



MILESTONE-DESIGN AND TECHNOLOGY

Outcomes

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| Design to Make | |
| | <ul style="list-style-type: none"> ▪ Talk about what they want to make ▪ Make decisions about what they will make when given a choice of resources ▪ Make decisions about what they will make based on criteria provided. ▪ Identify reasons for the decisions they have made about what they will create (based on criteria provided) ▪ Design purposeful products based on design criteria ▪ Design purposeful, functional products based on design criteria ▪ Design purposeful, functional, appealing products based on design criteria ▪ Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, ICT ▪ Use research and develop criteria to inform the design of innovative, functional, appealing products that are fit for purpose ▪ Use research and develop criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups ▪ Generate, develop, model and communicate ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design |
| Evaluate | |
| | <ul style="list-style-type: none"> ▪ Be excited about what they have made ▪ Identify specifically what they like about what they have made ▪ Identify specifically what they like about what others have made ▪ Indicate feelings about the process of designing and making ▪ Identify something that can be improved on what they have made ▪ Explore and evaluate a range of existing products ▪ Evaluate ideas and products against design criteria ▪ Evaluate ideas and products against their own design criteria and consider the views of others to improve their work |
| Make | |
| | <ul style="list-style-type: none"> ▪ Combines materials to create new objects/effects ▪ Construct with a purpose in mind, using a variety of resources (may be adult led) ▪ Uses simple tools, resources and techniques appropriately when making ▪ Selects tools and techniques needed to shape, assemble and join materials they are using ▪ Safely uses and explores a variety of materials, tools and techniques, experimenting with design, form and function. ▪ Creates simple representations of objects ▪ Use what they have learnt about media and materials in original ways, thinking about uses and purposes. ▪ Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] ▪ Select from and use a wide range of materials and components, including construction materials, textiles, ingredients according to their characteristics ▪ Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately ▪ Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities. |
| Technical Knowledge | |
| | <ul style="list-style-type: none"> ▪ Builds structures for purpose ▪ Builds stable structures ▪ Build structures, exploring how they can be made stronger, stiffer and more stable ▪ Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. ▪ Apply their understanding of how to strengthen, stiffen and reinforce more complex structures ▪ Understand and effectively use mechanisms [for example, levers, sliders, wheels and axles], in their products. ▪ Explore an use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] ▪ Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] ▪ Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] ▪ Apply their understanding of computing to program, monitor and control products |