West Meadows Primary School
YEAR 5: Design & Technology

AUTUMN	SPRING	SUMMER	Famous Designer*

Design

- 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
- Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design
- Learn about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.
- Use a wealth of research (e.g. books, magazines, interviews, questionnaires, investigations) to inform design criteria.
- Show consideration to culture and society when designing.
- Draw up a clear and detailed specification to inform the design (including maths and science where appropriate).
- Produce a range of initial design ideas and say what the good points and drawbacks are about each before selecting a final design.
- Create cross sectional, exploded diagrams and pattern pieces.
- Use CAD (Computer Aided Design).
- Produce a detailed step-by-step plan for the making process.
- Create a prototype and use to refine initial plan if necessary
- Apply a range of finishing techniques to improve the aesthetic and functional qualities of the product.
- Select appropriate materials, tools and techniques.
- Understand how much products cost to make and the impact of the products (include environmental).

Make

- Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
- Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities
- Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.
- Select the most appropriate materials, tools and techniques to use for a given task
- Use a simple pattern to create a life-sized item of clothing.
- Cut and join precisely to ensure a good-quality finish to the product.
- Use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT.
- Use a glue gun with close supervision.
- Assemble components to make working models.
- Pin, sew and stitch materials together to create a product.
- Demonstrate when make modifications as they go along.
- Join and combine materials and components accurately in temporary and permanent ways.
- Use a craft knife, cutting mat and safety ruler with close supervision (one to one).

Evaluating

- Investigate and analyse a range of existing products, identifying strengths and weaknesses.
- Evaluate their ideas and products against their own design criteria (specification) and consider the views of others to improve their work.

	• Understand how key events and individuals in design and technology have helped shape the world **Knowledge and understanding** • Apply their understanding of how to strengthen, stiffen and reinforce more complex structures • Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] •			
Objectives	MECHANISM- Using a CAM • Children to design and make their own moving CAM toy. • Create and use simple cams. • Understand how cams create movement. • Consider the aesthetic qualities and functionality of my work when making.	• TEXTILES - • Pencil case • Children to design and sew their own pencil case using a piece of material and a zip. • Understand how to join fabrics using different techniques e.g. running stitch, glue, over stitch, stapling. • Consider the aesthetic qualities and functionality of my work when making.	• FOOD- • Pizza • Children to refine a recipe and make their own pizza including the dough. • Understand that seasons may affect the food available. • Understand how food is processed into ingredients that can be eaten or used in cooking. • Know how to prepare and cook a variety of predominantly savoury dishes safely and hygienically, including experience of using a heat source. • Demonstrate increasing confidence in how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. • Evaluate a meal and consider if they contribute towards a balanced diet. • Understand the need for correct storage.	Coco Channel (1883–1971) Fashion designer Richard Rogers (1933-) Antonio Carluccio (1937-2017) Steve Jobs (1955-2011)
Vocabulary	Reinforces, linkages, complex, user, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, label, drawing, function, planning, design criteria, annotated sketch, appealing	Reinforces, linkages, complex, user, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, label, drawing, function, planning, design criteria, annotated sketch, appealing	accompaniments, calories, energy, savoury, garnish, diet, variety, carbohydrate, protein, dairy, fat, vitamin, mineral, crumbly, crunchy, greasy, creamy, gooey, moist, mushy, slicing, mixing, spreading, kneading, baking, raw, starchy, stodgy, cubing, creaming, melting, boiling, simmering, seasonality, sensory characteristics, zest.	

			Source, grown, reared, caught, processed, organic, vegetarian, vegan, pescatarian, sustainability, allergies, intolerance, free range.	