



## Bearpark Design & Technology Curriculum for Year 3 and 4 (Cycle B)

### What are the aims and intentions of this DT curriculum?

Key Aims:

- develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users
- critique, evaluate and test their ideas and products and the work of others
- understand and apply the principles of nutrition and learn how to cook.

### Skills

Generating ideas - designing	Making	Evaluating	Key Vocabulary
<p>Generate and clarify ideas through discussion with peers to develop design criteria to inform the design of products that are fit for purpose, aimed at particular individuals or groups.</p> <p>Use annotated sketches and appropriate information and communication technology, such as web-based recipes, to develop and communicate ideas.</p> <p>Generate, develop, model and communicate realistic ideas through discussion and, as appropriate, annotated sketches, cross-sectional and exploded diagrams.</p>	<p>Order the main stages of making.</p> <p>Select and use appropriate tools to measure, mark out, cut, score, shape and combine with some accuracy related to their products.</p> <p>Explain their choice of materials according to functional properties and aesthetic qualities.</p> <p>Select from and use materials and components, including ingredients, construction and electrical components according to their function and properties.</p>	<p>Investigate and evaluate a range of products including the ingredients, materials, components and techniques that are used.</p> <p>Test and evaluate their own products against design criteria and the intended user and purpose.</p> <p>Evaluate their ideas and products against their own design criteria and identify the strengths and areas for improvement in their work.</p>	<p>evaluating, design brief design criteria, innovative, prototype, user, purpose, function, prototype, design criteria, innovative, appealing, design brief, planning, annotated sketch, sensory evaluations.</p>



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Term	Topic	Knowledge	Assessment
Autumn	Mechanisms	To understand and use lever and linkage mechanisms.	
	Levers and linkages	To distinguish between fixed and loose pivots.  To create a moving product.  Key Vocabulary: mechanism, lever, linkage, pivot, slot, bridge, guide system, input, process, output linear, rotary, oscillating, reciprocating	
Spring	Food	To investigate a range of food products and explore the principles of a varied and healthy diet.	
	Health and varied diet	To gather information about existing products available relating to their final product and learn how a variety of ingredients used in products are grown and harvested, reared, caught and processed.  To select and use a range of utensils and use a range of techniques as appropriate to prepare ingredients hygienically.  <b>Key Vocabulary:</b> name of products, names of equipment, utensils, techniques and ingredients texture, taste, sweet, sour, hot, spicy, appearance, smell, preference, greasy, moist, cook, fresh, savoury, hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested healthy/varied diet	
Summer	Workshop	Develop and use knowledge of how to construct strong, stiff shell structures.	
	Shell Structures including CAD	Develop and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes.  Know and use technical vocabulary relevant to the project.  <b>Key Vocabulary:</b> 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, reduce, reuse, recycle, corrugating, ribbing, laminating, font, lettering, text, graphics, decision.	