

Subject: Design Technology Year 5

Design

- carry out research, using surveys, interviews, questionnaires and web-based resources
- identify the needs, wants, preferences and values of particular individuals and groups
- generate innovative ideas, drawing on research

Making

- select tools and equipment suitable for the task
- explain their choice of tools and equipment in relation to the skills and techniques they will be using
- select materials and components suitable for the task
- explain their choice of materials and components according to functional properties and aesthetic qualities
- measure, mark out, cut and shape materials and components
- assemble, join and combine materials and components
- apply a range of finishing techniques, including those from art and design
- use techniques that involve a number of steps
- demonstrate resourcefulness when tackling practical problems

Evaluating

- critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make
- about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products

Food and Nutrition

- that seasons may affect the food available
- how food is processed into ingredients that can be eaten or used in cooking

Term:	Topic:	Knowledge	Skills:	Key Questions
Autumn	Structures Frame structures	Understand how to strengthen, stiffen and reinforce 3-D frameworks. Know and use technical vocabulary relevant to the project.	Designing Making Evaluating	What different types of structures are used for bridges? What makes a structure sturdy?
	Key Vocabulary	frame structure, stiffen, strengthen, reinforce, triangulation, stability, shape, join, temporary, permanent		
		Cultural Capital: Exploring local bridges within the North East		
Spring	Cooking and nutrition – Where food comes from	Understand about seasonality in relation to food products and the source of different food products. Know and use relevant technical and sensory vocabulary. Know how to use utensils and equipment including heat sources to prepare and cook food	Designing Making Evaluating	How does our food differ depending on the season? Where does our food come from? Do you know what different utensils are used for?

	Key Vocabulary	ingredients, yeast, dough, bran, flour, wholemeal, unleavened, baking soda, spice, herbs fat, sugar, carbohydrate, protein, vitamins, nutrients, nutrition, healthy, varied, gluten, dairy, allergy, intolerance, savoury, source, seasonality utensils, combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat, roll out, shape, sprinkle, crumble		
		Cultural Capital: To visit a local supermarket. To cook with family. To grow some fruit and vegetables		
Summer	Mechanical Systems Pulleys or gears	Understand that mechanical and electrical systems have an input, process and an output. Understand how gears and pulleys can be used to speed up, slow down or change the direction of movement. Know and use technical vocabulary relevant to the project.	Designing Making Evaluating	How have mechanisms changed over time? How do different mechanisms effect the movement of an object?
	Key Vocabulary	pulley, drive belt, gear, rotation, spindle, driver, follower, ratio, transmit, axle, motor, circuit, switch, circuit diagram, annotated drawings, exploded diagrams, mechanical system, electrical system, input, process, output		
		Cultural Capital: Exploring how mechanisms have changed over time eg. The victorian era		