**DT Progression of Skills**

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|  | EY | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Design | * Represent my thoughts through designs.
* Select appropriate resources.
* Use language of designing and making e.g. join, build, shape, longer, shorter, heavier etc.
 | * Have my own ideas.
* Explain what I want to do., what the product is for, and how it will work.
* Use pictures and words to plan and begin to use models.
* Design a product for myself following design criteria.
* Research similar existing products.
 | * Using my own ideas, explain what I want to do and describe how I may do it.
* Explain the purpose of my product, how it will work and how it will be suitable for the user.
* Describe my design using pictures, words, models, diagrams and begin to use ICT.
* Design products following a design criterion.
* Use my knowledge of existing products to produce ideas.
 | * Begin to research others’ needs.
* Show my design meets a range of requirements.
* Describe the purpose of the product.
* Follow a given design criterion.
* Create a plan which shows order, equipment and tools.
* Describe my design using an accurately labelled sketch and words.
* Attempt to make a prototype.
* Begin to use computers to show design.
 | * Research others’ needs.
* Show my design meets a range of the requirements and is fit for purpose.
* Begin to create my own design criteria.
* Produce a plan and say how realistic it is.
* Explain how the product will work.
* Make a prototype.
* Become more confident using computer aided design.
 | * Use the internet and questionnaires for research and design ideas.
* Take a user’s view into account when designing.
* Begin to consider the needs/wants of individuals or groups when designing a product and ensure it is fit for purpose.
* Create my own design criteria.
* Produce cross-sectional planning and annotated sketches.
* Make design decisions considering time and resources.
* Refine ideas by making prototypes and patterned pieces.
* Use computer-aided designs.
 | * Draw on market research to inform design.
* Use research of a user’s view into account when designing.
* Identify features that will appeal to the intended user.
* Create my own design criteria and specification.
* Come up with innovative designs.
* Make design decisions considering resources and costs.
* Produce cross-sectional planning, exploded diagrams and annotated sketches.
* Make design decisions considering time and resources.
* Refine ideas by making prototypes and patterned pieces.
* Use computer-aided designs.
 |
| Make | * Make simple representations.
 | * Explain what I’m making and why
* Consider what I need to do next
* Select tools/equipment to cut shape, join, finish etc.
* Measure, mark out, cut and shape with support.
* Choose suitable materials and explain choices.
* Try to use finishing techniques to make the product look good.
* Work in a safe manner.
 | * Explain what I am making and why it fits the purpose.
* Make suggestions as to what I need to do next.
* Join materials/components together in different ways.
* Measure, mark out, cut and shape materials/components with support.
* Describe which tools I’m using and why.
* Choose suitable materials and explain choices depending on characteristics.
* Use finishing techniques to make the product look good.
 | * Select suitable tools/equipment, & begin to use them accurately.
* Select appropriate materials fit for purpose.
* Work through the plan in order.
* Begin to measure, mark out, cut and shape with some accuracy.
* Begin to assemble, join and combine with some accuracy.
* Begin to apply a range of finishing techniques with some accuracy.
 | * Select suitable tools/equipment, explain choices in relation to required techniques and begin to use them accurately.
* Work through the plan in order.
* Think if the product is going to be of good quality.
* Begin to measure, mark out, cut and shape with some accuracy.
* Begin to assemble, join and combine with some accuracy.
* Begin to apply a range of finishing techniques with some accuracy.
 | * Select tools and equipment with a good level of precision.
* Produce lists of tools and materials needed.
* Choose appropriate materials considering functionality.
* Create a step-by-step plan.
* Explain how my product would appeal to an audience.
* Mainly accurately mark out, cut and shape materials/ components.
* Mainly accurately assemble, join and combine.
* Mainly accurately apply a range of finishing techniques.
* Begin to be resourceful in solving practical problems.
 | * Select tools and equipment with a good level of precision.
* Produce lists of tools and materials needed.
* Choose appropriate materials considering functionality.
* Create a detailed step-by-step plan.
* Explain how my product would appeal to an audience.
* Mainly accurately mark out, cut and shape materials/ components.
* Mainly accurately assemble, join and combine.
* Mainly accurately apply a range of finishing techniques.

Begin to be resourceful in solving practical problems. |
| Evaluate | * Discuss what I like about what I have made.
 | * Talk about my work, linking it to what I was asked to do.
* Talk about existing products considering: use, materials, how they work, audience, where they might be used.
* Talk about existing products thinking about what is and isn’t good.
* Begin to talk about what could make my product better.
 | * Describe what went well, thinking about the design criteria.
* Talk about existing products considering: use, materials, how they work, audience, where they might be used, express personal opinion.
* Evaluate how good existing products are.
* Talk about what I would do differently if I were to do it again and why.
 | * Use the design criteria when evaluating.
* Begin to evaluate products considering: use, materials, how well they have been made, materials, whether they work, how they have been made, fit for purpose.
* Begin to understand by whom, when and where products where designed.
* Learn about some inventors/designers/engineers/chefs/ manufacturers of ground-breaking products.
 | * Use the design criteria when evaluating.
* Begin to evaluate products considering: use, materials, how well they have been made, materials, whether they work, how they have been made, fit for purpose.
* Begin to understand by whom, when and where products where designed.
* Learn about some inventors/designers/engineers/chefs/ manufacturers of ground-breaking products.
* Research whether products can be recycled of reused.
 | * Evaluate the finished product against the specification, considering purpose and appearance.
* Test and evaluate the final product.
* Evaluate products considering: materials, quality, materials, whether they work, the process, fit for purpose.
* Begin to evaluate how much products cost to make and how innovative they are.
* Research how sustainable the materials are.
* Talk about some key inventors/designers/engineers/chefs/ manufacturers of ground-breaking products.
 | * Evaluate the finished product against the specification, considering purpose and appearance.
* Test and evaluate the final product considering if it’s fit for purpose and explain possible improvements if different materials had been used.
* Do thorough evaluations on products considering: materials, quality, materials, whether they work, the process, fit for purpose.
* Evaluate how much products cost to make and how innovative they are.
* Research how sustainable the materials are.
* Talk about some key inventors/designers/engineers/chefs/ manufacturers of ground-breaking products.
* Consider the impact of the product beyond the intended user.
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| TK – Structures | * Interested in simple mechanisms on toys and know how to operate them.
* Experiment with stacking blocks.
* Use various construction materials.
* Join construction materials together.
 | * Build a free standing structure.
* Beginning to measure and join materials, with some support.
* Join materials in different ways.
* Suggest ways to make product stronger, stiffer and more stable.
* Describe differences in materials.
* Use joining, rolling or folding to make it stronger.
 |  | * Build a shell structure.
* Use appropriate materials.
* Work accurately to make cuts and holes.
* Join materials.
* Measure carefully to avoid mistakes.
* Make a strong, stiff structure.
 |  | * Reinforce and strengthen a 3D frame.
* Make more complex structures including a frame structure.
* Measure accurately enough to ensure precision.
* Make products that are strong and fit for purpose.
 |  |
| TK – Mechanism | * Experiment with blocks.
* Interested in toys with knobs and pulleys.
 | * Use levers or sliders.
 | * Use wheels and axles.
 | * Use levers and linkages to create movement.
* Use pneumatics to create movement.
 |  | * Use cams, pulleys and gears to create movement.
 |  |
| TK – Textiles | * Explore a range of fabrics and textures.
* Use scissors to cut fabrics.
 |  | * Measure, cut and join textiles to make a product, with some support
* Join textiles together to make a product.
* Carefully cut textiles to produce accurate pieces.
* Cut out shapes that have been created by drawing around a template onto the fabric.
* Begin to sew using a range of [basic stitches](https://www.twinkl.co.uk/resource/t-m-866-simple-sewing-stitches-display-posters) including a running stitch.
 |  | * Begin to devise a template.
* Understand that a simple fabric shape can be used to make a 3D textiles project.
* Join fabrics using a range of stitches with increasing independence.
* Sewing skills become more accurate.
* Learn to add further decoration by adding buttons, beads, sequins etc.
 |  | * Use my own template.
* Consider seam allowance.
* Use a range of joining techniques including using a blanket stitch.
* Confidently make 3D products.
* Pin and tack fabric pieces together.
* Make products with increasing accuracy and independence.
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| TK – Electrical Systems |  |  |  |  | * Use number of components in circuit including bulbs and buzzers.
* Program a computer to control a product.
 |  | * Use different types of circuits in product including a motor and a switch.
* Think of ways in which adding a circuit would improve product.
* Program a computer to monitor changes in environment and control product.
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| Food | * Wash and dry hands independently.
* Understand the need for a variety of foods.
* Explore different foods.
 | * Wash surfaces down.
* Decorate food.
* Explain source of foods.
* Know fruits & veg are healthy.
* Cut, peel and grate with support.
 | * Hygiene procedures
* Describe how food is farmed, home-grown, caught.
* Draw eat well plate and explain there are groups of food.
* Describe 5 a day.
* Cut, peel and grate with increasing confidence.
* Begin to measure using measuring cups and digital scales.
 | * Follow a recipe.
* Think about how to grow plants to use in cooking.
* Begin to understand where food is grown.
* Describe how healthy diet= includes food and drinks.
* Prepare and cook some dishes safely and hygienically.
* Begin to chop, slice, mix, grate etc.
 | * Understand ingredients can be fresh, pre-cooked or processed.
* Beginning to understand about food being grown, reared or caught in the UK or wider world.
* Explain importance of food and drink for active, healthy bodies.
* I can chop, slice, grate, knead
* Measure food to the nearest gram accurately.
 | * Follow hygiene guidelines.
* Present a product well - interesting, attractive, fit for purpose.
* Begin to understand seasonality of foods.
* Prepare & cook some savoury dishes safely and hygienically including, where appropriate, use of heat source.
* I can peel, chop, slicing etc.
* Begin to adapt a recipe by adding / substituting ingredients to change taste, look, texture etc.
 | * Adapt a recipe by adding / substituting ingredients.
* Explain seasonality of foods.
* Learn about food processing methods.
* Name some types of food that are grown, reared or caught in the UK or wider world.
* Describe some of the different substances in food and drink, and how they can affect health.
* Prepare and cook a variety of savoury dishes safely and hygienically including, where appropriate, the use of heat source.
* I can use a range of techniques.
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