DT Progression of Knowledge by Class

Year B

	Kirkstead/Richmond	Tintern
	To Infinity and Beyond Children know what a typical space rocket looks like. Children know how to cut paper and card to a given shape. Children know how to attach different materials together, Children know how to decorate their rocket **Under the Sea-Moving Books** Children know what pop up books are, children can explain what happens in a pop-up book, children know what a habitat is, children can create a habitat picture for a given animal, children can incorporate a pop up in their habitat picture	**To Infinity and Beyond** Children know about the development of space rockets Children know the different parts of a space rocket. Children can name the different structures on a space rocket. Children know why a nose cone is pointed. Children know that air can be used to propel an object. Children know that if air passes through a narrow point it moves faster. Children know how to draw an diagram, Children know how to compile a list of components, Children know how to select tools to use Children can add features to follow a design. Children can use joining techniques to join different materials together. Children can use different materials to represent different components. **Under the Sea-Moving Books** Children know that some books and products have moving parts Children know what sliders are and how they make a moving element Children know how to draw a design for their product Children know how to adapt their design Children know how to strengthen a material Children know how to join materials together.
	Crowland/Regent	**Westminster/St James**
	To Infinity and Beyond-Space Rockets Yr 1 Children know about the development of space rockets Children know the different parts of a space rocket. Children can name the different structures on a space rocket. Children know why a nose cone is pointed. Children know that air can be used to propel an object. Children know that if air passes through a narrow point it moves faster. Children know how to draw an diagram, Children know how to compile a list of components, Children know how to select tools to use Children can add features to follow a design. Children can use joining techniques to join different materials together. Children can use different materials to represent different components. Yr 2 Children know about the development of space rockets Children know the different parts of a space rocket. Children can name the different structures on a space rocket, Children can explain how a space rocket uses propulsion to move. Children know the reason for fins to stabilise rockets. Children know why a nose cone is pointed. Children know that air can be used to propel an object. Children know that if air passes through a narrow point it moves faster. Children know how to draw an annotated diagram, Children know how to compile a list of components, Children know how to select tools to use Children can add features to a plastic bottle to follow a design. Children can use joining techniques to join different materials together. Children can use different materials to represent different components. Children know that air can be pumped into a bottle through a needle Children know that air pressure will build up. Children know that a rocket will be	**To Infinity and Beyond-Space rockets and Pneumatics** Yr 2/3 Children know about the development of space rockets Children know the different parts of a space rocket. Children can name the different structures on a space rocket, Children can explain how a space rocket uses propulsion to move. Children know the reason for fins to stabilise rockets. Children know why a nose cone is pointed. Children know that air can be used to propel an object. Children know that if air passes through a narrow point it moves faster. Children know how to draw an annotated diagram, Children know how to compile a list of components, Children know how to select tools to use Children can add features to a plastic bottle to follow a design. Children can use joining techniques to join different materials together. Children can use different materials to represent different components. Children know that air can be pumped into a bottle through a needle Children know that air pressure will build up. Children know that a rocket will be propelled upwards. Children know how to measure distance moved. Children know how to evaluate their design and assess its performance Children know how to suggest improvements **Sun, Sea and Sand- Moving Books** Yr 2/3 Children know that some books and products have moving parts Children know what sliders are and how they make a moving element Children know what levers are . Children know how to include them in a design Children know what a wheel mechanism is and how it can move round a pivot Children can design a habitat including at least 2 moving elements Children know how to draw a design for their

	propelled upwards. Children know how to measure distance moved. Children know how to evaluate their design and assess its performance Children know how to suggest improvements Sun Sea and Sand- Moving Books Yr 1 Children know that some books and products have moving parts Children know what sliders are and how they make a moving element Children know what levers are . Children know how to include them in a design Children know what a wheel mechanism is and how it can move round a pivot Children can design a habitat including at least 2 moving elements Children know how to draw a design for their product Children know how to adapt their design Children know how to strengthen a material Children know how to join materials together. Yr 2 Children know that some books and products have moving parts Children know what sliders are and how they make a moving element Children know what levers are . Children know how to include them in a design Children know what a wheel mechanism is and how it can move round a pivot Children can design a habitat including at least 2 moving elements Children know how to draw a design for their product Children know how to adapt their design Children know how to strengthen a material Children know how to join materials together.	product Children know how to adapt their design Children know how to strengthen a material Children know how to join materials together.

	Fountains/Central	Lindisfarne/Sempringham/Phoenix	Kelso/Ramsey/Hyde
	Swineshead V London-Electrical components Children know everyday objects that use electrical motors to cause rotation Children identify how rotation is used in the London Eye Children know how electrical circuits and motors are used to make objects rotate. Children can describe how an electrical circuit with a motor can be used to create rotating parts. • Children know how pulley and belt systems can be used to transfer movement Children can explore and investigate creating a framework for the London Eye. Children know ways of strengthening and reinforcing structures. Children know how to use a variety of materials and components accurately . Children can design an appropriate electrical circuit for their design. Children follow a design to create a version of the London Eye Children know how to work accurately and safely with a variety of tools, materials and electrical components. Children can demonstrate their finished model then evaluate both their process and their finished product, Transport through the Ages-Wheels and axles Children can identify a variety of different types of vehicles, Children can identify the main features of a variety of vehicles Children can identify the uses for a variety of vehicles, Children know what wheels, axles and chassis are• Children know that there are two different ways of attaching wheels to axles • Children can experiment with a range of materials and techniques to combine wheels, axles and chassis Children can choose materials to use as the body of a vehicle • Children can identify different ways of combining materials to create the body of a vehicle • Children can identify different ways of decorating the body of a vehicle including ICT Children can design a vehicle to include wheels, axles, chassis and bodies • Children can describe which materials and tools they will need to make their vehicles Children can discuss their designs and say what they think and feel about them. Children can follow a design to create a vehicle •	Vikings and Saxons-Viking Longships Children know that the front of the longship is the prow and the rear the stern. Children know what clinker built means. Children know the use of the keel. Children can design a longboat; children know they need to consider the purpose of their design. Cg=children can select appropriate materials for construction. Children know how to follow their design. Children can mark and cut materials accurately. Children know how to create a waterproof hull. Children know the need for a keel. Children can securely attach a mast. Children know the correct shape for a sail. Children know how to securely attach the sail. Children can test the design of their longboat. World's Kitchen- Healthy Snacks Children know where in the world ingredients come from. •. Children know that diets around the world are based on similar food groups. Children know why rice is a good staple food. Children can demonstrate a range of food skills and techniques. Children know how to prepare a range of savoury foods from a variety of countries (China, Mexico, Germany etc)Children know how to follow a recipe demonstrating a range of cooking techniques. Children can name some varied ingredients and say which part of the world they come from. Children can explain the different food groups on the Eatwell plate Children know how to use some basic food skills, such as grating and chopping, Children know where and how a variety of ingredients are grown in the context of looking at where a variety of ingredients come from	Parliament and Power-Electrical components Children can identify the features of commercially available lights which make them suitable for a specific purpose. Children can describe how a light and switches work Children know how to work safely with electricity. Children know what components are required when making a circuit that illuminates a bulb. Children can make a bulb light up in a simple circuit > Children can identify metal components that conduct electricity . Children know about a variety of switches, Children know that a contact has to be made to create a circuit. Children can create their own switches and know how to place them in a circuit to control a bulb. Children know how they will use their ideas in their own light designs. Children can draw and annotate a design for a light, considering its purpose, what switch to use, and how to conceal its circuitry Children can describe how they will make their product Children know how to follow a design Children can test, demonstrate and evaluate their finished light designs. Children know how to evaluate a finished product against design criteria

	Children can use a variety of materials and tools safely and effectively to create a vehicle • Children can identify ways in which they could improve their products and amend accordingly Children can evaluate a finished product by identifying what they did well • Children can evaluate a finished product by identifying what could be improved • Children can identify ways in which they could improve their work with DT in the future		