

WOODHALL SKILLS LADDER: DESIGN TECHNOLOGY

EYFS	
YEAR 1	
Investigation	Explore the sensory qualities of materials. Explore ways to construct models.
Observation	Identify a target group for what they intend to design and make. Recognise how structures can be made stronger, stiffer and more stable.
Application	Generate and talk about their own ideas. Follow safe procedures. Take account of simple properties when deciding how to cut, shape, combine and join them. Use tools and materials with help.
YEAR 2	
Investigation	Explore a range of existing products. Discover where foods come from in choosing, preparing and tasting different dishes.
Observation	Identify a purpose for what they intend to design and make. Identify simple design criteria then plan what to do next, using a variety of different methods. Observe and take account of properties of materials when deciding how to cut, shape, combine and join them. Identify what they could have done differently or how they could improve their work in the future.
Application	Evaluate a range of existing products. Communicate their ideas using a variety of methods e.g. drawing, making mock-ups, ICT. Measure, mark, cut out and shape a range of materials. Use mechanisms in products e.g. wheels, sliders. Use simple finishing techniques. Talk about their ideas, saying what they like and dislike, and evaluate against their design criteria.
YEAR 3	
Investigation	Generate, develop and explain ideas for products to meet a range of needs. Explore ways of meeting design challenges with a food focus using a range of cooking techniques.
Observation	Identify a purpose and establish criteria for a successful product. Evaluate work, adapting and improving where appropriate.
Application	Communicate design ideas in different ways e.g. discussions, annotated sketches, cross-sectional diagrams and prototypes. Selecting appropriate tools and techniques, name and describe them Measure, mark, cut out and shape a range of materials and assemble, join and combine components and materials with some accuracy.
YEAR 4	
Investigation	Use research to inform their design. Explore ways of meeting design challenges with a textile focus.
Observation	Evaluate work, adapting and improving through the views of others to improve their work.
Application	Communicate design ideas in different ways e.g. discussion, annotated sketches, cross-sectional diagrams and prototypes. Select from and use a range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.

	<p>Join and combine materials and components accurately in temporary and permanent ways.</p> <p>Measure, mark, cut out and shape a range of materials and assemble, join and combine components and materials with increasing accuracy.</p>
YEAR 5	
Investigation	<p>Investigate ways of meeting design challenges with a constructions focus.</p> <p>Investigate how the work of individuals in design technology has helped to shape the world.</p>
Observation	<p>Identify users' views and take these into account.</p> <p>Analyse a range of existing products.</p> <p>Estimate and measure using appropriate instruments and units.</p>
Application	<p>Plan what they have to do, including how to use materials, equipment and processes.</p> <p>Communicate design ideas in different ways e.g. discussion. Annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and CAD.</p> <p>Apply knowledge of mechanical and electrical control when designing and making functional products.</p> <p>Refine sequences of instructions to control events or make things happen.</p>
YEAR 6	
Investigation	<p>Explore alternative ways of making their product, if first attempts fail.</p>
Observation	<p>Check work as it develops and modify as necessary.</p> <p>Evaluate their products, identifying strengths and areas for development, and make appropriate changes.</p>
Application	<p>Draw on and use various sources of information, including ICT sources.</p> <p>Generate and clarify ideas for products, considering intended purpose.</p> <p>Plan what they have to do, suggesting a sequence of actions and alternatives if needed.</p> <p>Choose how to communicate design ideas as they develop, considering use and purpose.</p> <p>Select from a wide range of tools and equipment to perform practical tasks accurately.</p>