

St Joesph the Worker School - DT- Termly Curriculum Map

<u>Year group</u>	<u>Autumn</u>	<u>Spring</u>	<u>Summer</u>
R	<u>Cooking and Nutrition: Soup</u> In this unit, children explore the differences between fruits and vegetables using their senses (taste, texture, smell etc.). They listen to the story 'The best pumpkin soup' and discuss the key ingredients the characters used before developing a class-based vegetable soup recipe. 1) Fantastic fruits and vegetables 2) Pumpkin soup 3) Designing soup 4) Fine motor skills 5) Making soup 6) Designing soup packaging	<u>Textiles: Bookmarks</u> Pupils develop and practise threading and weaving techniques using various materials and objects. They look at the history of the bookmark from Victorian times versus modern-day styles. The pupils apply their knowledge and skills to design and sew their own bookmarks. 1) Exploring threading 2) Paper WEAVING 3) Sewing with hessian 4) Designing bookmarks 5) Creating bookmarks 6) Evaluating bookmarks <u>Seasonal projects</u> Easter: Hanging egg decoration Spring: Flower threading	<u>Structures: Boats</u> Pupils investigate and learn about waterproof materials. They conduct a test in groups and observe what happens when they pour water through various samples before reporting back to the class what they discovered. 1) Waterproof materials 2) Floating and sinking 3) Boats 4) Investigating boats 5) Designing boats 6) Creating and testing boats
<u>KS1</u>			
1	<u>Mechanisms: Making a moving story book</u> Explore slider mechanisms and the movement they output, to design, make and evaluate a moving storybook from a range of templates. 1) Exploring sliders and movement 2) Design 3) Construction 4) Testing and evaluation	<u>Textiles: Puppets</u> Explore methods of joining fabric. Design and make a character-based hand puppet using a preferred joining technique, before decorating. 1) Joining fabrics 2) Designing my puppet 3) Making and joining my puppet 4) Decorating my puppet 5) Evaluating	<u>Cooking and nutrition: Smoothies</u> Preparing foods by cutting and juicing and selecting fruits and vegetables to create a smoothie to meet a design brief. 1) Fruits 2) Growing 3) Cutting and juicing 4) Testing ingredients 5) Making smoothies 6) Evaluating

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2	<u>Structures: Baby Bear's chair</u> Explore stability and methods to strengthen structures, to understand Baby Bear's chair weaknesses and develop an improved solution for him to use. 1) Exploring stability 2) Strengthening materials 3) Making Baby Bear's chair 4) Fixing and testing Baby Bear's chair 5) Evaluating	<u>Mechanisms: Making a moving monster or Easter- Mechanical animals</u> Explore levers, linkages and pivots through existing products and experimentation, use this research to construct and assemble a moving monster. 1) Pivots, levers and linkages 2) Making linkages 3) Designing my monster 4) Making my monster 5) Evaluating	<u>Cooking and nutrition: Balanced diet</u> Discovering the importance of a balanced diet and creating a tasty, balanced wrap to meet a design brief. 1) Food groups 2) Balanced meals 3) Preparing ingredients 4) Taste testing ingredients 5) Planning recipes 6) Creating and evaluating wraps
<u>Lower KS2</u>			
3 Sewing in Art curriculum	<u>Mechanical systems: Pneumatic toys</u> Explore pneumatic systems, then apply this understanding to design and make a pneumatic toy including thumbnail sketches and exploded diagrams. 1) Exploring pneumatics 2) Designing a pneumatic toy 3) Making pneumatic toys 4) Decorating and assembling my toy 5) Evaluating	<u>Cooking and nutrition: Eating Seasonally</u> Opportunities for children to learn about seasonal foods and create a seasonal food tart. 1) Food around the world 2) Seasonal food 3) Cutting and peeling 4) Tasting seasonal ingredients 5) Making a mock-up 6) Evaluating seasonal tarts	<u>Digital World- Wearable Technology</u> Explore virtual micro:bit and write a program that initiates a flashing LED panel. 1) Evaluating wearable technology 2) Light-up wearables 3) Programming wearable technology 4) Product concept 5) Point of sale displays 6) Focus groups
4	<u>Electrical systems: Torches</u> Identify the difference between electrical and electronic products. Evaluate a range of existing torches and their features, then develop a new functional torch design. 1) Electrical products 2) Evaluating torches 3) Torch design 4) Torch assembly 5) Evaluating	<u>Structures: Pavilions</u> Investigate and model frame structures to improve their stability, then apply this research to design and create a stable, decorated pavilion. 1) Exploring frame structures 2) Designing a pavilion 3) Pavilion frame 4) Pavilion cladding 5) Evaluating	<u>Textiles: Fastenings</u> Analyse and evaluate a range of existing fastenings, then devise a list of design criteria to design, generate templates and make a fabric book sleeve. 1) Evaluating fastenings 2) Designing my book sleeve 3) Paper mock-up and preparing fabric 4) Assembling my book sleeve 5) Evaluating

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<u>Upper KS2</u>			
5	<u>Cooking and nutrition: Developing a recipe</u> Opportunities for children to learn a simple bolognese recipe and adapt it to improve nutritional content. 1) From farm to fork. 2) Different choices 3) Nutritional value 4) Preparing ingredients 5) Designing labels 6) Making bolognese 7) Evaluating	<u>Mechanical systems: Pop-up book</u> Create a functional four-page pop-up storybook design, using lever, sliders, layers and spacers to create paper-based mechanisms. 1) Pop-up book page design 2) Making my po-up book 3) Using layers and spacers 4) Writing and illustrating 5) Evaluating	<u>Textiles: Stuffed Toys</u> Design a stuffed toy and make decisions on materials, decorations and attachments (appendages), after learning how to sew a blanket stitch. 1) Designing a stuffed toy 2) Blanket stitch 3) Details and appendages 4) Stuffed toy assembly 5) Evaluating
6	<u>Structures: Playgrounds</u> Research existing playground equipment and their different forms, before designing and developing a range of apparatus to meet a list of specified design criteria. 1) Design a new playground 2) Building structures 3) Perfecting structures 4) Playground landscapes 5) Evaluating	<u>Digital world: Navigating the world</u> Design and program a navigation tool to produce a multifunctional device for trekkers using CAD 3D modelling software. Pitch and explain the product to a guest panel. 1) Navigating the world 2) Programming a navigation tool 3) Product concept 4) 3D CAD models 5) Product pitch	<u>Electrical systems: Steady hand game</u> Understand what is meant by fit for purpose design and form follows function. Design and develop a steady hand game using a series circuit, including housing and backboard. 1) Developing through play 2) Game play 3) Base building 4) Electronics and assembly 5) Evaluating

How does Kapow Primary help our school to meet statutory guidance for D&T?

Each of our key areas links to the technical knowledge section of the Design and technology National Curriculum *or* reinforces principles learnt through exploring various methods and techniques. From KS1 to KS2, the technical knowledge descriptors build upon prior learning and/or introduce new learning.

	Structures	Mechanisms	Textiles	Electrical systems	Digital world	Cooking and nutrition
EYFS	Explore junk modelling, tinkering with temporary and permanent joins, and a range of materials. Create basic models to test in different conditions.	Explore a simple paper slider mechanism.	Explore and develop threading and weaving skills with different materials and objects.			Explore and become familiar with different fruits and vegetables, using their senses.
KS1	Build structures such as windmills and chairs, exploring how they can be made stronger, stiffer and more stable. Recognise areas of weakness through trial and error.	Introduce and explore simple mechanisms, such as sliders, wheels and axles in their designs. Recognise where mechanisms such as these exist in toys and other familiar products.	Explore different methods of joining fabrics and experiment to determine the pros and cons of each technique.	KS2 only* Create functional electrical products that use series circuits, incorporating different components such as bulbs, LEDs, switches, buzzers and motors. Consider how the materials used in these products can:	KS2 only* Learn how to develop an electronic product with processing capabilities. Apply Computing principles to program functions within a product including to control and monitor it. Understand how the history and evolution of product design lead to the on-going Digital revolution and the impact it is having in the world today.	Learn about the basic rules of a healthy and varied diet to create dishes. Understand where food comes from, for example plants and animals.
KS2	Continue to develop KS1 exploration skills, through more complex builds such as pavilion and bridge designs. Understand material selection and learn methods to reinforce structures.	Mechanical systems Extend pupils understanding of individual mechanisms, to form part of a functional system, for example: Automatas, that use a combination of cams, followers, axles/shaft, cranks and toppers.	Understand that fabric can be layered for effect, recognising the appearance and technique for different stitch and fastening types, including their: • Strength. • Appropriate use. • Design.	• Protect the circuitry. • Reflect light. • Conduct electricity. • Insulate.		Understand and apply the principles of a healthy and varied diet to prepare and cook a variety of dishes using a range of cooking techniques and methods. Understand what is meant by seasonal foods. Know where and how ingredients are sourced.