DT Curriculum 2025/26 – Years 5 & 6

	Autumn 1	Autumn 2
Topic	**No Focus**	**Electrical Systems – Alarming Vehicles- DT Association Projects on a Page** Children will design and make an electrical alarm system for a car or lorry
Knowledge		• Know about examples of alarm systems and where and why they are used – eg to provide information, to warn of danger or disturbance, to prevent damage, to keep things safe (use Youtube to look at how alarm systems work) • Know about car alarms and the type of alarm that could be used, reflecting the purpose of the vehicle and needs of the driver. (For example -they could consider door/boot alarms to ensure these are closed; alarms to warn the driver that passengers have not attached their seat belts; warnings that a vehicle is overloaded or is tipping over) • Know about different sorts of input switches and how an alarm may be triggered and the output e.g a siren or a flashing light • Know how to create an alarm system to set off a buzzer or light using an electrical circuit and switch • Know about different types of switches and that switches may work in different ways e.g slide, tilt, push • Know how to produce a labelled drawing or exploded diagram to show close ups of their circuit and vehicle (IKEA or Lego ones as examples) • Know how to produce a vehicle net and cut and shape materials with precision to assemble their frame or chassis and large enough to incorporate their electrical alarm system (can be done in groups) • Know how to compare their final product to their original design specification • Know how to critically evaluate their end product for quality of design, manufacture, functionality and fitness for purpose Digital Aspect: Research how different alarm systems work using Youtube)
Vocab		Design brief, design criteria, end user, alarm, alarm system, electrical circuit, input, output, battery switch, light, buzzer, pressure sensor, motion sensor, switch, vehicle net, vehicle chassis, concealed circuit, labelled diagram, exploded diagram

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	Spring 1	Spring 2
Topic	**No Focus**	**Structures – Fairground Rides** Children will extend their knowledge of structures through the design and making of a small scale/prototype fairground ride in small groups. They will consider how an electrical system can make this structure move.
Knowledge		• Know how different fairground rides can move • Know that a ride needs a mechanism to move or turn the ride • Know that an electrical motor can make parts turn or rotate • Know how a pulley and belt system can transfer movement • Know how to create an electrical circuit with a motor • Know how to use a motor, pulley and belts to make a mechanism move or rotate • Know how to produce a labelled diagram of an object which uses an electrical motor e.g fan, toy vehicle • Know how to produce a design for a fairground ride with a rotating part using a range of methods such as exploded/ labelled diagrams/ 3D pictures • Know how to generate a mock-up/prototype model of a fairground ride • Know about techniques for strengthening, stabilising and reinforcing structures when building their fairground ride • Know about different techniques for joining different materials together • Know how to use wood working tools, dowel, square section wood, art straws or cardboard to construct their product. • Know the names and functions of the DT equipment used, and do so appropriately and safely • Know how to select resources considering their aesthetic properties, durability and functionality • Know how to evaluate a finished product against design criteria Digital aspect – Use word processing software to create a recount of the design and making process or for evaluation; digital photographs of making process or finished product taken by pupils
Vocab		Motor, wires, switches, electrical circuit, mechanism, components, pulley and belt system, card, wood, dowelling, framework, prototype, design criteria, strengthen, reinforce, stable structure, joint, labelled diagram, exploded diagram, sketch, aesthetic, functionality, evaluate, outcome, coding

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	Summer 1	Summer 2
Topic	**No Focus**	**Food Technology – Energy Bars/Flapjacks** Children will research ingredients and recipes for flapjacks/energy bars and will make an energy bar or flapjack which would be ideal for the residential trip.
Knowledge		• Know how to read recipes and identify key ingredients in flapjacks or energy bars and why these are used • Know how to evaluate packaging of energy bars, considering the nutritional values of ingredients • Know how to develop their own recipe, working in groups to create their product • Know how to use appropriate cooking techniques to make their flapjack/energy bar • Know how to evaluate the taste and aesthetic appeal of the finished product • Know about cost effectiveness of food products and how this impacts the ingredients used and price • Know how to design appealing packaging including appropriate nutritional information – digital aspect Digital Aspect: Design packaging for their own energy bars on word or powerpoint – use a 2D template or net and add on their design.
Vocab		**Flapjack, energy bar, flavour, aesthetic appeal, packaging, recipe, ingredients, nutritional value, method, mix, combine, fold, bake, centigrade, Fahrenheit, utensils, cost effective,**

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	Autumn 1	Autumn 2
Topic	**Textiles - Make Do and Mend** – Children will create a small cushion cover/cushion made from recycled material—to link in with the WW2 'Make Do and Mend' theme	**No Focus**
Knowledge	• Know how to create a design/mood board for their cushion – gathering ideas about fabrics/embellishments/colours/patterns • Know how to thread a needle and sew using stitches— running stitch, cross stitch, back stitch • Know how to join fabric by sewing seams on the reverse side • Know when best to add decoration or embellishments in the design process • Know what pattern pieces are; • Know about different fabrics and which would be most appropriate to their task eg cotton, linen, felt, denim • Know about different ways to fasten fabrics—do we need an opening side (e.g buttons, Velcro, zip) or will we secure with stitching? • Know about famous fashion designers who were innovators and how they adapted design to user -e.g Utility fashion in WW2. • Know about the environmental impact of the textile industry – sustainability and recycling and upcycling versus disposable/fast fashion/single use items • Know about and make links with local community organisations who champion recycling – The Recycle Yard, Ossett. Organise visit from the owner to school. Digital Aspect: Use IPads to create mood boards and gather design ideas for cushions/patterns/fabrics and embellishments	
Vocab	**Pins, thread, cotton, stitch names – back, running, cross, embellishment, design, fabric types eg cotton, denim, linen, silk, organza, felt) pattern pieces, seams, fasteners, recycling, sustainability** *Teacher Information – Utility Fashion: In 1942 'utility' fabrics were introduced – standard material produced in large quantities. The government was convinced fashion could help win the war – by keeping morale up on the Home Front. It turned to Britain's top designers to create clothing ranges that worked within these restrictions but didn't skimp on style. The result was a profound shift in the British clothing industry that permanently changed the relationship between London's fashion houses and the high street. Following the War, emergence of fashion houses such as Chanel and Schiaparelli*	

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	Spring 2	Spring 1
Topic	**Food Technology** Children will prepare and cook a variety of savoury spring rolls	**No Focus**
Knowledge	• Know how to research chefs (eg Ken Hom) and learn about key ingredients in chinese cuisine • Know how to research different recipes by using recipe books, online recipe websites, YouTube videos • Know about the seasonality and sources of different food ingredients • Know how to identity the ingredients contained in different foods (spring rolls)and create a design for their spring roll – digital aspect • Know how to use different slicing techniques safely • Know how to use different chopping techniques safely • Know how to use different grating techniques safely • Know how to produce their own recipes • Know how to assemble and bake a savoury dish (spring rolls) • Know how to evaluate the taste of food • Know how to evaluate the aesthetic appeal of food Digital Aspect: Create exploded diagrams for the ingredients of their spring rolls	
Vocab	**flavour, aesthetic appeal, recipe, ingredients, vegetables, dressing, method, chop, grate, slice, bake, Fahrenheit, Centigrade, utensils, seasonality**	

DT Curriculum 2026/27 – Years 5 & 6

	Summer 1	Summer 2
Topic	**<u>Pulleys and Levers – Bridges Topic – linked to Whitby swing bridge and residential trip.</u>** Children will investigate and construct a model of a bridge with moving parts.	**<u>No Focus</u>**
Knowledge	• Know about different iconic bridges in the UK and around the world (such as London Tower Bridge, Grand Canyon glass bridge, Sydney Harbour Bridge, Clifton suspension bridge) • Know about key designers and engineers of famous bridges e.g Isambard Kingdom Brunel • Know about different types of bridge structure (e.g truss bridge, suspension bridge, arch bridge) • Know how to initially explore bridge design and create stronger more stable structures just using paper with block supports • Know about Whitby swing bridge and how swing bridges work, using video sources and first-hand experience when visiting Whitby on residential • Know how to create a bridge design (which could include an orthographic plan) including exploded diagrams of pivots/levers. Draw these onto squared paper. • Know how to make small scale mock-ups of pivots • Know how to produce a bridge structure using a range of materials—cardboard/paper; spaghetti; wooden structures (PlanBee website) • Create a moving part (simple pulley)which could be used to operate a bridge Digital Aspect: Know how to program Lego WeDo 2.0 Kits to design, construct and programme a bridge which could lift and drop in order for vehicles to pass over and to allow ships to pass underneath *Teacher information - In its closed position, a swing bridge carrying a road or railway over a river or canal, for example, allows traffic to cross. When a water vessel needs to pass the bridge, road traffic is stopped (usually by traffic signals and barriers), and then motors rotate the bridge horizontally about its pivot point.*	
Vocab	**Engineer, architect, architecture, iconic, innovation, design criteria, aesthetic, functionality, build, sustainability, structure, viaduct, truss, arch, suspension, swing, pivot, lever, load bearing, construct, sketch, diagram, exploded diagram, small scale, mock-up, prototype, program, end user, consumer, materials – steel, brick, glass, wood** *In addition – children should know about key architects/structures from a range of eras and cultures (e.g Sydney Opera House– Jorn Utzon; The Shard - Renzo Piano; Taj Mahal - Ustad Ahmad; Heydar Aliyev Centre— Zaha Hadid; St Paul's Cathedral – Sir Christopher Wren)*	