

DT Progression of Knowledge, Skills and Vocabulary

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Generating Ideas	<p>Select appropriate resources</p> <p>Use gestures, talking and arrangements of materials and components to show design</p> <p>Use contexts set by the teacher and myself</p>	Think of own ideas for design. Use pictures and words to plan. Design a product for myself, following design criteria. Work in a range of contexts (imaginary, home, school, wider community, story based).	Think of own ideas and plan what to do next. Describe designs using pictures, diagrams, models, mock-ups, words and ICT. Design a product for myself and others, following design criteria. Work confidently in a range of contexts (imaginary, home, school, wider community, story-based etc).	Create a design that meets a range of requirements. Consider the equipment and tools needed when planning. Describe a design using an accurately labelled diagram, and in words.	Generate more than one idea for how to create a product. Gather information to help design a successful product (i.e. by asking others' views). Produce a detailed plan with labelled diagrams, a written explanation and step-by-step guide. Suggest improvements to develop and refine a planned idea.	Generate a range of ideas after collating relevant information (i.e. users' views). Produce a detailed plan, with step-by-step instructions, cross-sectional diagrams and prototypes. Suggest alternative plans, considering the positive aspects and drawbacks of each.	Use a range of information to inform a design (i.e. market research using surveys, interviews, questionnaires or web based resources). Produce a detailed plan, with cross-sectional diagrams and computer-generated designs). Work within constraints, refining and justifying plans as necessary.
Vocabulary	Idea, plan, product, user, model,	Idea, plan, product, user, model, mock up,		user, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, label, drawing, function, planning, design criteria, annotated sketch, appealing		function, innovative, design specification, user, purpose, design brief, annotated sketch, user, innovation, research, functional, mock-up, prototype	
Making	<p>Construct with a purpose, using a variety of resources</p> <p>Use simple tools and techniques</p> <p>Build / construct with a wide range of objects</p> <p>Select tools & techniques to shape, assemble and join</p> <p>Replicate structures with materials / components</p> <p>Discuss how to make an activity safe and hygienic</p> <p>Record experiences by drawing, writing, voice recording</p> <p>Understand different media can be combined for a purpose</p>	Explain what is being made and why. Select appropriate tools and equipment for the purpose.	Explain what is being made and why the audience will like it. Choose appropriate tools and equipment, describing and explaining why they are being used.	Use a range of tools and equipment accurately. Measure, mark out, assemble and join materials and components with some accuracy	Use a range of tools and equipment with accuracy. Measure, mark out, join, assemble materials and components with accuracy.	Use a range of tools and equipment expertly. Consider the aesthetic qualities and functionality of my work when making.	Use a range of tools and equipment precisely. Consider the aesthetic qualities and functionality of my product as making it, refining details as necessary.
Vocabulary	join, build, shape, longer, shorter, heavier, design, idea	Problem, solution, audience, tools, equipment Mark, join, template		user, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, label, drawing, function, planning, design criteria, annotated, sketch, appealing		user, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, label, drawing, function, planning, design criteria, annotated, sketch, appealing	
Evaluation	Adapt work if necessary	Talk about own and pre-existing products, saying what is good or bad about them. Say whether their	Describe how their own and pre-existing products work, evaluating what went well and what could be done	Evaluate own and pre-existing products. Suggest what could be changed to improve a design,	Evaluate the appearance and usability of own and pre-existing products. Explain how the original design could be	Evaluate the appearance and function of a product (own and pre-existing) against the original	Evaluate the appearance and test the function of a product (own and pre-existing) against the original

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	<p>Dismantle, examine, talk about existing objects/structures</p> <p>Consider and manage some risks</p> <p>Practise some appropriate safety measures independently</p> <p>Talk about how things work</p> <p>Look at similarities and differences between existing objects / materials / tools</p> <p>Show an interest in technological toys</p> <p>Describe textures</p>	<p>product does what it is meant to (fits the design brief) and how it could be improved</p>	<p>differently. Suggest what went well and what would be done differently when evaluating their own product.</p>	<p>beginning to link this to the design brief.</p>	<p>improved, considering the appearance and usability and linking this to the design brief.</p>	<p>criteria, saying whether it is fit for purpose. Suggest improvements that could be made, considering materials and methods that have been used.</p>	<p>criteria, saying whether it is fit for purpose. Suggest improvements that could be made, considering materials, methods, sustainability of the product and how much a product costs to make.</p>
Vocabulary	Finish, Improve, change,			Finish, Improve, change, evaluate,		Finish, Improve, change, evaluate, modify, sustainability, cost	
Food and Nutrition	<p>Begin to understand some food preparation tools, techniques and processes</p> <p>Practise stirring, mixing, pouring, blending</p> <p>Discuss how to make an activity safe and hygienic</p> <p>Discuss use of senses</p> <p>Understand need for variety in food</p> <p>Begin to understand that eating well contributes to good health</p>	<p>Know how to peel, cut, grate, mix and mould foods (with supervision). Prepare simple dishes hygienically without a heat source.</p> <p>Know that food comes from plants or animals and is farmed or caught.</p> <p>Name and sort food into groups.</p> <p>Know that everyone should eat at least five portions of fruit and vegetables a day.</p>	<p>Know how to peel, cut, grate, mix, mould and begin to cook foods (using toasters and microwaves with supervision).</p> <p>Know that food is grown, reared and caught in the UK, Europe and the wider world.</p> <p>Know that a healthy diet is made from a variety and balance of different food and drink; that food and drink are needed to provide energy for the body.</p>	<p>Cut, mix, mould and use hobs to heat food, developing independence with appropriate supervision.</p> <p>Know that seasons may affect food availability and how food is processed into ingredients.</p> <p>Know that food and drink contain nutrients, water and fibre that are needed for health.</p>			
Vocabulary	<p>Begin to use fruit and vegetable names, names of equipment and utensils sensory vocabulary.</p>	<p>fruit and vegetable names, names of equipment and utensils sensory vocabulary e.g. soft, juicy, crunchy, sweet, sticky, smooth, sharp, crisp, sour, hard flesh, skin, seed, pip, core, slicing, peeling, cutting, squeezing, healthy diet, choosing, ingredients</p>	<p>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 die</p>		<p>ingredients, yeast, dough, bran, flour, wholemeal, unleavened, baking soda, spice, herbs fat, sugar, carbohydrate, protein, vitamins, nutrients, nutrition, healthy, varied, gluten, dairy, allergy, intolerance, savoury, source, seasonality utensils, combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat, roll out, shape, sprinkle, crumble</p>		

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Construction	<p>Choose the resources they need for their chosen activities.</p> <p>Handle equipment and tools effectively</p> <p>Use and explore a variety of materials.</p>	<p>Use sheet materials and construction tools with appropriate supervision; measuring, marking out, cutting, shaping, joining and finishing techniques with a range of tools and new and reclaimed materials.</p> <p>Know how a free standing structure can be made stronger, stiffer and more stable.</p> <p>Discuss the suitability of materials for their products according to their characteristics.</p> <p>build and explore a variety of freestanding structures using construction kits, such as wooden blocks, interconnecting plastic bricks and those that make frameworks</p> <p>Fold paper or card in different ways to make freestanding structures, using masking tape where necessary to make joins.</p>	<p>Use sheet materials and construction tools with appropriate supervision.</p> <p>Practise making nets out of card, joining flat faces with masking tape to create 3-D shapes. Experiment with assembling in nets in numerous ways.</p> <p>Scoring, cutting out and assemble pre-drawn nets.</p> <p>Use different ways of stiffening and strengthening their shell structures e.g. folding and shaping, corrugating, ribbing, laminating.</p> <p>Discuss and explore the graphics techniques and media that could be used to achieve the desired appearance of their products.</p> <p>Practise using computer-aided design (CAD) software to design the net, text and graphics for their products according to purposes.</p>	<p>Use sheet and construction materials appropriately.</p> <p>Compare the strength of square frameworks with triangular frameworks.</p> <p>Reinforce square frameworks using diagonals to help develop an understanding of using triangulation to add strength to a structure.</p> <p>Build 3-D frameworks such as cubes, cuboids and pyramids. Investigate how each frameworks could be reinforced and strengthened.</p> <p>Develop skills and techniques using junior hacksaws, G-clamps, bench hooks, square section wood, card triangles and hand drills to construct wooden frames, as appropriate.</p> <p>Develop skills and techniques for accurately joining framework materials together e.g. paper straws, square sectioned wood.</p>
Vocabulary	<p>Cut, fold, join, fix structure, wall, tower, weak, strong, base, top, below, edge, surface, thinner, thicker, corner, straight, curved, metal, wood, plastic circle, triangle, square, rectangle,</p>	<p>Cut, fold, join, fix structure, wall, tower, framework, weak, strong, base, top, underneath, side, edge, surface, thinner, thicker, corner, point, straight, curved, metal, wood, plastic circle, triangle, square, rectangle, cuboid, cube, cylinder</p>	<p>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,</p>	<p>frame structure, stiffen, strengthen, reinforce, triangulation, stability, shape, join, temporary, permanent</p>
Textiles	<p>Choose the resources they need for their chosen activities.</p> <p>Handle equipment and tools effectively</p> <p>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</p>	<p>Understand how simple 3-D textile products are made, using a template to create two identical shapes.</p> <p>Understand how to join fabrics using different techniques e.g. running stitch, glue, over stitch, stapling.</p> <p>Explore different finishing techniques e.g. using painting, fabric crayons, stitching, sequins, buttons and ribbons.</p> <p>Know and use technical vocabulary relevant to the project.</p>	<p>Cut, then join textiles using a running stitch, over sewing, back stitch or fastenings.</p> <p>Understand seam allowances, create simple patterns and appropriate decoration techniques (e.g. applique).</p> <p>Know how to strengthen, stiffen and reinforce existing fabrics.</p> <p>Understand how to securely join two pieces of fabric together.</p> <p>Know and use technical vocabulary relevant to the project.</p>	<p>Improving appearance and consistency of stitches</p> <p>Pin and tack fabrics, use patterns and seam allowances and join fabrics to make quality products.</p> <p>Develop skills of threading needles and joining textiles using a range of stitches.</p> <p>How to start and finish off a row of stitches.</p> <p>Develop skills of 2-D paper pattern making using grid or tracing paper to create a 3-D mock-up.</p> <p>Develop skills of computer-aided design (CAD) by using on-line pattern making software to generate pattern pieces.</p>



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Vocabulary	Material, fabric, pattern texture, join, sew,	joining and finishing techniques, tools, fabrics and components, template, pattern pieces, mark out, join, decorate, finish		fabric, names of fabrics, fastening, compartment, zip, button, structure, finishing technique, strength, weakness, stiffening, templates, stitch, seam, seam allowance		seam, seam allowance, wadding, reinforce, right side, wrong side, hem, template, pattern pieces, name of textiles and fastenings used, pins, needles, thread, pinking shears, fastenings,	
Mechanisms		Know about movement of simple mechanisms such as levers, sliders, wheels and axels.	Know about movement of simple mechanisms such as levers and linkages.	Know about movement of simple mechanisms such as levers and linkages.	Know how to create simple mechanisms such as levers and linkages with a pivot.	Understand how mechanical systems such as cams, pulleys or gears create movement.	
Vocabulary		slider, lever, pivot, slot, bridge/guide, card, masking tape, paper fastener, join, pull, push, up, down, straight, curve, forwards, backwards		vehicle, wheel, axle, axle holder, chassis, body, cab assembling, cutting, joining, shaping, finishing, fixed, free, moving, mechanism names of tools, equipment and materials used	mechanism, lever, linkage, pivot, slot, bridge, guide system, input, process, output linear, rotary, oscillating, reciprocating	pulley, drive belt, gear, rotation, spindle, driver, follower, ratio, transmit, axle, motor, circuit, switch, circuit diagram, annotated drawings, exploded diagrams, mechanical system, electrical system, input, process, output	