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| DT ESSENTIAL SKILLS REC to Y6  STRAND: PLANNING, KNOWLEDGE AND EVALUATION | | | | | | | |
|  | EYFS Skills | Key Stage 1 Skills | | Lower Key Stage 2 Skills | | Upper Key Stage 2 Skills | |
|  | End of REC  Expectations | End of Year 1  Expectations | End of Year 2  Expectations | End of Year 3 Expectations | End of Year 4  Expectations | End of Year 5 Expectations | End of Year 6 Expectations |
| ASPECT | Average age 5 years 6 months | Average age 6yrs 6months | Average age 7years 6 months | Average age  8years 6 months | Average age 9 years 6 months | Average age 10 years 6 months | Average age 11 years 6 months |
| Designing |  | Draw a simple picture of an intended design with basic labelling. | Produce detailed, labelled drawings or models of products based on design criteria. | Share ides through words, labelled sketches and models, recognising that designs have to meet a range of need, including being fir for purpose. | Collect information from a number of different sources and use this information to inform design ideas in words, labelled sketches, diagrams and models, keeping in mind fitness for purpose and the end user. | Use various sources of information clarifying/sharing ideas through discussion labelled sketches, cross-sectional diagrams and modelling, recognising that ideas have to meet range of needs. | Develop detailed criteria for designs for products aimed at particular individuals or groups, sharing ideas through cross-sectional and exploded diagrams, prototypes and pattern pieces. |
| Using ICT to aid design |  | Use ICT packages to create a simple plan for a design. | Use ICT packages to create a labelled design or plan. | Use ICT packages to create a labelled design or plan, in detail. | Use ICT packages to create alternatives for an initial design. | Use CAD and CAM packages to suggest alternative design ideas and explain their ideas and intentions. | Use CAS/CAM packages to design moving parts of a design. |
| Working from plans |  | With help, put ideas into practice. | Think of ideas and plan what to do next, based on their experience of working with materials and components. | Make realistic plans, identifying processes, equipment and materials needed. | Make realistic, step by step plans, reflecting on designs as the product develops. | Work from own detailed plans, modifying them where appropriate. | Check work as it develops and modify their approach in the light of progress. |
| Opinion and influence |  | Describe others’ work, including work by professional craftspeople and designers and say what they like and dislike about it. | Describe similarities and differences between own and others’ work including work by profession craftspeople and designers. | Compare and contrast great bridge designs, explaining why a particular design is significant in engineering history. | Describe the work of a favourite fashion designer and explain why they like his/her designs. | Research the work done by textile artists and say what they like about a piece identifying the techniques and materials used in creating it and the aesthetic value. | Research cultural traditions and evidence their influence in their own work. |
| Existing product evaluation |  | Describe how an existing product works (e.g. ‘the toy moves when I turn the handle’). | Investigate a range of existing products and say if they do what they are supposed to do. | Investigate the design features (including identifying components or ingredients) of familiar existing products. | Explain how an existing product is useful to the user. | Investigate the design features (including identifying components or ingredients of a familiar existing product in the context of the culture or society in which it was designed or made. | Explain the form and function of familiar existing products. |
| Evaluation |  | Talk about their own and others’ work identifying strengths or weaknesses. | Explain how closely, finished products, meet their design criteria and say what they could do better in the future. | Suggest improvements to products made and describe how to implement them (taking the views of others into account). | Identify what has worked well and what could be improved, evidencing and explaining the results of research. | Test and evaluate products against a detailed design specification and make adaptations as they develop the product. | Demonstrate modifications made to a product, as a result of ongoing evaluation, by themselves and others. |
| History and culture |  | Order products or designs chronologically and begin to explain reasons why they are ordered in that way. | Describe why a design, building or designer is important. | Explain the impact of a design or designer on design history and how this has helped to shape the world. | Explain how fashions and fabrics have changed over time and how this has affected fashion. Explain how the design of a product has changed over time. | Create a timeline to sequence the development of a design over time and describe how technology has influenced it. | Describe how an individual in the field of design and technology has helped shape the world. |