

Design and Technology Skills Ladder

	Year One	Year Two
Investigation	Dt1 Explore the sensory quality of materials Dt2 Explore ways to construct models	Dt9 Explore a range of existing products Dt10 Discover where foods come from in choosing, preparing and tasting different dishes
Observation	Dt3 Identify a target group for what they intend to design and make Dt4 Recognise how structures can be made stronger, stiffer and more stable	Dt11 Identify a purpose for what they intend to design and make Dt12 Identify simple design criteria then plan what to do next, using a variety of methods Dt13 Observe and take account of properties of materials when deciding how to cut, shape, combine and join them Dt14 Identify what they could have done differently or how they could improve their work in the future
Application	Dt5 Generate and talk about their own ideas Dt6 Follow safe procedures Dt7 Take account of simple properties of material when deciding how to cut, shape, combine and join them Dt8 Use tools and materials with help	Dt15 Evaluate a range of existing products Dt16 Communicate their ideas using a variety of methods eg drawing, making mock-ups, ICT Dt17 Measure, mark, cut out and shape a range of materials Dt18 Use mechanisms in their products eg wheels, sliders Dt19 Use simple finishing techniques Dt20 Talk about their ideas, saying what they like and dislike and evaluate against their design criteria

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	Year Three	Year Four
Investigation	Dt21 Generate, develop and explain ideas for products to meet a range of needs Dt22 Explore ways of meeting design challenges with a food focus using a range of cooking techniques	Dt28 Use research to inform their design Dt29 Explore ways of meeting design challenges with a textile focus
Observation	Dt23 Identify a purpose and establish criteria for a successful product Dt24 Evaluate work, adapting and improving where appropriate	Dt30 Evaluate work, adapting and improving through the views of others to improve their work
Application	Dt25 Communicate design ideas in different ways eg discussion, annotated sketches, cross-sectional diagrams and prototypes Dt26 Selecting appropriate tools and techniques, name and describe them Dt27 Measure, mark, cut out and shape a range of material and assemble, join and combine components and material s with some accuracy	Dt31 Communicate design ideas in different ways eg discussion, annotated sketches, cross-sectional diagrams and prototypes Dt32 Select from and use a range of material and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities Dt33 Join and combine material and components accurately in temporary and permanent ways Dt34 Measure, mark, cut out and shape a range of materials and assemble, join and combine components and material with increasing accuracy

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	Year Five	Year Six
Investigation	Dt35 Investigate ways of meeting design challenges with a construction focus Dt36 Investigate how the work of individuals in design technology has helped to shape the world	Dt44 explore alternative ways of making their product. If the first attempts fail
Observation	Dt37 Identify users' views and take these into account Dt38 Analyse a range of existing products Dt39 Estimate and measure using appropriate instruments and units	Dt45 Check work as it develops and modify if necessary Dt46 Evaluate their products, identifying strengths and areas for development, and make appropriate changes
Application	Dt40 Plan what they have to do, including how to use materials, equipment and processes Dt41 Communicate design ideas in different ways eg discussion, annotate sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design Dt42 Apply knowledge of mechanical and electrical control when designing and making functional products Dt43 Refine sequences of instructions to control events or make things happen	Dt47 Draw on and use various sources of information, including ICT sources Dt48 Generate and clarify ideas for products, considering intended purpose Dt49 Plan what they have to do, suggesting a sequence of actions and alternatives if needed Dt50 Choose how to communicate design ideas as they develop, considering use and purpose Dt51 Select from a wide range of tools and equipment to perform practical tasks accurately