

***Subject***

***Skills development for planning progression through the curriculum.***

***Knowledge should be taught at age related expectations within the content, taken from the National Curriculum programme of study.***

***Skills should be learned at the level of the children’s ability.***

*Key Questions for the teacher:*

1. *Is the quality of children’s work improving over time?*
2. *Are children broadening their knowledge?*
3. *Are children raising the level of their skills which they can use and apply throughout their work?*
4. *Are children deepening their understanding of the areas being studied?*

Subject: Age Related Statutory Coverage

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|  | ***Key Stage One Learning*** | ***Key Stage Two Learning*** |
| ***Skills*** | Design: Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.Design: Design purposeful, functional, appealing products for themselves and other users based on design criteria.Make: Select from and use a range of tools and equipment to perform practical tasks.Make: Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.Evaluate: Explore and evaluate a range of existing products.Evaluate: Evaluate their ideas and products against design criteria.Technical Knowledge: Build structures, exploring how they can be made stronger, stiffer and more stable.Technical Knowledge: Explore and use mechanisms in their products.Cooking and Nutrition: Use the basic principles of a healthy and varied diet to prepare dishes.Cooking and Nutrition: Understand where food comes from. | Design: Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.Design: Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.Make: Select from and use a wider range of tools and equipment to perform practical tasks.Make: Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.Evaluate: Investigate and analyse a range of existing products.Evaluate: Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.Evaluate: Understand how key events and individuals in design and technology have helped shape the world.Technical Knowledge: Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.Technical Knowledge: Understand and use mechanical systems in their products.Technical Knowledge: Understand and use electrical systems in their products.Technical Knowledge: Apply their understanding of computing to program, monitor and control their products.Cooking and Nutrition: Understand and apply the principles of a healthy and varied diet.Cooking and Nutrition: Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.Cooking and Nutrition: Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. |

Overview of Progress/Planning Progression

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| ***Year 1*** | ***Year 2*** | ***Year 3*** | ***Year 4*** | ***Year 5*** | ***Year 6*** |
| * Draw on their own experiences to generate ideas
* Suggest ideas and explain what they are going to do
* Identify a target group for what they intend to design and make
* Model their ideas in card and paper
* Develop their design ideas applying findings from their earlier research
 | * Generate ideas by drawing on their own and other people’s experiences
* Develop their design ideas through discussion, observation, drawing and modelling
* Identify a purpose for what they intend to design and make
* Identify simple design criteria
* Make simple drawings and label parts
 | * Generate ideas for an item, considering its purpose and the user/s
* Plan the order of their work before starting
* Identify a purpose and establish criteria for a successful product
* Explore, develop and communicate design proposals by modelling ideas
* Make drawings with labels when designing
 | * Generate ideas, considering the purposes for which they are designing
* Make labelled drawings from different views showing specific features
* Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making it if the first attempt fails
* Evaluate products and identify criteria that can be used to make their own designs
 | * Generate ideas through brainstorming and identify a purpose for their product
* Draw up a specification for their design
* Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making if the first attempts fail
* Use results of investigations, information sources, including ICT when developing design ideas
 | * Communicate their ideas through detailed, labelled drawings
* Develop a design specification
* Explore, communicate and develop aspects of their design proposals by modelling their ideas in a variety of ways
* Plan the order of their work. Choosing appropriate materials, tools and techniques
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| * Make their design using appropriate techniques
* With help measure, mark out, cut and shape a range of materials
* Use tools *eg scissors and a hole punch* safely
* Assemble, join and combine materials and components together using a variety of temporary methods e.g. glues or masking tape
* Select and use appropriate fruit and vegetables, processes and tools
* Use basic food handling, hygienic practices and personal hygiene
* Use simple finishing techniques to improve the appearance of their product
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| * Begin to select tools and materials; use vocab' to name and describe them
* Measure, cut and score with some accuracy
* Use hand tools safely and appropriately
* Assemble, join and combine materials in order to make a product
* Cut, shape and join fabric to make a simple garment. Use basic sewing techniques
* Follow safe procedures for food safety and hygiene
* Choose and use appropriate finishing techniques
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| * Select tools and techniques for making their product
* Measure, mark out, cut, score and assemble components with more accuracy
* Work safely and accurately with a range of simple tools
* Think about their ideas as they make progress and be willing change things if this helps them improve their work
* Measure, tape or pin, cut and join fabric with some accuracy
* Demonstrate hygienic food preparation and storage
* Use finishing techniques strengthen and improve the appearance of their product using a range of equipment including ICT
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| * Select appropriate tools and techniques for making their product
* Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques
* Join and combine materials and components accurately in temporary and permanent ways
* Sew using a range of different stitches, weave and knit
* Measure, tape or pin, cut and join fabric with some accuracy
* Use simple graphical communication techniques
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| * Select appropriate materials, tools and techniques
* Measure and mark out accurately
* Use skills in using different tools and equipment safely and accurately
* Weigh and measure accurately (time, dry ingredients, liquids)
* Apply the rules for basic food hygiene and other safe practices *e.g. hazards relating to the use of ovens*
* Cut and join with accuracy to ensure a good-quality finish to the product
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| * Select appropriate tools, materials, components and techniques
* Assemble components make working models
* Use tools safely and accurately
* Construct products using permanent joining techniques
* Make modifications as they go along
* Pin, sew and stitch materials together create a product
* Achieve a quality product
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| * Evaluate their product by discussing how well it works in relation to the purpose
* Evaluate their products as they are developed, identifying strengths and possible changes they might make
* Evaluate their product by asking questions about what they have made and how they have gone about it
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| * Evaluate against their design criteria
* Evaluate their products as they are developed, identifying strengths and possible changes they might make
* Talk about their ideas, saying what they like and dislike about them
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| * Evaluate their product against original design criteria *e.g. how well it meets its intended purpose*
* Disassemble and evaluate familiar products
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| * Evaluate their work both during and at the end of the assignment
* Evaluate their products carrying out appropriate tests
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| * Evaluate a product against the original design specification
* Evaluate it personally and seek evaluation from others
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| * Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests
* Record their evaluations using drawings with labels
* Evaluate against their original criteria and suggest ways that their product could be improved
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Suggestions for Activities to Meet the Curriculum Intent

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| ***Year 1*** | ***Year 2*** | ***Year 3*** | ***Year 4*** | ***Year 5*** | ***Year 6*** |
|  | Textiles – superheroesFood – vegetable soup. School garden and hot climatesPneumatics – alien masksConstruction – photo frames | Textiles – Egyptian cross stichFood – healthy wraps and vegetable fajitasPneumatics – moving monsters | Moving parts – moving Christmas cardsConstruction – treasure boxes and design-a-playgroundFood – pizzas and Greek salads | Textiles – space-scapesConstruction – musical instrumentsMechanics – steady hand gameFood – fruit salads/fruit tarts | Textiles – adventure proof outfitMechanics – torchesFood – fishcakes and soup/bread |