

**KS2 Cycle A Design and Technology Medium Term Plan**

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|  | **Autumn** | **Spring** | **Summer** |
| **Curriculum Objective** | **Cooking and Nutrition:**  POAP – Healthy and Varied Diet  Design, make and evaluate - sandwich | **Structures:**  POAP – Shell Structures  Design, make and evaluate - packaging | **Mechanical Systems:**  POAP – Levers and Linkages  Design, make and evaluate – pop up card |
| **Vocabulary to support Substantive and Disciplinary Knowledge** | knife, grater, cutting, spreading, grating, texture, taste, appearance, smell, preference, greasy, moist, cook, fresh, savoury, hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested, healthy/varied diet  planning, design criteria, purpose, preference, selecting, user, annotated sketch, evaluations | shell structure, three-dimensional  (3-D) shape, net, cube, cuboid, prism, vertex, edge, face, length, width, breadth, capacity, marking out, scoring, shaping, tabs, adhesives, joining, assemble, accuracy, material, stiff, strong, corrugating, ribbing, font, lettering, text, graphics, prototype  decision, evaluating, design brief, design criteria, innovative | mechanism, lever, linkage, pivot, slot, bridge, guide, system, input, process, output, linear, rotary, oscillating, reciprocating  user, purpose, function,  prototype, design criteria, innovative, appealing, design brief |
| **I will know….** | Design   * I can carry out sensory evaluations of a variety of ingredients and products and record the evaluations using e.g. tables and simple graphs. * I can generate and clarify ideas through discussion with peers and adults to develop design criteria including appearance, taste, texture and aroma for an appealing product for a particular user and purpose. * I can use annotated sketches and appropriate information and communication technology, such as web-based recipes, to develop and communicate ideas. * I can plan the main stages of a recipe, listing ingredients, utensils and equipment. * I can select from a range of ingredients (bread, pitta, wraps) to make appropriate food products, thinking about sensory characteristics.   Make   * I can select and use appropriate utensils and equipment to prepare and combine ingredients. * I know how to use appropriate equipment and utensils to prepare and combine food. * I know about a range of fresh and processed ingredients appropriate for their product, and whether they are grown, reared or caught. * I know and use relevant technical and sensory vocabulary appropriately.   Evaluate   * I can evaluate my ongoing work and the final product with reference to the design criteria and the views of others. | Design   * I can generate realistic ideas and design criteria collaboratively through discussion, focusing on the needs of the user and purpose of the product. * I can develop ideas through the analysis of existing products and use annotated sketches and prototypes to model and communicate ideas. * I can order the main stages of making. * I can explain my choice of materials according to functional properties and aesthetic qualities. * I can investigate and evaluate a range of existing shell structures including the materials, components and techniques that have been used.   Make   * I can select and use appropriate tools to measure, mark out, cut, score, shape and assemble with some accuracy. * I can use finishing techniques suitable for the product I am creating. * I can develop and use knowledge of how to construct strong, stiff shell structures. * I can develop and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes. * I know and use technical vocabulary relevant to the project.   Evaluate   * I can test and evaluate my own products against design criteria and the intended user and purpose. | Design   * I can generate realistic ideas and my own design criteria through discussion, focusing on the needs of the user. * I can use annotated sketches and prototypes to develop, model and communicate ideas. * I can order the main stages of making. * I can select from and use appropriate tools with some accuracy to cut, shape and join paper and card. * I can select from and use finishing techniques suitable for the product I am creating. * I can investigate and analyse books and, where available, other products with lever and linkage mechanisms. * I can evaluate my own products and ideas against criteria and user needs, as I design and make. * I can distinguish between fixed and loose pivots.   Make   * I can evaluate my own products and ideas against criteria and user needs, as I design and make. * I understand and use lever and linkage mechanisms. * I know and use technical vocabulary relevant to the project.   Evaluate   * I can evaluate my own products and ideas against criteria and user needs, as I design and make. |