

DT NC Coverage Per Topic			
Time Traveller/Tomorrow's World			
Expressive Arts and Design: Creating with Materials 1. Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. 2. Share their creations, explaining the process they have used. 3. Make use of props and materials when role playing characters in narratives and stories. Being Imaginative and Expressive 4. Invent, adapt and recount narratives and stories with peers and their teacher. 5. Sing a range of well-known nursery rhymes and songs. 6. Perform songs, rhymes, poems and stories with others, and (when appropriate) try to move in time with music.	KS1 Design and Technology Suggested Activities - Moving Pictures/ Wheels and Axles When designing & making, pupils should be taught to: Design - design purposeful, functional, appealing products for themselves & other users based on design criteria - generate, develop, model & communicate their ideas through talking, drawing, templates, mock-ups &, where appropriate, ICT Make - select from & use a range of tools and equipment to perform practical tasks [eg cutting, shaping, joining & finishing] - select from & use a wide range of materials & components, incl construction materials, textiles & ingredients, according to their characteristics Evaluate - explore & evaluate a range of existing products, evaluate their ideas & products against design criteria Technical knowledge - build structures, exploring how they can be made stronger, stiffer & more stable - explore & use mechanisms [for example, levers, sliders, wheels and axles], in their products	LKS2 Design and Technology Mechanical Systems – Levers and Linkages SUGGESTED ACTIVITIES - Create a mechanical poster with lever and linkage mechanisms or a page for a 'pop' up book. - Explain how particular parts of their products work; how mechanical systems such as levers & linkages create movement. <i>Investigate existing lever and linkage mechanisms.</i> - Test ideas out through using prototypes. Demonstrate the safe & accurate use of measuring, marking out, cutting and joining. <i>Explore making examples of Levers & Linkages.</i> - Generate, develop, model & communicate ideas through discussion, annotated sketches, & prototypes <i>in the context of generating & developing ideas to make a moving poster.</i> - Select from & use a wider range of tools & equipment to perform practical tasks accurately <i>in the context of selecting & using the correct tools and equipment to make a moving poster.</i> - Use mechanical systems in their products. - Evaluate their ideas and products against their own design criteria & consider the views of others to improve their work <i>in the context of evaluating their moving poster.</i> (Planit Unit - Mechanical Posters)	UKS2 Design and Technology Mechanical Systems - Cams SUGGESTED ACTIVITIES – To create a moving toy which contains a cam mechanism. - Use research and develop design criteria to inform the design of innovative, functional appealing products that are fit for purpose - <i>research endangered animals that will be used in their mechanical models.</i> - Understand and demonstrate that mechanical systems have an input, process and output; <i>explain how mechanical systems, such as cams, create movement and use mechanical systems in their products.</i> - Select from and use a wider range of tools and equipment to perform practical tasks (for example cutting, shaping, joining and finishing) accurately <i>in the context of using tools and equipment to perform the job of cutting, joining and finishing wood to make a frame.</i> - Learn to use a range of tools and equipment safely and appropriately; independently take exact measurements and mark out, to within 1 millimetre; cut a range of materials with precision and accuracy; assemble, join and combine materials and components with accuracy; refine the finish using techniques to improve the appearance of their product, such as sanding. - Evaluate their ideas and products against the original design criteria, making changes as needed. (Possible Units - QCA Moving Toys / PlanIt Automata Animals)
Inventors and Inventions/Eager Explorers			
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Being Imaginative and Expressive 4. Invent, adapt and recount narratives and stories with peers and their teacher. 5. Sing a range of well-known nursery rhymes and songs. 6. Perform songs, rhymes, poems and stories with others, and (when appropriate) try to move in time with music.	mainly through discussions, comparisons and simple written evaluations; - Explain positives and things to improve for existing products; - Build simple structures, exploring how they can be made stronger, stiffer and more stable; - Talk about and start to understand the simple working characteristics of materials and components; PlanIt Unit – Pirate Paddy’s Packed lunch	Experiment with creating switches. Understand and demonstrate how electrical systems have an input and output process. Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups in the context of developing design criteria for a light. Evaluate against design criteria. Possible units - QCA Alarms / Lighting Up / Twinkl Battery Operated Lights.	products work; use annotated sketches, cross-sectional drawings (possibly including computer-aided design) to develop and communicate their ideas. Select from a range of materials and components according to their functional properties (electrical conductors and insulators) Create step-by-step plans as a guide to making; understand and demonstrate that electrical systems have an input, process and output; apply their understanding of computing to program, monitor & control a product. Assemble, join & combine materials & components with accuracy. Critically evaluate the quality of design, manufacture and fitness for purpose of products as they design and make. Possible units - QCA Fairgrounds/Controllable vehicles/PlanIt Programming Adventures
Green Planet/Eco Earth			
Expressive Arts and Design: Creating with Materials 1. Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. 2. Share their creations, explaining the process they have used. 3. Make use of props and materials when role playing characters in narratives and stories. Being Imaginative and Expressive 4. Invent, adapt and recount narratives and stories with peers and their teacher. 5. Sing a range of well-known nursery rhymes and songs. 6. Perform songs, rhymes, poems and stories with others, and (when appropriate) try to move in time with music. Physical Development: Fine Motor Skills	KS1 Design & Technology Cooking & Nutrition SUGGESTED ACTIVITIES - Sensational Salads or QCA Eat more Fruit and vegetables - use the basic principles of a healthy and varied diet to prepare dishes - understand where food comes from. - with support, follow a simple plan or recipe; - begin to select from a range of hand tools and equipment, such as scissors, graters, zesters, safe knives, juicer; - learn to use hand tools and kitchen equipment safely and appropriately and learn to follow hygiene procedures; - use a range of materials and components, including textiles and food ingredients; - assemble, join and combine materials, components or ingredients; - cut, peel and grate ingredients, including measuring and weighing ingredients using measuring cups;	LKS2 Design and Technology SUGGESTED ACTIVITIES – Sandwich / pasta sauce recipe / fruit smoothie. - Understand and know where and how a variety of ingredients are grown in the context of where and how herbs or fruit and vegetables are grown. - Understand and apply the principles of a healthy and varied diet in the context of making a balanced meal / sandwich. Pasta with herbs or pesto – sandwich with varied fillings. (Eatwell plate) - Draw, taste and plant strawberries / tomatoes. Understand seasonality and know where and how a variety of ingredients are grown in the context of where and how strawberries or tomatoes are grown or wheat for breads. - Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques in the context of making a strawberry / fruit smoothie / tomato sauce for pasta / sandwich.	UKS2 Design and Technology SUGGESTED ACTIVITIES – Create a seasonal meal (mainly plant based.) - Understand seasonality in the context of when fruit and vegetables are in season in Britain and how this may affect the food availability. Know where and how a variety of ingredients are reared, caught and processed in the context of the United Kingdom. Know, explain and give examples of food that is grown (such as pears, and potatoes), reared (such as poultry and cattle) and caught (such as fish) in the UK. - Taste and evaluate seasonal food. - Understand and apply the principles of a healthy and varied diet in the context of the importance of protein in the diet. Select from a wider range of ingredients. Plan plant-based recipes according to seasonality. - Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques in the context of preparing and cooking a healthy seasonal meal. Demonstrate how to prepare and cook safely and hygienically including, where appropriate, the use of a heat source; demonstrate how to use a range of cooking techniques, such as griddling, grilling, frying and boiling.

4. Hold a pencil effectively in preparation for fluent writing – using tripod grip in almost all cases. 5. Use a range of small tools, including scissors, paintbrushes & cutlery. Personal, Social and Emotional Development: Managing Self 6. Manage own basic hygiene & personal needs, incl dressing, going to the toilet & understanding the importance of healthy food choices.	- explain where in the world different foods originate from; - understand that all food comes from plants or animals; - understand that food has to be farmed, grown elsewhere (e.g. home) or caught; - name and sort foods into the five groups in the Eatwell Guide; understand that everyone should eat at least five portions of fruit and vegetables every day and start to explain why; - use what they know about the Eatwell Guide to design and prepare dishes.	Possible Units - QCA – Sandwich Snacks or Twinkl Editable Garden.	- Adapt and refine recipes by adding or substituting one or more ingredients to change the appearance, taste, texture and aroma; alter methods, cooking times and/or temperatures; measure accurately and calculate ratios of ingredients to scale up or down from a recipe; independently follow a recipe. Possible Unit - PlanIt Super Seasonal Cooking
Brilliant Buildings/Regal Rulers			
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Alive!/Amazing Animals

Physical Development:

Fine Motor Skills

4. Hold a pencil effectively in preparation for fluent writing – using the tripod grip in almost all cases.
5. Use a range of small tools, including scissors, paintbrushes and cutlery.

Personal, Social and Emotional Development

Managing Self

6. Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices.

KS1 Design and Technology

Cooking and Nutrition/Mechanisms

- Cooking & nutrition - Use the basic principles of a healthy and varied diet to prepare dishes
- Understand where food comes from.
 - With support, follow a simple plan or recipe;
 - Begin to select from a range of hand tools & equipment, such as scissors, graters, zesters, safe knives, juicer;
 - Learn to use hand tools & kitchen equipment safely & appropriately & learn to follow hygiene procedures;
 - Use a range of materials & components, including textiles & food ingredients;
 - Assemble, join & combine materials, components or ingredients;
 - Cut, peel & grate ingredients, including measuring & weighing ingredients using measuring cups;
 - Explain where in the world different foods originate from;
 - Understand that all food comes from plants or animals;
 - Understand that food has to be farmed, grown elsewhere (e.g. home) or caught;
 - Name and sort foods into the five groups in the Eatwell Guide; understand that everyone should eat at least five portions of fruit & veg every day & start to explain why; use what they know about the Eatwell Guide to design and prepare dishes.

Technical knowledge

- build structures, exploring how they can be made stronger, stiffer & more stable
- explore and use mechanisms [eg levers, sliders, wheels & axles], in their products

LKS2 Design and Technology

Cooking and Nutrition

- Understand how key events and individuals in design and technology have helped shape the world in the context of the history behind the Warburtons or Dominoes.
- Investigate and analyse a range of existing products in the context of different breads/ pizzas.
- Design a new type of bread / pizza.
- Prepare and cook a variety of predominantly savoury dishes safely and hygienically using a range of cooking techniques in the context of making a new bread product. Use a range of techniques such as mashing, whisking, crushing, grating, cutting, kneading and baking; measure and weigh ingredients to the nearest gram and milliliter.

Suggested Planit Unit – The Great Bread Bake Off.

UKS2 Design and Technology

Cooking and Nutrition

- Explore the taste of examples of food that are grown reared and caught in the UK, Europe and the wider world.
 - Understand and apply the principles of a healthy and varied diet in the context of understanding how diets are varied around the world but still consist of the same food groups.
 - Experiment with cooking rice. Demonstrate how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source, boiling and following a recipe.
 - Demonstrate a range of food skills and techniques in the making of Mexican food, Chinese food and German food.
- Suggested units - Planit Unit – Global Food.

Continents/Holidays			
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