# Design and Technology Progression in skills

| **EYFS :** Expressive arts and design | Early Learning Goal |
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| | Construct with purpose in mind<br>Use simple tools confidently and appropriately<br>Build and construct with a wide range of objects, selecting appropriate resources and adapting their work where necessary. |

| | **KS1** | **LKS2** | **UKS2** |
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| **Exploring**<br>NC links:<br>Explore, evaluate and investigate a range of existing products | With the class teacher, deconstruct a product (where possible) and answer the following questions:What is this product for and who would use it?<br>What impact will the product have on the user?<br>What materials have been used to make the product?<br>How are the materials joined together to make the product? | With the class teacher, deconstruct a product (where possible) and answer the following questions: What is this product for and who would use it?<br>What impact will the product have on the user?<br>What materials have been used to make the product?<br>Why are these good materials to use?<br>What adhesives have been used to join the materials together?<br>What mechanisms or electrical systems does the product have to help make it work?<br>How effective is this product in its design/purpose criteria? | Independently deconstruct a product (where possible) and make independent notes on this product under the following titles:<br>User<br>Purpose<br>Materials<br>Features<br>Effectiveness |
| **Researching**<br>NC Links:<br>Research to inform design - user requirements | Before designing a product think about and ask questions to find out information that will help make the product more effective in its purpose. E.g. is the house is a home for Little Red Riding Hood ask questions to find out what style of house she would like, what type of furnishings would help to make it comfortable? | Before designing a product independently write and ask questions to find out information that will help to make the product more effective in its purpose. E.g. what would be a popular, healthy sandwich to make. | Confidently investigate user requirements via a range of different channels such as asking questions, completing surveys and consumer choice. Then explain and summarise findings to inform design. |
| **Researching**<br>NC Links:<br>Research to inform design, | Before designing a product, with the class teacher, learn how a specific feature of a product works or has been constructed so they can use this | Before designing a product use a range of sources, the internet, books, to carry out research to find out how a specific feature of the product works so that it can be | Carry out independent research using the internet Q & A etc to look into a specific feature of the product to find out more information how this works. |

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| look at specific features. | in their own design. E.g. How a structure can be strengthened by the frame it is standing on, how a hinge works, how wheels are placed on the axle etc | incorporated in their design. E.g. how different pneumatic systems work to create a moving part or different ways to make a piece of paper stronger. | |
| **Researching**<br>NC links:<br>To generate, communicate and build on ideas | Using the information from exploring and researching generate an idea and make a simple sketch of the idea for the product that meets the given criteria.<br>Discuss their idea and answer the following questions:<br>What will their product do and who is it for?<br>How will their product help/impact the users life?<br>What materials will they use to make their product?<br>How will they join their materials? | Using the information from exploring and researching generate an idea and make a detailed sketch or computer-aided design of the idea that meets the given criteria.<br>Add annotations to their sketch with regard to the materials to be used, how these materials will be attached, specific design features and what tools they will use to make the product. The children will need a word bank to choose from. | Using the information from exploring and researching generate an idea and produce a cross-sectional and exploded diagram that meet the given criteria.<br>Independently add annotations to their diagram with regard to the materials to be used and how they will be attached, and specific design features.<br>Refine work and techniques as the work progresses, continually evaluating the product design.<br>Make a prototype of the design. |
| **Evaluating**<br>NC links:<br>Evaluate their ideas and products against the criteria | Evaluate their product against a simple design criteria.<br>Did their product match their design?<br>What was the best feature of their design?<br>What could they do to improve the product further? | Identify the strengths and areas for development in their ideas and product.<br>Consider the views of others to improve their work. | To investigate and analyse :<br>How well has their product been designed and made?<br>How well has their product met the needs of the user?<br>How much has the product cost to make?<br>How effective and sustainable are the materials that have been used for the product?<br>How effective were their methods of construction?<br>How robust is the product?<br>Consider the views of others including intended users, to improve their work. |