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| **D.T.** | **EYFS** | **Y1** | **Y2** | **Y3** | **Y4** | **Y5** | **Y6** |
| **Developing, Planning and Communicating Ideas** | * Can children safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function? * Can children use what they have learned about media and materials in original ways, thinking about uses and purposes? * Can they represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role play and stories? | * Can they identify the key features of an existing product? * Can they think of some ideas on their own? * Can they plan an outcome through pictures with labels? * Can they explain their ideas orally? | * Can they generate ideas through comparing existing products? * Can they create an innovative product? * Can they choose the most appropriate tools and materials and explain their choices? * Can they describe their design by using pictures, diagrams and words? | * Can they plan their design using accurate diagrams and information? * Can they plan the equipment/tools needed and give reasons why? * Can they start to order the main stages of making their product? * Can they identify a design criterion and establish a purpose/audience for their product? * How realistic are their plans? E.g., tools, equipment, materials, components. | * Can they create a final design for their product based on initial ideas and revisions based on existing ideas? * Can they create a detailed plan considering their target audience, design criteria and intended purpose? | * Can they survey their target audience and use this to generate ideas? * Can they take a user’s view into account when designing? * Can the produce a detailed step-by-step plan for their design method? * Can they suggest some alternative designs and compare the benefits and drawbacks to inform the design process and outcome? | * Can they use a range of information to inform their design? * Can they use market research to inform plans? * Can they work within constraints? * Can they justify their plan to someone else? * Can they consider culture and society in their design? * Have they considered the use of the product when selecting materials? * Have they thought about how their product can be marketed through packaging and advertising? |
| **Working with Tools, Equipment, Materials and Components to Make Products** | * Can they explain what they are making? * Can they select the appropriate resources and tools? * Can they explain which tools they are using and why? * Can they use tools safely? | * Can they join materials/components together in different ways? * Can they measure materials to use in a model or structure? * Can they use joining, folding or rolling to make it stronger? | * Can they use equipment and tool accurately and safely? * Can they select the most appropriate materials, tools and techniques to use? * Can they manipulate materials using a range of tools and equipment? * Can they measure, cut and assemble with increasing accuracy? | * Can they use equipment and tools with increased accuracy and safely? * Can they select the most effective materials, tools and techniques to use? * Can they manipulate materials effectively using a range of tools and equipment? * Can they measure, cut and assemble accurately? | * Can they choose appropriate tools and materials to ensure that the final product will appeal to the audience? * Can they use a range of tools and equipment with good accuracy and effectiveness, within established safety parameters? | * Can they choose appropriate tools and materials to ensure that the final product will appeal to the audience? * Can they use a range of tools and equipment with good accuracy and effectiveness, within established safety parameters? |
| **Evaluating Processes and Products** | * Can they describe how their products works? * Can they identify success and next steps? | * Can they assess how well their product works? * If they did it again, can they explain what they would improve? | * Can they start to think about their ideas as they make progress and be willing to make changes if this helps them to improve their work? * Can they assess how well their product works in relation to the purpose? * Can they explain how they could change their design to make it better? | * Can they think about their ideas as they progress and make changes to improve their work? * Can they assess how well their product works in relation to the design criteria and intended purpose? * Can they explain how they could improve their design and how their improvements would affect the original outcome? | * Can they continuously check that their design is effective and fit for purpose? * Can they assess how well their product works in relation to the design criteria and intended purpose and suggest improvements? * Can they evaluate appearance and function against the original design criteria? | * How well do they test and evaluate their final product? * Is it fit for purpose? * What would improve it? * Would different resources have improved their product? * Would they need more or different information to make it even better? * Does their product meet all design criteria? |
| **Mechanisms**  **(Y6 Electrical & Mechanical)** | * Can they make a product which moves? * Can they cut materials using scissors? * Can they describe the materials using different words? * Can they say why they have chosen moving parts? | * Can they join materials together as part of a moving product? * Can they explain how different parts move? | * Can they make a product which uses mechanical components? * Can they use a range of components? E.g., levers, linkages and pneumatic systems | * Can they use a simple circuit and add components to it? * Can they make a product which uses both electrical and mechanical components? | * Can they refine their product after testing it? * Can they incorporate hydraulics and pneumatics? | * Can they use different kinds of circuits in their product to improve it? * Can they incorporate a switch into their product? * Can they refine their product after testing it? |
| **Construction and Use of Materials** | * Can they arrange pieces of the construction before building? * Can they make a structure/model using different materials? | * Can they make sensible choices of which materials to use for their construction? * Can they make their structure stronger, stiffer or more stable? | * Can they join materials effectively to build a product? * Can they use a range of techniques to shape and mould materials? * Can they use finishing techniques? E.g. sanding, varnishing, glazing etc | * Can they measure accurately to build effective structures? * Can they use a range of techniques to shape and mould? * Can they experiment with a range of techniques to increase stability in a structure? * Can they use finishing techniques, showing an awareness of audience? E.g., sanding, varnishing. Glazing etc | * Are their measurements accurate enough to ensure precision? * Can they demonstrate that their product is strong and fit for purpose? * Are they motivated to refine and further improve their product? | * Are their measurements accurate enough to ensure precision? * Can they demonstrate that their product is strong and fit for purpose? * Are they motivated to refine and further improve their product? |
| **Textiles** | * Can they group fabrics and threads by colour and texture? * Can they weave a pattern? * Can they identify when patterns are used in textile design? | * Can they measure an amount of a textile? * Can they join textiles together to make a product using techniques such as stitching? * Can they cut textiles accurately? * Can they explain why they chose a certain textile? * Can they bond fabrics together? * Can they build an image using fabrics? * Can they create a large-scale textile or sculpture piece through class collaboration? | * Can they join textiles of different types in a range of ways? * Can they choose textiles both for their appearance and qualities? * Can they begin to use a range of simple stitches? * Can they use fabric to build an image? * Can they add details to a piece of work? * Can they add texture to a piece of work? | * Can they consider which materials are fit for purpose and join them appropriately? * Can they devise a template or pattern for their product? * Can they explore a range of textures using textiles? * Can they transfer a drawing into a textile design? * Can they use artist to influence their textile designs? | * Can they consider the audience when choosing textiles? * Can they make up a prototype first? * Can they use a range of joining techniques? * Can they devise a template or pattern for their product? * Can they explore a range of textures using textiles? * Can they transfer a drawing into a textile design? * Can they experiment with different ways of exploring textiles? * Can they use artists to influence their textile designs? | * Can they consider the audience when choosing textiles? * Can they make up a prototype first? * Can they use a range of joining techniques? |
| **Food & Nutrition** | * Can they cut food safely? | * Can they describe the ingredients they are using? | * Can they describe how ingredients come together? | * Do they know how to be hygienic and safe when using food? | * Can they show how to be both hygienic and safe in the kitchen? |  |