DT		Autumn	Spring	Summer
Year 1 & 2	Year A	**All About Me – Photo Frame** Follow order of instructions Measure, mark out, assemble, and join components **Design:** -use own ideas to design something and describe how their own idea works -Explain to someone else how they want to make their product and make and simple plan before making -Explain why they have chosen specific textiles **Making:** -Use own ideas to make something -choose appropriate resources and tools -choose tools and materials and explain why they have chosen them -measure materials to use in a model structure. **Evaluating:** -Explain what works well and not so well in the model they have made -Explain what went well with their work **Technical Knowledge:** -make their own model stronger -make a model stronger and more stable **All About Me – Moving Limbs Person** Cut and join components in a variety of ways Use finishing techniques, including those from art learning **Design:** -Design a product which moves **Making:** -Make a product which moves -Join materials and components in different ways -choose tools materials and explain why they have chosen them -Choose appropriate tools and resources **Evaluating** -Describe how something works - Explain what works well and not so well in the model they have made -Explain what went well with their work	**Toys – Bears Ears** Know textile products can be assembled from a symmetrical fabric template. Sew parts together and stuff Identify what they like/ dislike about their finished product and suggest how it could be improved **Design:** -Use own ideas to design something -Explain why they have chosen different textiles **Making:** -Use their own ideas to make something -Join materials and components in a variety of ways **Evaluating** -Explain what works well and not so well in the model they have made -Explain what went well with their work Technical knowledge -Make their own model stronger -Make a model stronger and more stable **Trains Planes and Automobile – Moving Vehicle - biplane** wheels and axles- biplanes Build a biplane by following instructions, design and make own axles and choose wheels **Design:** -Think of an idea and plan what do next -Design a product which moves **Making:** -Make a product which moves -Use appropriate resources and tools and explain why they have chosen them -Measure materials to use in a model structure **Evaluating:** -Explain what works well and not so well in the model they have made	**Textiles- weaving** Group weaving, Explore fabric, string & yarns, Explore tying, knotting, fraying, fringing, pulling, twisting and plaiting,

			-Explain what went well with their work Technical knowledge: -use wheels and axles when appropriate to do s	
	Year B	**Design** Bridges- freestanding structure Understand how freestanding structures can be made stronger, stiffer, and more stable. Know the features of the historical artefacts and buildings their work will be inspired by **Design:** -Use own ideas to design something and describe how their own idea works -Think of an idea and plan what to do next -Explain to someone else how they want their product and make a simple plan before making **Making:** -Use own ideas to make something -Choose appropriate resources and tools and explain why they have chosen them -Measure materials to use in a model or structure -Join materials and components in different ways **Evaluating:** - Explain what works well and not so well in the model they have made -Explain what went well with their work Technical Knowledge: -make their own models stronger Make a model stronger and more stable **Farming** Understand where food comes from **Space – Rockets** Model ideas by exploring materials, components, construction and by making templates and mock ups Use knowledge of existing models to help come up with ideas. **Designing** -Explain to someone else how they want to make their product and make a simple plan before making Making	**Angry Planet** Designing a cleaning robot Generate ideas by drawing on own experiences State what products they are designing and making, stating what their product is for and whether their products are for themselves or other users Say how their product will work Say how they will make their products suitable for their intended users **Designing** -Use own ideas to design something and describe how their own idea works -Design a product which moves -Explain to someone else how they want to make their product and make a simple plan **Mini-beasts – Mini-beast cards** - sliding mechanisms, flaps and hinges Select and use a range of materials, tools and components, including construction, materials, textiles, and mechanical components, explaining their choices Assemble, join and combine materials and components Identify the movement of simple mechanisms such as levers and sliders Use finishing techniques, including those from art learning **Design** -Design a product which moves -Explain to someone else how they want to make their product and make a simple plan -Think of an idea and plan what to do next **Making** -Make a product which moves -Choose appropriate resources and tools and explain why they have chosen them -Join materials and components in different ways	**Textiles- dyeing** Explore natural/food dyes, peg tie dye, **Textiles- stitching** Thread needles and beads, use running stitch on binka/hessian, add buttons, In The Garden **In The Garden – IT Garden Design** Develop and communicate ideas by talking and drawing Use ICT where appropriate, to develop and communicate their ideas **Designing** -Use own ideas to design something and describe how their own idea works -Design a product which moves -Explain to someone else how they want to make their product and make a simple plan Holidays **Holidays – Kites** Use simple design criteria to develop their ideas Select from a range of materials and components according to their characteristics Make appropriate verbal judgements about their products and ideas against design criteria Suggest how the products and ideas of both their work and their peers work could be improved **Design** -Use own ideas to design something and describe how their own idea works -Explain to someone else how they want to make their product and make a simple plan before making -Explain why they have chosen specific textiles -Think of an idea and plan what to do next **Making** -Use own ideas to make something -Choose appropriate materials and explain why they have chosen them -Join materials and components in different ways

		-Choose appropriate resources and tool and explain why they have chosen them -Join materials and components in different ways **Evaluating** - Explain what works well and not so well in the model they have made -Explain what went well with their work	**Evaluating** - Explain what works well and not so well in the model they have made -Explain what went well with their work	-Measure materials to use in a model or structure **Evaluating** - Explain what works well and not so well in the model they have made -Explain what went well with their work -Describe how something works Technical Knowledge -Make their own model stronger -Make a model stronger and more stable
Year 3 & 4				
	Year A	**<u>Toys – Magnetic Car</u>** (Make frame- wooden rectangular wooden axle, cardboard wheels-choice size, cardboard corners, design body – racing cars for toy shop) **Design**: -Prove that a design meets a set criteria -choose a material for both suitability and its appearance -Persevere and adapt work when original ideas do not work **Making:** -Work accurately to measure, make cuts and make holes -Measure accurately **Evaluating:** -Explain how to improve a finished model -Evaluate and suggest improvements for design -Evaluate products for both purpose and appearance. **Tech Knowledge:** -Know how to strengthen a product by stiffening a given part of the structure.	**<u>Trains Planes and Automobiles – Electric Cars</u>** Tech card model-build using instructions, include circuit power by fan, wheel choice for speed/accuracy) **Design:** -Choose a material for it's suitability Making: -Follow a step-by-step plan, choosing the right equipment and materials -Make a product which uses both electrical and mechanical components -know which material is likely to give the best outcome **Evaluating:** -Know why a model has, or has not, been successful -Explain how the original design has been improved. **Technical Knowledge:** -links scientific knowledge by using lights, switches or buzzers -use electrical systems to enhance the quality of the product	**<u>Textiles- sewing, dyeing, patchwork & applique</u>** Sew on binka/hessian, cross stitch & other mark making techniques, embroidery techniques, Print on fabric, Explore applique and patchwork, 2 colour tie dye using elastic bands/string, **<u>Zoo – Animal Enclosure</u>** (Design for safety, animal needs and visitor viewing, choice of materials and structure composition) **Design:** -Prove that a design meets a set criteria -Design a product and make sure it looks attractive -use ideas from other people when designing -produce a plan and explain it -communicate ideas in a range of ways, including by sketches and drawings which are annotated **Making:** -Select the most appropriate tools and techniques for a given task -Work accurately to measure, make cuts and holes -know which tools to use for a particular task and show knowledge of handling the tool

				-know which material is likely to give the best outcome -Measure accurately **Evaluating:** -Explain how to improve a finished model – Evaluate and suggest improvements for design -Present a product in an interesting way **Technical Knowledge:** -Know how to strengthen a product by stiffening a given part or reinforcing part of the structure
	Year B	**Design – Design and make a new chocolate bar** (Chocolate- Design, cross-section, prototypes, branding, product plan/board, advertise IT usage, packaging, chocolate convention) **Design:** -Prove a design meets a set criteria -design a product and make sure that it looks attractive -choose a material for both suitability and its appearance -use ideas from other people when designing -Communicate ideas in a range of ways, including by sketches and drawings which are annotated **Making:** -Select the most appropriate tools and techniques for a given task -Know which material is likely to give the best outcome **Evaluating** -Know why a model has, or has not been successful -Evaluate and suggest improvements for design -Present a product in an interesting way	**Minibeasts** (Moving Bugs – pneumatic Syringes, balloons – Moving body parts or opening of mouth) **Design:** -Prove that a design meets a set criteria -Design a product and make sure that it looks attractive -Choose a material both for it's suitability and its appearance -Persevere and adapt work when original ideas do not work -Communicate ideas in a range of ways, including by sketches and drawings which are annotated **Making:** -Select the most appropriate tools and techniques for a given task = and how to handle them -Work accurately to measure, make cuts and make holes -Know which materials are likely to give the nest outcome **Evaluating:** -Explain how to improve a finished model -Evaluate products for both their purpose and appearance -present a product in an interesting way **Technical Knowledge:** -Know how to strengthen a product by stiffening a given part or reinforce a pat of the structure -Use a simple IT program within the design -Use IT, where appropriate, to add to the quality of the product	**In The Garden** (Design and make a healthy meal – food bank supplied, classify into food groups, plan meal, discuss ingredients and relate to healthy plate) Apply principles of a healthy and varied diet Prepare a cook savoury dishes Use a range of cooking techniques **Design:** -Prove that a design meets a set criteria -Produce a plan and explain it -Use ideas from other people when designing **Food Technology:** -Describe how food ingredients come together -Talk about which food is healthy and which food is not -Know how to be hygienic and safe when using food Being creative element to the food product being designed

Year 5 & 6				
	Year A		**<u>Toys – Make a Victorian Toy</u>** Children make a toy using cams, first with a prototype premade box, then final wooden-framed version after evaluation **Design** • come up with a range of ideas after collecting information from different sources, use market research to inform plans and ideas. • produce a detailed, step-by-step plan • explain how a product will appeal to a specific audience **Making** • use a range of tools and equipment competently • make a prototype before making a final version • know which tool to use for a specific practical task • know how to use any tool correctly and safely • know what each tool is used for • explain why a specific tool is best for a specific action **Evaluating** • suggest alternative plans; outlining the positive features and draw backs • evaluate appearance and function against original criteria • know how to test and evaluate designed products	**Textiles** Dyeing- batik, using natural dies, Sewing for decoration and joining, Textiles within collage, Painting or printing on fabric as a basis for embroidery, Soft sculpture- collaborative work- Lucy Sparrow, **<u>In the Garden</u>** Children use a variety of materials to create a bird box **Design** • come up with a range of ideas after collecting information from different sources, use market research to inform plans and ideas. • produce a detailed, step-by-step plan • explain how a product will appeal to a specific audience **Making** • Use a range of tools and equipment competently • Know which tool to use for a specific practical task • Know how to use any tool safely and correctly • Know what each tool is used for • Explain why a specific tool is best for a specific action **Evaluating**

			• evaluate product against clear criteria **Technical Knowledge** • use knowledge to improve a made product by strengthening, stiffening or reinforcing **<u>Trains, Planes and Automobiles</u>** Investigate gears in a powered car and a sailboat (Science link) **Design** • design a product that requires pulleys or gears **Making** • use a range of tools and equipment competently • know which tool to use for a specific practical task • know how to use any tool correctly and safely • know what each tool is used for • explain why a specific tool is best for a specific action • make a product that relies on pulleys or gears **Evaluating** • suggest alternative plans; outlining the positive features and draw backs • evaluate appearance and function against original criteria • evaluate product against clear criteria	• suggest alternative plans; outlining the positive features and draw backs • evaluate appearance and function against original criteria • know how to test and evaluate designed products • Evaluate product against clear criteria **Technical Knowledge** • Use knowledge to improve a made product by strengthening, stiffening or reinforcing

			Technical Knowledge • use electrical systems correctly and accurately to enhance a given product • use knowledge to improve a made product by strengthening, stiffening or reinforcing • links scientific knowledge to design by using pulleys or gears • use knowledge to improve a made product by strengthening, stiffening or reinforcing	
	Year B		**<u>Design</u>** Design and make a Christmas toy using circuits; use a range of cutting tools **Design** • come up with a range of ideas after collecting information from different sources, use market research to inform plans and ideas. • produce a detailed, step-by-step plan • explain how a product will appeal to a specific audience • follow and refine original plans • justify planning in a convincing way • show that culture and society is considered in plans and designs **Making** • use a range of tools and equipment competently • know which tool to use for a specific practical task	**<u>Holidays</u>** Children use IT control software/hardware to design and make an entertainment product **Design** • come up with a range of ideas after collecting information from different sources, use market research to inform plans and ideas. • produce a detailed, step-by-step plan • explain how a product will appeal to a specific audience • follow and refine original plans • justify planning in a convincing way • show that culture and society is considered in plans and designs **Evaluating** • suggest alternative plans; outlining the positive features and draw backs

			• know how to use any tool correctly and safely • know what each tool is used for • explain why a specific tool is best for a specific action **Evaluating** • suggest alternative plans; outlining the positive features and draw backs • evaluate appearance and function against original criteria • know how to test and evaluate designed products • explain how products should be stored and give reasons • evaluate product against clear criteria **Technical knowledge** • use electrical systems correctly and accurately to enhance a given product • use knowledge to improve a made product by strengthening, stiffening or reinforcing • uses more complex IT program to help enhance the quality of the product produced, know which IT product would further enhance a specific product • use knowledge to improve a made product by strengthening, stiffening or reinforcing **<u>Space</u>** Children design and make a 3D Christmas decoration using 3D modelling and 3D pens **Design**	• evaluate appearance and function against original criteria • know how to test and evaluate designed products • explain how products should be stored and give reasons • evaluate product against clear criteria **Technical knowledge** • use electrical systems correctly and accurately to enhance a given product • use knowledge to improve a made product by strengthening, stiffening or reinforcing • uses more complex IT program to help enhance the quality of the product produced, know which IT product would further enhance a specific product • use knowledge to improve a made product by strengthening, stiffening or reinforcing

			• come up with a range of ideas after collecting information from different sources, use market research to inform plans and ideas. • produce a detailed, step-by-step plan • explain how a product will appeal to a specific audience • follow and refine original plans • show that culture and society is considered in plans and designs **Evaluating** • evaluate appearance and function against original criteria **Technical Knowledge** • Uses more complex IT programs to help enhance the quality of the product produced • Know which IT product would further enhance a specific product	

KS1 Regular cooking sessions		**Cooking** Cut food safely Weigh ingredients to use in a recipe Describe the ingredients used when making a dish or cake Prepare healthy and varied dishes Understand where food comes from Juicer, swivel peeler, whisk, measuring spoons, table knife, kitchen scissors, grater	**Cooking** Cut food safely Weigh ingredients to use in a recipe Describe the ingredients used when making a dish or cake Prepare healthy and varied dishes Understand where food comes from Juicer, swivel peeler, whisk, measuring spoons, table knife, kitchen scissors, grater	**Cooking** Cut food safely Weigh ingredients to use in a recipe Describe the ingredients used when making a dish or cake Prepare healthy and varied dishes Understand where food comes from Juicer, swivel peeler, whisk, measuring spoons, table knife, kitchen scissors, grater
KS2 Regular cooking sessions		**Cooking** • describe how food ingredients come together • weigh out ingredients and follow a given recipe to create a dish • talk about which food is healthy and which food is not • know when food is ready for harvesting • know how to be both hygienic and safe when using food • bring a creative element to the food product being designed • know how to prepare a meal by collecting the ingredients in the first place • know which season various foods are available for harvesting • explain how food ingredients should be stored and give reasons • work within a budget to create a meal • understand the difference between a savoury and sweet dish Understand and apply principles of a healthy diet. Prepare and cook savoury dishes, range of cooking techniques. Seasonality, where ingredients are grown and processed	**Cooking** • describe how food ingredients come together • weigh out ingredients and follow a given recipe to create a dish • talk about which food is healthy and which food is not • know when food is ready for harvesting • know how to be both hygienic and safe when using food • bring a creative element to the food product being designed • know how to prepare a meal by collecting the ingredients in the first place • know which season various foods are available for harvesting • explain how food ingredients should be stored and give reasons • work within a budget to create a meal • understand the difference between a savoury and sweet dish Understand and apply principles of a healthy diet. Prepare and cook savoury dishes, range of cooking techniques. Where ingredients are reared and processed	**Cooking** • describe how food ingredients come together • weigh out ingredients and follow a given recipe to create a dish • talk about which food is healthy and which food is not • know when food is ready for harvesting • know how to be both hygienic and safe when using food • bring a creative element to the food product being designed • know how to prepare a meal by collecting the ingredients in the first place • know which season various foods are available for harvesting • explain how food ingredients should be stored and give reasons • work within a budget to create a meal • understand the difference between a savoury and sweet dish Understand and apply principles of a healthy diet. Prepare and cook savoury dishes, range of cooking techniques. Where ingredients are caught and processed.
		LKS2 – garlic press, swivel peeler, blender, measuring jug, digital scales, vegetable knife, grater, hob	UKS2 – As LKS2 incl. analogue scales, kettle, grill, oven	