



# The Willows Primary School

## Design Technology Skills Progression

	Year 1/2	Year 3/4	Year 5/6
DESIGN	<ul style="list-style-type: none"> <li>• Develop purposeful products based on criteria</li> <li>• Develop ideas through talking</li> <li>• Model and communicate ideas through drawing and making models</li> <li>• Begin to use technology to communicate ideas</li> </ul>	<ul style="list-style-type: none"> <li>• Use research to develop designs</li> <li>• Develop innovative, functional and appealing products that are design for a particular purpose</li> <li>• Generate, develop and communicate ideas through discussion with others</li> <li>• Use annotated sketches, prototypes, pattern pieces and technology to generate, develop and communicate ideas.</li> </ul>	<ul style="list-style-type: none"> <li>• Use research and develop criteria to inform design</li> <li>• Develop innovative, functional and appealing products that are aimed at particular individuals or groups</li> <li>• Generate, develop, and communicate ideas through discussion, actively seeking the views of others.</li> <li>• Use annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and technology to generate, develop, model and communicate ideas</li> </ul>
MAKE	<ul style="list-style-type: none"> <li>• Fold, tear and cut paper and card.</li> <li>• Mark out materials to be cut using a template.</li> <li>• Cut along lines, straight and curved</li> <li>• Curl paper Use a hole punch.</li> <li>• Insert paper fasteners for card linkages.</li> <li>• Create hinges.</li> <li>• Use simple pop ups.</li> <li>• Investigate temporary joining - fixed and moving</li> <li>• Join appropriately for different materials and situations e.g. glue, tape etc.</li> <li>• Explore and use a wide range of different materials according to their characteristics</li> <li>• Explore different ways of finishing their product</li> </ul>	<ul style="list-style-type: none"> <li>• Cut slots.</li> <li>• Cut internal shapes.</li> <li>• Use lolly sticks/card to make levers and linkages.</li> <li>• Use linkages and sliders to make movements larger or more varied.</li> <li>• Use and explore complex pop ups.</li> <li>• Create nets to support the design process. Explore and evaluate different ways of joining materials</li> <li>• Explore different finishes for their product using a range of materials</li> </ul>	<ul style="list-style-type: none"> <li>• Cut slots.</li> <li>• Cut accurately and safely to a marked line. Join and combine materials with temporary, fixed or moving joining's.</li> <li>• Use craft knife, cutting mat and safety ruler under supervision if appropriate.</li> <li>• Use a glue gun with close supervision.</li> <li>• Use nets and models to build prototypes Select from a wide range of materials based on functional and aesthetic properties</li> <li>• Explore and use different finishes taking into account the aesthetics of their product</li> </ul>

EVALUATE	<ul style="list-style-type: none"> <li>• Explore and evaluate a range of existing products</li> <li>• Discuss ideas and products with others</li> <li>• Evaluate ideas and products against design criteria</li> </ul>	<ul style="list-style-type: none"> <li>• Investigate and evaluate a range of existing products</li> <li>• Evaluate their ideas and products against design criteria and seek the views of others to improve their work</li> <li>• Understand how key events and individuals in design technology have helped to shape the world</li> </ul>	<ul style="list-style-type: none"> <li>• Investigate and analyse a range of existing products based on functional and aesthetic qualities</li> <li>• Evaluate their ideas and products against their own design criteria</li> <li>• Actively seek and consider the views of others to improve their work</li> <li>• Understand how key events and individuals in design technology have helped to shape the world.</li> </ul>
TECHNICAL	<ul style="list-style-type: none"> <li>• Make vehicles with construction kits which contain free running wheels.</li> <li>• Use a range of materials to create models with wheels and axles e.g. tubes, dowel, cotton reels.</li> <li>• Explore and use sliders and levers in their products</li> <li>• Build simple structures</li> <li>• Explore ways of making their structure stronger and more stable</li> </ul>	<ul style="list-style-type: none"> <li>• Incorporate a circuit with a bulb or buzzer into a model.</li> <li>• Use mechanical systems in their products (e.g. levers and linkages)</li> <li>• Create shell or frame structures - strengthen frames with diagonal struts.</li> <li>• Make structures more stable by giving them a wide base.</li> <li>• Prototype frame and shell structures.</li> </ul>	<ul style="list-style-type: none"> <li>• Incorporate motor &amp; a switch into a model.</li> <li>• Control and monitor a product using a computer.</li> <li>• Understand and use mechanical systems in their products (e.g gears, pulleys, cams)</li> <li>• Apply their understanding of how to reinforce and strengthen increasingly complex structures using a range of materials</li> </ul>
COOKING & NUTRITION	<ul style="list-style-type: none"> <li>• Develop a food vocabulary using taste, smell, texture and feel.</li> <li>• Group familiar food products e.g. fruit and vegetables.</li> <li>• Cut, peel, grate and chop a range of ingredients.</li> <li>• Work safely and hygienically.</li> <li>• Understand the need for a variety of foods in a diet.</li> <li>• Measure and weigh food items using non statutory measures e.g. spoons, cups</li> </ul>	<ul style="list-style-type: none"> <li>• Develop sensory vocabulary/knowledge using, smell, taste, texture and feel.</li> <li>• Analyse the taste, texture, smell and appearance of a range of foods.</li> <li>• Follow instructions.</li> <li>• Make healthy eating choices from an understanding of a balanced diet</li> <li>• Join and combine a range of ingredients.</li> <li>• Work safely and hygienically.</li> <li>• Measure and weigh ingredients appropriately.</li> </ul>	<ul style="list-style-type: none"> <li>• Analyse food products taking into account the properties of ingredients and sensory characteristics.</li> <li>• Select and prepare foods for a particular purpose</li> <li>• Taste a range of ingredients, food items to develop a sensory food vocabulary for use when designing.</li> <li>• Weigh and measure using scales</li> <li>• Cut and shape ingredients using appropriate tools and equipment e.g. grating</li> <li>• Join and combine food ingredients appropriately e.g. beating, rubbing in.</li> <li>• Decorate appropriately.</li> <li>• Work safely and hygienically.</li> <li>• Show awareness of a healthy diet from an understanding of a balanced diet</li> </ul>

**Understanding:**

- Explore the outdoor environment.
- Name and identify things that we might see growing in a garden.
- Gain an understanding of what plants and vegetables need to grow effectively – explore what will happen if elements are missing.

**Planting skills:**

- Plant seeds and bulbs in pots and planters and observe the changes over time.
- Write labels for plants and vegetables in order to identify them.
- Begin to understand that we can separate our fruit and vegetable waste from normal everyday waste.

**Tool Skills:**

- Select and use tools safely – with adult guidance when appropriate.
- Use a trowel, spade or dibber to dig and or to make planting holes.
- Use a hand fork to effectively remove weeds etc.
- Use a rake to level soil and clear leaves etc.

**Care skills:**

- Use a watering can to water plants when it's necessary to do so.

**Understanding:**

- Explore the outdoor environment.
- Name and identify familiar plants and vegetables once grown.
- Know what plants need to grow, name parts of a plant.

**Planting skills:**

- Plant seeds and bulbs into the soil and firm in.
- Sow seeds into a planter with guidance.
- Take care of what we are growing.
- Begin to understand that we can recycle our plant and veg waste.

**Tool Skills:**

- Select tools for a specific purpose and use them safely.

**Understanding:**

- Begin to understand that plants and vegetables need diverse climates and conditions to grow in – e.g we grow tomatoes in a greenhouse
- Develop an understanding of the lifecycle of a plant.

**Planting skills:**

- Know that we plant things for a purpose and to try the products that we have grown.
- Care and protect what we are growing using various techniques e.g watering, covering
- To know and understand about decay e.g composting.
- Harvest what we have grown e.g digging root crops such as potatoes and carrots without damaging them and pick peas and beans.

**Tool Skills:**

- Use various tools safely and without support to dig, plant and remove weeds etc.
- Use secateurs to prune – with supervision where necessary