

	Objectives	Skills. National Curriculum.	Vocabulary and Curriculum Links
Autumn Cakes and packaging.	To study nutritional value within packaging and what it means on labels. To design and make own packaging to sell at Christmas Bazaar.	Designing – Understanding contexts, users and purposes • D1 work confidently within a range of contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment • D2 describe the purpose of their products • D3 indicate the design features of their products that will appeal to intended users • D4 explain how particular parts of their products work • D5 carry out research, using surveys, interviews, questionnaires and web-based resources • D6 identify the needs, wants, preferences and values of particular individuals and groups • D7 develop a simple design specification to guide their thinking Designing - Generating, developing, modelling and communicating ideas • D8 share and clarify ideas through discussion • D9 model their ideas using prototypes and pattern pieces • D10 use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas • D11 use computer-aided design to develop and communicate their ideas • D12 generate realistic ideas, focusing on the needs of the user • D13 make design decisions that take account of the availability of resources Evaluating – Own ideas and products • E1 identify the strengths and areas for development in their ideas and products • E2 consider the views of others, including intended users, to improve their work • E3 critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make • E4 evaluate their ideas and products against their original design specification Evaluating – Existing products Pupils will be taught to investigate and analyse: • E5 how well products have been designed and made • E6 why materials have been chosen • E7 what methods of construction have been used	Autumn: Food preparation, food hygiene, calories, nutritional value, saturated fat, seasonal food, produce, compare, comparison, disadvantage, advantage, nutritional value, taste, texture, evaluation, feedback, convenience food, processed, unprocessed, bake, health and safety, balanced, carbohydrate, dairy, diet, protein and organic. Spring: Equipment, investigate, problem-solve, technique, test, version, compare,
Spring Shackleton	To understand the key events & how individuals have helped shape The World.		

Summer To develop skills in using Control Technology	To study boat design- The Endurance-to focus on how all joints and fittings were 'cross-braced' for max. strength. To construct a ship frame, using cross bracing. To practise 2code skills using Purple Mash 'Gorilla'. To write computer programming (coding) to create programs and use appropriate terms. To follow through plans to create the program. To debug when things do not run as expected.	• E8 how well products work to achieve their purposes • E9 how well products meet user needs and wants • E10 how much products cost to make • E11 how innovative products are • E12 how sustainable the materials in products are • E13 what impact products have beyond their intended purpose Evaluating – Key events and individuals • E14 about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products Making - Planning • M1 select tools and equipment suitable for the task • M2 explain their choice of tools and equipment in relation to the skills and techniques they will be using • M3 select materials and components suitable for the task • M4 explain their choice of materials and components according to functional properties and aesthetic qualities • M5 produce appropriate lists of tools, equipment and materials that they need • M6 formulate step-by-step plans as a guide to making Making – Practical skills and techniques • M7 follow procedures for safety and hygiene • M8 use a wider range of materials and components than KS1, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components • M9 accurately measure, mark out, cut and shape materials and components • M10 accurately assemble, join and combine materials and components • M11 accurately apply a range of finishing techniques, including those from art and design • M12 use techniques that involve a number of steps • M13 demonstrate resourcefulness when tackling practical problems Technical knowledge – Making products work • T1 how to use learning from science and maths to help design and make products that work	material, support, analysis, evaluation, improve, feedback, modelling, prototype, discuss, sustainable, functional, stability, stiffness, framework, structure, support. Summer: Action, Algorithm Command Events Input, Objects, Output, De bug, Search engine, online safety, coding, programme, sequences and network.
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