





DT -Milestone 1-3

	Milestone 1			Milestone 2			Milestone 3		
Subject	Autumn	Spring	Summer	Autumn	Spring	Summer	Autumn	Spring	Summer
Year A Topics	Aut 1: The Gruffalo	Sp 1: Where in the world are we?	Su 1: Up, Up and Away	Aut 1: Bear Grylls	Sp 1: Tudors	Su 1: Around the World	Aut 1: Island Survival	Sp 1: Greeks	Su 1: Location, Location
	Aut 2: Light and Dark	Sp 2: Toys	Su 2: Chocs Away	Aut 2: Tudors	Sp 2: Around the World	Su 2: Egyptians	Aut 2: Anglo Saxons	Sp 2: Spy School	Su 2: Aztecs
Year B Topics	Aut 1: At the Circus	Sp 1: Dinosaurs	Su:1 At the Seaside	Aut 1: Night at Museum	Sp 1: Extreme World	Su:1 Romans	Aut 1: Vikings	Sp 1: Titanic	Su:1 WW2
	Aut 2: Polar Adventures	Sp 2: Fun Food Factory	Su:2 Great Fire of London	Aut 2: Extreme World	Sp 2: Romans	Su:2 Chellaston and Me	Aut 2: Peak Adventures	Sp 2: Titanic	Su:2 Rivers
DT	Threshold Concept (SKILL) To design, make, evaluate and improve -This concept involves developing the process of design thinking and seeing design as a process								
	Design products that have a clear purpose and an intended user. Make products, refining the design as work progresses. Use software to design.			Design with purpose by identifying opportunities to design. Make products by working efficiently (such as by carefully selecting materials). Refine work and techniques as work progresses, continually evaluating the product design. Use software to design and represent product designs.			Design with the user is mind, motivated by the service a product would offer. Make products through stages of prototypes, making continual refinements. Ensure products are of a highquality finish, using art skills where appropriate. Use prototypes, cross sectional diagrams and computer aided designs to represent designs.		
	Threshold Concept (SKILL) To master practical skills- This concept involves developing the skills needed to make high quality products								
	Materials: This skill will be revisited regularly over in all the DT topics <i>Cut materials safely using tools provided.</i> <i>Measure and mark out to the nearest centimetre.</i> <i>Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling).</i> <i>Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen).</i>			Materials: This skill will be revisited regularly over in all the DT topics <i>Cut materials accurately and safely by selecting appropriate tools.</i> <i>Measure and mark out to the nearest millimetre.</i> <i>Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs).</i> <i>Select appropriate joining techniques.</i>			Materials: This skill will be revisited regularly over in all the DT topics <i>Cut materials with precision and refine the finish with appropriate tools-eg scissors after a rough cut or sanding wood</i> <i>Show an understanding od the qualities of materials to choose appropriate tools to cut and shape eg sharper scissors for cutting fabric.</i>		
	Year A Electricals and Electronics Diagnose faults in battery operated devices (such as low battery)	Year A Toys- Textiles Shape textiles using templates. Join textiles using running stitch. Colour and decorate textiles using a number of techniques (such as dyeing, adding sequins or printing).	Year A Mechanics Create products using levers, wheels and winding mechanisms.	Year A Bear Grylls Construction To design and build a shelter using knot bashing. Survival- shelters 	Year A Tudors Textiles Understand the need for a seam allowance. Join textiles with appropriate stitching. Select the most appropriate techniques to decorate textile 	Year A Around the World- Food Prepare ingredients hygienically using appropriate utensils. Measure ingredients to the nearest gram accurately. Follow a recipe. Assemble or cook ingredients (controlling the temperature of the oven or hob, if cooking).	Year A – Electricals and Electronics - Construct a Mars Rover using an electrical circuit; build a frame using sawing and attaching techniques	Year A – Material Spy Gadgets – use a range of materials to build a gadget that meets the needs of a spy – involving the science of light and sound.	Year A – Construction Construct a flood house – explore a range of construction techniques to build a house that can withstand heavy rain.
	Knowledge Development Can children investigate a range of torches, which has lowest to best battery- maybe a continuous provision “test your torch shop?” To know when a battery is faulty	Knowledge Development To know how to design and make individual teddy bears. Select material, use a template, use running stitch and add detail- such as eyes/features	Knowledge Development To know how to use levels, wheels to create an aeroplane. To know how to arrange materials to create a winding mechanism to depict the first black woman’s flight – Amelia Earhart 	Knowledge Development To know how to make small- and large-scale shelters using appropriate materials and select equipment. To know which joining techniques to use to build a successful shelter such as knot tying	Knowledge Development Create 9 man’s Norris- (tic tac toe- noughts and crosses) To know how to sew 2 pieces of fabric. Join with a running stitch.	Knowledge Development To know how to follow a recipe to help assemble or cook a recipe linked to a country of focus.	Knowledge Development To know how to construct a Mars Rover using an electrical circuit; build a frame using sawing and attaching techniques	Knowledge Development To know how to use a range of materials to build a gadget that meets the needs of a spy – involving the science of light and sound.	Knowledge Development To know how to construct a flood house – explore a range of construction techniques to build a house that can withstand heavy rain.
	Year B Materials Cut materials safely using tools provided. Measure and mark out to the nearest centimetre. Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling). Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to	Year B Food *Cut, peel or grate ingredients safely and hygienically. *Measure or weigh using measuring cups or electronic scales. *Assemble or cook ingredients.	Year B Construction Use materials to practise drilling, screwing, gluing and nailing materials to make and strengthen products. <i>Measure and mark out to the nearest centimetre.</i> <i>Cut materials safely using tools provided.</i>	Year B Night at the Museum Electricals and Electronics- Create series and parallel circuits	Year B Construction Choose suitable techniques to construct products or repair items. Strengthen materials using suitable techniques.	Year B Romans Mechanics Use scientific knowledge of transference of forces to choose appropriate mechanisms for a product such as levers winding mechanisms, pulleys and gears	Year B – Mechanics – Build a clock based on research into a target market; build using cutting, attaching and finishing techniques; evaluate finished product.	Year B – Food Research, design, bake and evaluate a bread product that meets the needs of an identified target audience.	Year B – Textiles – sewing techniques to create a ‘make do and mend’ product.
Knowledge Development To know how to measure and mark out materials to create a frame. To know how to tear, cut, fold and curl materials to create the decoration on the edge of the frame. To know how to use a flap to create a hinge for the photo frame. Photo frames of family members.	Knowledge Development Design and create their own pizza’s Assemble the ingredients onto a pizza following their own design <i>Materials- folding pizza boxes</i>	Knowledge Development To know how to safely measure, mark out and cut using a hack saw. To know how to arrange materials to build a Tudor house. To know how to make the house stronger using card and glue.	Knowledge Development To know how to create a series and parallel circuit to make an interactive museum exhibit/display	Knowledge Development To know how to construct a building to survive a potential extreme disaster.	Knowledge Development To know how to use the above skills to make Roman catapults. To know about the Scorpion, the Ballista and the Onager and discuss how they were the same and different.	Knowledge Development To know how to build a clock based on research into a target market; build using cutting, attaching and finishing techniques; evaluate finished product.	Knowledge Development To know how to research, design, bake and evaluate a bread product that meets the needs of an identified target audience.	Knowledge Development To know how to use sewing techniques to create a ‘make do and mend’ product.	

Threshold Concept (SKILL) To take inspiration from design throughout history -This concepts involves appreciating the design process that has influenced the products we use in every day life.									
	Year A Look at torches through the years. Year B - Photo frames	Year A - From Theodore Roosevelt to Build a bear!	Year A - Aeroplanes over time – Link to Rolls Royce. Year B – Tudor Homes		Year A - Can children create 9 mans morris using natural resources?	Year B - The Scorpion, Ballista and Onager	Year A - Apollo Moon landings Year B – Clocks through history	Year A - Spies in literature Year B – Bread through the ages	Year A - Climate change and flooding around the world Year B – Make Do and Mend aspect of WWII
Enrichment		STEM WEEK Ready Steady Cook Assembly		Hicks Lodge trip (den building) (Year B) 	STEM WEEK			STEM WEEK	
POP Task	Year A – Create a circuit to test batteries. Year B – Design an igloo.	Year A – Design a book mark Year B - Fun Food	Year A – Make a car Year B – Building a home in present day.	Year A – Evaluate the effectiveness of shelters. Year B – Evaluate Museum Display	Year A – Evaluate their textiles product discussing what they’ve learnt and what they would change next time. Year B – Evaluate Buildings -Did it work? What have we learnt?	Year A – Evaluate the food product – discussing process Year B – Evaluate Catapult -	Year A – Mars rover evaluation Year B – Clock evaluation	Year A – Spy Gadget Year B – Bread evaluation	Year A – flood house and evaluation Year B – sewing task (photo)