YEAR 4

STRUCTURES – PAVILIONS

	EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
DESIGNING	**The three Prime ELGS of Communication and Language, PSED and Physical Development provide the foundations of which all other learning is built upon.** **Specific:** **Creating with Materials 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. **People Culture and**	Use own ideas to design something Describe how their own idea works Design a product which moves Explain to someone else how they want to make their product Make a simple plan before making	Think of an idea and plan what to do next Explain why they have chosen specific criteria	Prove that a design meets a set criteria Design a product and make sure that it looks attractive Choose a material for both its suitability and its appearance	Use ideas from other people when designing Produce a plan and explain it Persevere and adapt when original ideas do not work Communicate ideas in a range of ways, including by sketches and drawings which are annotated	Come up with a range of ideas after collecting information from different sources Produce a detailed step-by-step plan Explain how a product will appeal to a specific audience Design a product that requires pulleys or gears	Use market research to inform plans and ideas Follow and refine original plans Justify planning in a convincing way Show that culture and society is considered in plans and designs

	Communities ELG Describe their immediate environment using knowledge from observation, discussion, stories, non-fiction texts, and maps.						
MAKING	**The three Prime ELGS of Communication and Language, PSED and Physical Development provide the foundations of which all other learning is built upon.** **Specific:** **Creating with Materials 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.	Use own ideas to make something Make a product which moves Choose appropriate resources and tools	Choose tools and materials and explain why they have chosen them Join materials and components in different ways Measure materials to use in a model or structure	Follow a step-by-step plan, choosing the right equipment and materials Select the most appropriate tools and techniques for a given task Make a product which uses both electrical and mechanical components Work accurately to measure, make cuts and make 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	Use a range of tools and equipment competently Make a prototype before making a final version Make a product that relies on pulleys or gears	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 specific action

EVALUATING	**The three Prime ELGS of Communication and Language, PSED and Physical Development provide the foundations of which all other learning is built upon.** **Specific:** **Creating with Materials 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.	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	Explain how to improve a finished model Know why a model has or has not been successful	Evaluate and suggest improvements for designs Evaluate products for both their purpose and appearance Explain how the design has been improved Use IT where appropriate to add to the quality of the product	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		Make their own model stronger Make a model stronger and more stable Use wheels and axles, when appropriate to do so		Know how to strengthen a product by stiffening a given part or reinforce a part of the structure Use a simple IT program within the design Know how to be hygienic and safe when using food Bring a creative element to the food product being designed		Link scientific knowledge to design by using pulleys or gears Use more complex IT program to help enhance the quality of the product produced Use electrical systems correctly and accurately to enhance a given product Know which IT product would enhance a specific product Use knowledge to improve a made product by strengthening, stiffening or reinforcing	

FOOD TECHNOLOGY		Cut food safely Weigh ingredients to use in a recipe Describe the ingredients used when making a dish or cake	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 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	Be both hygienic and safe in the kitchen 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 dish and sweet dish.

STRUCTURES – PAVILIONS

COMPOSITES

Design, make and evaluate a Pavilion

COMPONENTS

	1	2	3	4	5	End Point
	How can I make different frame structures? **What is a pavilion?**	**How can I make a stable structure that is aesthetically pleasing?** **How can different materials impact my structure?**	**How can I construct a free-standing, stable structure?** **What materials are appropriate to use for my structure?**	**What materials could be used to create different cladding techniques?** **How can I evaluate structure**	**Use as an extra lesson to finish activities if needed.**	**Children will know what the key features of a pavilion are.** **Children will understand how to create a stable, reinforces, free standing structure.** **Children will be able to choose appropriate materials and create a simple labelled diagram to follow to construct their pavilion** **Children will be able to explore how to use different**

				using design criteria?		**tools/materials to make the structure solid and stable.** **Children will evaluate their design; suggest how they overcome challenges and consider improvements they can make.**
CONCEPTS **Link to concept map**	Design	Design				Children will have designed a pavilion following a set criterion, ensuring it looks attractive and has used suitable materials.
	Influence and Impact	Influence and Impact				Children will have explored famous pavilions and gained influence of structures and use.
	Technique		Technique	Technique		Children will have followed a plan, selecting the correct equipment and materials to create their pavilion Children will use appropriate techniques to construct their pavilion.
			Critical Thinking	Critical Thinking		Children will discuss, evaluate and test their design in response to the key criteria.
SKILLS	Use ideas from other people when designing Persevere and adapt when original ideas do not work Communicate ideas in a range of ways, including by sketches and drawings which are annotated	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 Know which material is likely	Persevere and adapt when original ideas do not work 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	Persevere and adapt when original ideas do not work 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		Children will look at pavilions and discuss structure, features and use. Children will design a free standing, stable structure Children will create a free standing, stable structure Children will evaluate their decorated structures.

	Evaluate and suggest improvements for designs Know how to strengthen a product by stiffening a given part or reinforce a part of the structure	to give the best outcome Measure accurately Evaluate and suggest improvements for designs Know how to strengthen a product by stiffening a given part or reinforce a part of the structure	Measure accurately Evaluate and suggest improvements for designs Evaluate products for both their purpose and appearance Know how to strengthen a product by stiffening a given part or reinforce a part of the structure	Evaluate and suggest improvements for designs Evaluate products for both their purpose and appearance Explain how the design has been improved		
KNOWLEDGE **Z:\Hubs\Science and DT\DT\2023-2024\KAPOW\YEAR 4\STRUCTURES - Pavillions\Knowledge Organiser.pdf**	Know what a pavilion is Know how to create freestanding structures.	Know which materials would be most suitable to design and then build a stable pavilion Know who my product audience is and how can I incorporate that knowledge into my design. Follow specific design specifications.	Know how to use tools correctly. Know how to improve their model and explain why it may not have been successful. Know how to strength a free standing structure	Know how to join materials to clad a structure. Know how to use equipment safely. Select the correct materials and apply the correct techniques. Evaluate the final, clad structure		Children will look at pavilions and discuss structure, features and use. Children will design a free standing, stable structure Children will create a free standing, stable structure Children will evaluate their decorated structures.
LESSON LINK	KAPOW - STRUCTURES – PAVILIONS	KAPOW - STRUCTURES – PAVILIONS	KAPOW - STRUCTURES – PAVILIONS	KAPOW - STRUCTURES – PAVILIONS		
PROGRESSIVE VOCABULARY	design criteria natural	design criteria natural	design criteria natural	cladding design criteria		Articulate and recognise subject specific vocabulary

	structure innovative 3d shapes	structure innovative 3d shapes	structure innovative 3d shapes reinforce	natural structure innovative 3d shapes reinforce		
CURRICULUM EXPERIENCES	Children make freestanding structures with cocktail sticks and marshmallows		Children create their pavilion structure	Children clad their structure. Gallery of structures		
END POINT	Children will be able to identify the key features of a pavilion Children create innovative structures.	Children will have designed their pavilion Children will have labelled their design with the materials they are going to use.	Children will have created their pavilion structure Children will have used a range of materials to create their structure. Children will have reinforced their structure	Children will have personally evaluated their design and their execution in constructing a pavilion. Pupils will have shared their design with peers, listened to positive criticism and given positive criticism. Pupils will be able to say what they are pleased with and what they would improve.		

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