Gosford Park Primary School

DT PROGRESSION

YEAR 1 TO YEAR 6

Structures | Food | Electronics | Textiles | Moving Parts

Topics	Term 1 – Aut 2 (12th-16th Dec)	Term 2 – Spr 2 (27th Mar –31st Mar)	Term 3 – Sum 2 (26th June – 30th June)
Year 1	***UK Countries (T)*** **Textiles: Bunting** *(To explore different ways of joining fabrics- cutting, gluing, stapling, threading by hand and pinning)*	***Animals (Sc)*** ***Food** – Farm to Fork Salads. Garden + Fruit*	***Transports(T)*** ***Materials (Sc)*** *Levers + Slides Moving Pictures/Cards*
Year 2	***World (T)*** ***Materials (Sc)** - which materials are appropriate* *Structures – Bridges eg Tower bridge/3 pigs – straws, lolly sticks, tape, glue.*	***Christopher Columbus (T)*** ***Neil Armstrong (T)*** *Axels and Wheels eg Design a sand buggy (mars rover)*	***Non-European Study (Kenya) (T)*** ***Living Things (Sc)*** ***Cooking** – **Plantain crisps***
Year 3	***Stone age to Iron age(T) Rocks (Sc)*** *Stone Age and Iron age(T)* *Rocks(Sc)* *Linkages + Levers – Moving Picture* *(eg How to lift a large rock (Stone Age) or a Celts catapult).*	***Romans (Invaders) (T)*** ***Animals – Muscles and Skeletons (Sc)*** *Food/Cooking – Bake Healthy Cakes/biscuits in an Oven eg Carrot cakes, Beetroot Brownies*	***Volcanoes and Earthquakes (T)*** *Forces and magnets (Sc)* Cams using Box structure/wood dowels
Year 4	***Ancient Egyptian (T)*** ***(Autumn 2 – Electricity)(Sc)*** ***Basic wooden Structure – Frames** – for Egyptian picture (Autumn 2 or 1 if preferred?)* ***Eg Using Art work of Egyptian Goddess Maat - Art or Frame 1st ?***	***Region in the UK- London (T)*** ***Materials (Sc)*** ***Animals (Sc)**– Food Chains* ***Food/Cooking** – Cooked stew eg Cockney or Street food … Homeless … soup kitchen etc (cooked on **Hob** and **Oven**)*	***Viking & Anglo Saxons (T)*** ***Living things (Sc)*** **Textile/Sewing Make,** **Can be switched with wooden Structure Unit)** **Sound (Sc)**
Year 5	***Ancient Greece (T)*** ***Autumn 2 – Earth and Space (Sc)*** Wood 3D structure – Greek Temple (Aut 2)	**European country – Barcelona (T)** ***Life Cycles – life cycles (Sc)*** Food/Cooking Mediterranean Diet - Grill/BBQ – Complete Meal – Fish based	***Industrial revolution to Modern day Coventry (T)*** ***1 + 2 Materials (properties and change of matter)(Sc)*** D&T Summer - Pulleys eg lifting equipment- pulleys
Year 6	***CRIME AND PUNISHMENT (T)*** ***Light (Sc)*** ***D &T Electrical (Aut 2) - Design a pressure pad to alert when a burglar is outside a property.***	***N & S America - Amazon (T)*** ***(Evolution Spring 2 and Summer 1)*** *D & T Use a Computer program to control a product – Using Lego Spark*	***Mayan Civilisation (T)*** ***Animals- circulatory system (Sc)*** *Application of DT skills* *(to include Food/cooking)– Mini Enterprise*

Reception Medium Term Plan

		Artist	Technical Knowledge	Exploring and Planning	Making
Autumn	**People who help us** **Celebrations**	Derek Gores	To identify different materials e.g., card, paper, string To identify different tools e.g., scissors, hole punch, staple, sticky tape, masking tape, glue stick. To know different ways to combine materials -	Explore different materials freely, to develop their ideas about how to use them and what to make.	Join different materials and explore different textures.
Spring	**Great outdoors**	Antony Gormley		Explore, use and refine a variety of artistic effects to express their ideas and feelings	Return to and build on their previous learning, refining ideas and developing their ability to represent them.
Summer	**Mega structures**	Zaha Hadid	**End of Summer**: ELG: Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. Share their creations, explaining the process they have used. Make use of props and materials when role playing characters in narratives and stories.		

Year One and Two **Medium Term Plan**

Area of DT		Evaluate products	Technical Knowledge	Explore	Design	Making	Evaluate	Equipment / Tools								
	Year 2	Record simple opinions towards a product / design Explain why they have an opinion on whether a product is good or bad	To make axles and wheels	Use templates and models to learn key skills Follow instructions given	Brief will be given Success criteria to be given Annotate a simple drawing making notes about materials and techniques	Use their design to choose key equipment and materials needed	**Autumn**	***UK Countries*** **Textiles** Bunting Task – To design and make some bunting	Year 1	Say what they like and dislike about a product / design Identify if a product works or not Identify the materials a design / product is made from	Learn how to join fabric together with glue Forward stich	Use templates and models to learn key skills Follow instructions given	Brief will be given Success criteria to be given Talk about what they want to design and how they are going to design it Draw and label what the final product should look like	Follow instructions to select the correct tools and materials	Say what they like / dislike about their product	Fabric Plastic/ large needles Thread/ wool Glue
	Year 2	Record simple opinions towards a product / design Explain why they have an opinion on whether a product is good or bad	To make axles and wheels	Use templates and models to learn key skills Follow instructions given	Brief will be given Success criteria to be given Annotate a simple drawing making notes about materials and techniques	Use their design to choose key equipment and materials needed		***World*** **Structures** Task-Make a bridge	Year 2	Record simple opinions towards a product / design Explain why they have an opinion on whether a product is good or bad	How a range of resources can be made stronger and stiffer Understand what is meant by stable (doesn't wobble – base is even) Adjust to make bases stable	Use templates and models to learn key skills Follow instructions given	Brief will be given Success criteria to be given Annotate a simple drawing making notes about materials and techniques	Use their design to choose key equipment and materials needed	State whether their product met the simple criteria	Stapler Lollipop stocks Straws Sticks Glue Masking tape

Area of DT		Evaluate products	Technical Knowledge	Explore	Design	Making	Evaluate	Equipment / Tools								
Transport **Levers and slides** Task- to create a moving picture	Year 1	Say what they like and dislike about a product / design Identify if a product works or not Identify the materials a design / product is made from	Use levers in their products Use sliders in their products	Use templates and models to learn key skills Follow instructions given	Brief will be given Success criteria to be given Talk about what they want to design and how they are going to design it Draw and label what the final product should look like (front only)	Follow instructions to select the correct tools and materials										

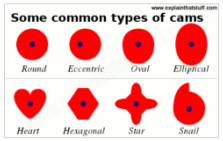
Area of DT		Evaluate products	Technical Knowledge	Explore	Design	Making	Evaluate	Equipment / Tools								
Non EU country Kenya **Food** Make plantain crisps	Year 2	Record simple opinions towards a product / design Explain why they have an opinion on whether a product is good or bad	To know why we need basic hygiene when preparing food (tools and worktops) Know where UK food comes from – animals and plant Know what makes a varied diet Chop, mash and slice food	Use templates and models to learn key skills Follow instructions given	Brief will be given Success criteria to be given Annotate a simple drawing making notes about materials and techniques	Use their design to choose key equipment and materials needed	**Spring**	***Animals*** **Food** – Farm to fork salads. Task: To make their own salad bowl/ fruit salad. ***Christopher Columbus/ Neil Armstrong*** **Structures- axels and wheels** Task- To create a moving vehicle/ moon buggy	Year 1	Say what they like and dislike about a product / design Identify if a product works or not Identify the materials a design / product is made from	To know why we need basic hygiene when preparing food (clean hands etc) Know where UK salad and veg come from Know what makes a healthy diet Slice soft fruit with a blunt knife	Use templates and models to learn key skills Follow instructions given	Brief will be given Success criteria to be given Talk about what they want to design and how they are going to design it Draw and label what the final product should look like (front only)	Follow instructions to select the correct tools and materials	Say what they like / dislike about their product	Blunt knife Chopping board

Year Three and Four
Medium Term Plan

	Area of DT		Evaluate products	Technical Knowledge	Explore	Design	Making	Evaluate	Equipment / Tools
Autumn	***Stone / Iron Age*** **Moving parts** - moving picture with linkages and levers	Year 3	Investigate a range of existing products identifying strengths and weaknesses	Use linkages and levers for moving parts	Evaluate if their mock ups are successful	Gather information about the needs and wants from an individual / group Generate their own criteria reflecting research Annotate front and back / side designs with information about technical choices and materials selected Describe the purpose of their products Explain how their products will work	Make annotations during the making process to reflect changes made – annotate on the plan	Evaluate their products against their own criteria Suggest ways in which to improve their product that reflects the evaluation	Card Paper Split pins Glue
	Ancient Egypt **Structure** - making wooden picture frames	Year 4	Investigate a range of existing products identifying strengths and weaknesses Know why certain materials have been used in a product	To join wood – butt joints To strengthen joints 2D (reinforce) To saw wood at a 45-degree angle To measure accurately To join a wide range of materials successfully	Evaluate if their mock ups are successful Make simple changes to their design	Gather information about the needs and wants from an individual / group Generate their own criteria reflecting research Annotate front and back / side designs with information about technical choices and materials selected Describe the purpose of their products Explain how their products will work		Evaluate their products based on feedback from others Suggest ways in which to improve their product that reflects the evaluation	Low melt glue guns (take advice before use) Wooden dowls
Spring	***Romans/ Animals*** **Food/ cooking**: bake healthy cakes/ biscuits	Year 3	Investigate a range of existing products identifying strengths and weaknesses Know why certain materials have been used in a product	Understand seasonality of foods in the UK Know which foods are grown Know which food is reared Use a hob and oven to cook	Evaluate if their mock ups are successful	Consider aesthetic qualities of the design for the final user. Design to meet these needs. Explain options considered during the design process, indicating preferred choice	Make annotations during the making process to reflect changes made – annotate on the plan	Evaluate their products against their own criteria Suggest ways in which to improve their product that reflects the evaluation	Whisk Hob Grater Oven trays Oven gloves oven Sharp knife Hob Pan

	Area of DT		Evaluate products	Technical Knowledge	Explore	Design	Making	Evaluate	Equipment / Tools
	Regions- London **Food/ cooking**: soup kitchen/ soup	Year 4	Know why certain materials have been used in a product		Make simple changes to their design	Consider aesthetic qualities of the design for the final user. Design to meet these needs. Explain options considered during the design process, indicating preferred choice		Evaluate their products based on feedback from others	
Summer	***Volcanoes and Earthquakes*** **Forces and magnets**:	Year 3	Investigate a range of existing products identifying strengths and weaknesses		Evaluate if their mock ups are successful	Gather information about the needs and wants from an individual / group Generate their own criteria reflecting research Annotate front and back / side designs with information about technical choices and materials selected Describe the purpose of their products Explain how their products will work		Evaluate their products against their own criteria Suggest ways in which to improve their product that reflects the evaluation	
	Vikings Textiles/ sewing: create a reusable bag	Year 4	Know why certain materials have been used in a product	Accurately assemble, join and combine a range of materials Running, cross stitch	Make simple changes to their design	Consider aesthetic qualities of the design for the final user. Design to meet these needs. Explain options considered during the design process, indicating preferred choice Designs show cross sections and exploded views	Make annotations during the making process to reflect changes made – annotate on the plan	Evaluate their products based on feedback from others	Needles Felt Fine thread Silks Beads Buttons Different textured fabric

Year Five and Six **Medium Term Plan**

	Area of DT		Evaluate products	Technical Knowledge	Explore	Design	Making	Evaluate	Equipment / Tools
Autumn	***Hooray for the USA*** **CAM** A cam tourist toy to reflect a country in the Americas Sell the toys / Cost per play at a school event	Year 5	Investigate a range of existing products making comparisons between them Critically evaluate the quality of design (aesthetics and functions)	To make cams for moving parts Axle Crank Handle Follower Cams: cams link  	To explore a wide range of resources identifying the pro and cons of using the various resources trialled	Identify who they are designing for and its purpose Design products based on resources available to them. Find creative solutions when resources are limited Designs show exploded views	Make annotations during the making process to reflect changes made to overcome difficulties in functions and aesthetics	Compare their designs to designers studied. Make detailed evaluations for aesthetics and function	Cams Wheels Crafting knife Laminator Wire Saw Hot melt (advice needed) Card
		Year 6	Investigate a range of existing products comparing the technical structures chosen by the designer Critically evaluate how the designs are suitable / not suitable for the consumer / user		Know how budget and profit could change their designs / products	Ensure the needs of the user is reflected in annotations (functions and aesthetics) Designs show cross sections and exploded views Make annotations to explain how different parts work within their design Make design choices within a budget		Make evaluations to reflect the outcomes of budget and profit	
Spring	***Let the River Run*** **Food -** Create a balanced dish for a Mother's day lunch (or similar Easter Celebrations) Grill, Bake, Prep.	Year 5	Investigate a range of existing products making comparisons between them Critically evaluate the quality of design (aesthetics and functions)	Know which food is 'caught' Prepare a balanced meal reflecting a healthy plate Use a range of cooking techniques including the addition of grill or bbq	To explore a wide range of resources identifying the pro and cons of using the various resources trialled	Identify who they are designing for and its purpose Design products based on resources available to them. Find creative solutions when resources are limited Designs show exploded views	Make annotations during the making process to reflect changes made to overcome difficulties in functions and aesthetics	Compare their designs to designers studied. Make detailed evaluations for aesthetics and function	Pestle and mortar Grill / bbq Skewers Fridge Hob Oven All equipment in KS2 so far
		Year 6	Investigate a range of existing products comparing the technical structures chosen by the designer Critically evaluate how the designs are suitable / not suitable for the consumer / user		Know how budget and profit could change their designs / products	Ensure the needs of the user is reflected in annotations (functions and aesthetics) Designs show cross sections and exploded views Make annotations to explain how different parts work within their design Make design choices within a budget	Make annotation to record changes made to keep to budget.	Make evaluations to reflect the outcomes of budget and profit	

	Area of DT		Evaluate products	Technical Knowledge	Explore	Design	Making	Evaluate	Equipment / Tools
Summer	***Extraordinary Egyptians*** **Structures** - create a tomb (structure) for a modern Pharoah	Year 5	Investigate a range of existing products making comparisons between them Critically evaluate the quality of design (aesthetics and functions)	To join wood – butt joints To strengthen joints 2D (reinforce) To saw wood at a 45 degree angle To measure accurately	To explore a wide range of resources identifying the pro and cons of using the various resources trialled	Identify who they are designing for and its purpose Design products based on resources available to them. Find creative solutions when resources are limited Designs show exploded views	Make annotations during the making process to reflect changes made to overcome difficulties in functions and aesthetics	Compare their designs to designers studied. Make detailed evaluations for aesthetics and function	Crafting knife Laminator Wire Saw Hot melt (advice needed) Card Angle cutter Different sized wood Different thicknesses of card
		Year 6	Investigate a range of existing products comparing the technical structures chosen by the designer Critically evaluate how the designs are suitable / not suitable for the consumer / user	To reinforce joints on a complex structure (3D)	Know how budget and profit could change their designs / products	Ensure the needs of the user is reflected in annotations (functions and aesthetics) Designs show cross sections and exploded views Make annotations to explain how different parts work within their design Make design choices within a budget	Make annotation to record changes made to keep to budget.	Make evaluations to reflect the outcomes of budget and profit	

Year Five and Six
Medium Term Plan Year B

	Area of DT		Evaluate products	Technical Knowledge	Explore	Design	Making	Evaluate	Equipment / Tools
Autumn	***World War 2*** **Food** – make bread (Link to WW2 rationing)	Year 5	Investigate a range of existing products making comparisons between them Critically evaluate the quality of design (aesthetics and functions)	To know and understand the term processed To make bread Know the role of yeast in the bread making process Combine different ingredients to vary the taste	To explore a wide range of resources identifying the pro and cons of using the various resources trialled	Identify who they are designing for and its purpose Design products based on resources available to them. Find creative solutions when resources are limited Designs show exploded views	Make annotations during the making process to reflect changes made to overcome difficulties in functions and aesthetics	Compare their designs to designers studied. Make detailed evaluations for aesthetics and function	Pestle and mortar Skewers Fridge Hob Oven Cling film / foil All equipment in KS2 so far
		Year 6	Investigate a range of existing products comparing the technical structures chosen by the designer Critically evaluate how the designs are suitable / not suitable for the consumer / user		Know how budget and profit could change their designs / products	Ensure the needs of the user is reflected in annotations (functions and aesthetics) Designs show cross sections and exploded views Make annotations to explain how different parts work within their design Make design choices within a budget	Make annotation to record changes made to keep to budget.	Make evaluations to reflect the outcomes of budget and profit	
Spring	***Island Hopping*** **Gears**: Biomes car using a kit with gears. A car for a particular biomes Car must self-propel	Year 5	Investigate a range of existing products making comparisons between them Critically evaluate the quality of design (aesthetics and functions)	To know and use gears	To explore a wide range of resources identifying the pro and cons of using the various resources trialled	Identify who they are designing for and its purpose Design products based on resources available to them. Find creative solutions when resources are limited Designs show exploded views	Make annotations during the making process to reflect changes made to overcome difficulties in functions and aesthetics	Compare their designs to designers studied. Make detailed evaluations for aesthetics and function	Gears Wheels Elastic bands Ballons Crafting knife Laminator Wire Saw Hot melt (advice needed) Card Angle cutter Different sized wood Different materials e.g. cellophane plastic Bubble wrap

	Area of DT		Evaluate products	Technical Knowledge	Explore	Design	Making	Evaluate	Equipment / Tools
		Year 6	Investigate a range of existing products comparing the technical structures chosen by the designer Critically evaluate how the designs are suitable / not suitable for the consumer / user	Accurately assemble, join and combine a range of materials	Know how budget and profit could change their designs / products	Ensure the needs of the user is reflected in annotations (functions and aesthetics) Designs show cross sections and exploded views Make annotations to explain how different parts work within their design Make design choices within a budget		Make evaluations to reflect the outcomes of budget and profit	
Summer	**Blue Planet** **Electronics:** an electric board game using simple circuits and switches	Year 5	Investigate a range of existing products making comparisons between them Critically evaluate the quality of design (aesthetics and functions)	Use electrical systems within a design - incorporating series circuits (switches, bulbs, buzzers and motors)	To explore a wide range of resources identifying the pro and cons of using the various resources trialled	Identify who they are designing for and its purpose Design products based on resources available to them. Find creative solutions when resources are limited Designs show exploded views	Make annotations during the making process to reflect changes made to overcome difficulties in functions and aesthetics	Compare their designs to designers studied. Make detailed evaluations for aesthetics and function	Crafting knife Laminator Wires Bulbs Buzzer Batteries Foil Paper Clips Saw Hot melt (advice needed) Card Angle cutter Different sized wood Different thicknesses of card
		Year 6	Investigate a range of existing products comparing the technical structures chosen by the designer Critically evaluate how the designs are suitable / not suitable for the consumer / user	Include a range of technical skills within one product.	Know how budget and profit could change their designs / products	Ensure the needs of the user is reflected in annotations (functions and aesthetics) Designs show cross sections and exploded views Make annotations to explain how different parts work within their design Make design choices within a budget		Make evaluations to reflect the outcomes of budget and profit	