

Progression of Skills - Key Concepts (Procedural Knowledge)

These are cumulative expectations – what is learned in one year group should continue to be used in the next. Specific details relating to individual projects can be moved to those year groups that the project is undertaken.

<u>EYFS</u>			
<p style="text-align: center;"><u>Investigate</u></p> <p>Use peer or teacher made examples to inspire a creation. Explore methods of joining. Explore different materials freely, to develop their ideas about how to use them and what to make.</p>	<p style="text-align: center;"><u>Design</u></p> <p>Use paper to draw a plan. Discuss a plan with a peer or adult. Develop their own ideas and then decide which materials to use to express them.</p>	<p style="text-align: center;"><u>Make</u></p> <p>Select and use activities and resources, with help when needed. Use one handed tools and equipment with increasing confidence. Can collaborate, sharing ideas, resources and skills.</p>	<p style="text-align: center;"><u>Evaluate</u></p> <p>Discuss with an adult what they have made Answer 'I wonder' questions. Eg: 'I wonder what would happen if we put another object on top?' Can return to and build on previous learning, refine ideas and develop ability to represent them. share creations, talk about process and evaluate their work.</p>
<u>Key Stage 1</u>			
<p style="text-align: center;"><u>Investigate</u></p> <p>Explore existing products and investigate how they have been made (including teacher-made examples) Decide how existing products do/do not achieve their purpose. Investigate key events or persons in relation to the project.</p>	<p style="text-align: center;"><u>Design</u></p> <p>Use pictures & words to convey what they want to design/make. Explore ideas by rearranging materials. Select pictures to help develop ideas. Use mock-ups e.g. recycled material trial models to try out their ideas. Propose more than one idea for their product. Use ICT to communicate ideas. Use drawings to record ideas as they are developed. Add notes to drawings to help explanations</p>	<p style="text-align: center;"><u>Make</u></p> <p>Select materials from a limited range. Explain what they are making. Name the tools they are using Discuss their work as it progresses. Describe what they need to do next. Select and name the tools needed to work the materials/ ingredients. Explain which materials/ingredients they are using and why.</p>	<p style="text-align: center;"><u>Evaluate</u></p> <p>Talk about their design as they develop and identify good and bad points. Say what they like and do not like about items they have made and attempt to say why. Discuss how closely their finished product meets their own design criteria.</p>
<u>Lower Key Stage 2</u>			
<p style="text-align: center;"><u>Investigate</u></p> <p>Describe a key individual relating to a project and why they are significant. Investigate similar products to the one to be made to give starting points for a design. Research the needs of the user. Draw/sketch existing products to analyse and understand how products are made.</p>	<p style="text-align: center;"><u>Design</u></p> <p>Develop more than one design or adaptation of an initial design. Plan a sequence of actions to make a product. Think ahead about the order of their work and decide upon tools and materials. Propose realistic suggestions as to how they can achieve their design ideas. Record the plan by drawing using methods such as annotated sketches and other appropriate design methods such as pattern pieces. Use prototypes to develop and share ideas. Consider aesthetic qualities of materials chosen. Use CAD where appropriate.</p>	<p style="text-align: center;"><u>Make</u></p> <p>Select from a range of tools for cutting, shaping, joining and finishing. Use tools with accuracy. Select from materials according to their functional properties. Use appropriate finishing techniques. Select from techniques for different parts of the process. Use an increasing number of new tools with accuracy in projects. Test and use an increasing amount of joining techniques.</p>	<p style="text-align: center;"><u>Evaluate</u></p> <p>Decide which design idea to develop. Consider and explain how the finished product could be improved. Discuss how well the finished product meets the user's design criteria. Identify the strengths and weaknesses of their design ideas in relation to purpose/user.</p>
<u>Upper Key Stage 2</u>			
<p style="text-align: center;"><u>Investigate</u></p> <p>Research and evaluate existing products. Describe a key individual or event relating to the project and why they are significant and have helped shape the world. Understand how key people have influenced design in a variety of contexts. Consider user and purpose.</p>	<p style="text-align: center;"><u>Design</u></p> <p>Record ideas using various design techniques including annotated diagrams and cross-sectional diagrams. Use models, kits and drawings to help formulate design ideas. Sketch and model alternative ideas Decide which design idea to develop. Understand why designers use CAD. Plan the sequence of work. Devise step by step plans which can be read/followed by someone else. Use and understand about more involved design strategies such as exploded diagrams and cross-sectional diagrams to communicate ideas. Understand the principles of iterative design.</p>	<p style="text-align: center;"><u>Make</u></p> <p>Develop one idea in depth. Select from and use a wide range of tools. Cut accurately and safely e.g. to a marked line Select from and use a wide range of materials Make prototypes. Use researched information to inform decisions. Produce detailed lists of ingredients / components / materials and tools. Refine their product – review and rework/improve. Use a wide range of tools and materials. Understand why certain tools are used for certain jobs. Use a computer to model ideas. Use appropriate finishing techniques for the project.</p>	<p style="text-align: center;"><u>Evaluate</u></p> <p>Consider user and purpose needs fully when evaluating the product. Consider and explain how the finished product could be improved related to design criteria. Identify the strengths and weaknesses of their design ideas. Report using correct technical vocabulary. Discuss how well the finished product meets the design criteria having tested on/discussed outcomes with the user.</p>