Year 5 Design Technology Subject Map

DRIVER WORDS						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Explore Create Make	Design Generate Develop Model Select Build		Investigate Evaluate Apply our understanding		Deepen our understanding innovate	

		Mechanisms-Pop Up Books	Structure-Bridges	Cooking and Nutrition-What Could Be Healthier?
SKILLS	*Design*	1.Designing a pop-up book which uses a mixture of structures and mechanisms. 2.Naming each mechanism, input and output accurately. 3.Storyboarding ideas for a book.	14.Designing a stable structure that is able to support weight. 15.Creating a frame structure with a focus on triangulation.	34.Adapting a traditional recipe, understanding that the nutritional value of a recipe alters if you remove, substitute or add additional ingredients. 35.Writing an amended method for a recipe to incorporate the relevant changes to ingredients. 36.Designing appealing packaging to reflect a recipe.
	Make	4.Following a design brief to make a pop up book, neatly and with focus on accuracy. 5.Making mechanisms and/or structures using sliders, pivots and folds to produce movement 6.Using layers and spacers to hide the workings of mechanical parts for an aesthetically pleasing result.	16.Making a range of different shaped beam bridges. 17.Using triangles to create truss bridges that span a given distance and support a load. 18.Building a wooden bridge structure. 19.Independently measuring and marking wood accurately. 20.Selecting appropriate tools and equipment for particular tasks. 21.Using the correct techniques to saws safely. 22.Identifying where a structure needs reinforcement and using card corners for support. 23.Explaining why selecting appropriating materials is an important part of the design process. 24.Understanding basic wood functional properties.	37.Cutting and preparing vegetables safely. 38.Using equipment safely, including knives, hot pans and hobs. 39.Knowing how to avoid cross-contamination. 40.Following a step by step method carefully to make a recipe.
	Evaluate	7.Evaluating the work of others and receiving feedback on own work. 8.Suggesting points for improvement.	25.Adapting and improving own bridge structure by identifying points of weakness and reinforcing them as necessary. 26.Suggesting points for improvements for own bridges and those designed by others.	41.Identifying the nutritional differences between different products and recipes. 42.Identifying and describing healthy benefits of food groups.
KNOWLEDGE	*Technical*	9.To know that mechanisms control movement. 10.To understand that mechanisms can be used to change one kind of motion into another. 11.To understand how to use sliders, pivots and folds to create paper-based mechanisms.	27.To understand some different ways to reinforce structures. 28.To understand how triangles can be used to reinforce bridges. 29.To know that properties are words that describe the form and function of materials. 30.To understand why material selection is important based on properties. 31.To understand the material (functional and aesthetic) properties of wood.	43.To understand where meat comes from - learning that beef is from cattle and how beef is reared and processed, including key welfare issues. 44.To know that I can adapt a recipe to make it healthier by substituting ingredients. 45.To know that I can use a nutritional calculator to see how healthy a food option is. 46.To understand that 'cross-contamination' means bacteria and germs have been passed onto ready-to-eat foods and it happens when these foods mix with raw meat or unclean objects.
	Additional	12.To know that a design brief is a description of what I am going to design and make. 13.To know that designers often want to hide mechanisms to make a product more aesthetically pleasing.	32.To understand the difference between arch, beam, truss and suspension bridges. 33.To understand how to carry and use a saw safely.	

DESIGN TECHNOLOGY VOCABULARY

evaluating, design brief, design criteria, innovative, prototype, user, purpose, function, functional, prototype, **design specification ,**investigate, innovative, appealing, design brief, planning, annotated sketch, **sensory evaluations,** user, model, make, **mock up,** product