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Design and Technology Progression in Key Skills

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| Year Group | Key Skills |
| Year 1 | Use pictures and words to convey what they want to design/make.  Propose more than one idea for their product.  Use kits/reclaimed materials to develop more than one idea.  Model ideas with kits, reclaimed materials.  Discuss their work as it progresses.  Explain what they are making.  Explore existing products and investigate how they have been made.  Talk about their design as they develop and identify good and bad points. |
| Year 2 | Use drawings to record ideas as they are developed.  Add notes to drawings to help explanations.  Describe their models and drawings of ideas and intentions.  Explain which materials they are using and why.  Name the tools they are using.  Describe what they need to do next.  Decide how existing products do/do not achieve their purpose.  Note changes made during the making process as annotation to plans/drawings.  Discuss how closely their finished product meets their design criteria and how well it meets the needs of the user. |
| Year 3 | Develop more than one design or adaptation of an initial design.  Record the plan by drawing using annotated sketches.  Think ahead about the order of their work and decide upon tools and materials.  Prepare pattern pieces as templates for their design cutting slots and internal shapes.  Plan the stages of the making process.  Investigate similar products to the one to be made to give starting points for a design.  Draw/sketch products to help analyse and understand how products are made.  Identify the strengths and weaknesses of their design ideas in relation to purpose/user. |
| Year 4 | Plan a sequence of actions to make a product.  Use prototypes to develop and share ideas.  Propose realistic suggestions as to how they can achieve their design ideas.  Select from a range of tools for cutting shaping joining and finishing.  Use tools with accuracy.  Select from techniques for different parts of the process.  Select from materials according to their functional properties.  Consider and explain how the finished product could be improved.  Discuss how well the finished product meets the design criteria of the user. |
| Year 5 | Plan the sequence of work e.g. using a storyboard.  Record ideas using annotated diagrams.  Use models, kits and drawings to help formulate design ideas.  Sketch and model alternative ideas.  Develop one idea in depth.  Use researched information to inform decisions.  Use a computer to model ideas.  Select from and use a wide range of tools.  Select from and use a wide range of materials.  Research and evaluate existing products  Identify the strengths and weaknesses of their design ideas considering user and purpose. |
| Year 6 | Combine modelling and drawing to refine ideas.  Devise step by step plans which can be read / followed by someone else.  Use exploded diagrams and cross-sectional diagrams to communicate ideas.  Make prototypes.  Produce detailed lists of ingredients / components / materials and tools.  Use appropriate finishing techniques for the project.  Refine their product – review and rework/improve.  Consider and explain how the finished product could be improved related to design criteria.  Discuss how well the finished product meets the design criteria of the user. Test on the user! |