes			
Cooking and Nutrition	Know that many countries have 'national dishes' which a recipes associated with that country			1
	Know that 'processed food' means food that has been put through multiple changes in a factory			
	Understand it is important to wash fruit and vegetables before eating to remove any dirt and insecticides			
	Understand what happens to a certain food before it appears on the supermarket shelf			1

