



Year 4 Design and Technology Knowledge, Skills and Vocabulary Progression

<u>Mechanical Systems - Levers and Linkages (Autumn 2)</u> <u>Knowledge</u>	<u>Electrical Systems - Simple Circuits and Switches</u> <u>(Spring 2) Knowledge</u>	<u>Food - Healthy and Varied diet (Summer 2)</u> <u>Knowledge</u>
<p>I understand and can use lever and linkage mechanisms. I can distinguish between fixed and loose pivots. I know and can use technical vocabulary relevant to the project.</p>	<p>I understand and can use electrical systems in my products, such as series circuits incorporating switches, bulbs and buzzers. I know and can use technical vocabulary relevant to the project.</p>	<p>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.</p>
<u>Mechanical Systems - Levers and Linkages (Autumn 2)</u> <u>Skills</u>	<u>Electrical Systems - Simple Circuits and Switches</u> <u>(Spring 2) Skills</u>	<u>Food - Healthy and Varied diet (Summer 2)</u> <u>Skills</u>
<p>Designing 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.</p> <p>Making 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 they are creating.</p> <p>Evaluating 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.</p>	<p>Designing I can gather information about needs and wants, and develop design criteria to inform the design of products that are fit for purpose, aimed at particular individuals or groups. I can generate, develop, model and communicate realistic ideas through discussion and, as appropriate, annotated sketches, cross-sectional and exploded diagrams.</p> <p>Making I can order the main stages of making. I can select from and use tools and equipment to cut, shape, join and finish with some accuracy. I can select from and use materials and components, including construction materials and electrical components according to their functional properties and aesthetic qualities.</p> <p>Evaluating I can investigate and analyse a range of existing battery-powered products. I can evaluate my ideas and products against my own design criteria and identify the strengths and areas for improvement in my work.</p>	<p>Designing 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.</p> <p>Making I can plan the main stages of a recipe, listing ingredients, utensils and equipment. I can select and use appropriate utensils and equipment to prepare and combine ingredients. I can select from a range of ingredients to make appropriate food products, thinking about sensory characteristics.</p> <p>Evaluating I can carry out sensory evaluations of a variety of ingredients and products. Record the evaluations using e.g. tables and simple graphs. I can evaluate the ongoing work and the final product with reference to the design criteria and the views of others.</p>
<u>Mechanical Systems - Levers and Linkages (Autumn 2)</u> <u>Vocabulary</u>	<u>Electrical Systems - Simple Circuits and Switches</u> <u>(Spring 2) Vocabulary</u>	<u>Food - Healthy and Varied diet (Summer 2)</u> <u>Vocabulary</u>

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

series circuit, fault, connection, toggle switch, push-to-make switch, push-to-break switch, battery, battery holder, bulb, bulb holder, wire, insulator, conductor, crocodile clip, control, program, system, input device, output device, user, purpose, function, prototype, design criteria, innovative, appealing, design brief

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, planning, design criteria, purpose, user, annotated sketch, sensory evaluations