DT NC objectives

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| **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| Design  **design purposeful, functional, appealing products for themselves and other users based on design criteria**  **generate**, develop, model and **communicate** **their ideas through talking**, **drawing**, templates, mock-ups and, where appropriate, information and communication technology  To draw a labelled picture of their design.  Verbally communicate their design ideas.  Make  **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 and ingredients, according to their characteristics**  Evaluate  **evaluate their ideas and products against design criteria**  Write one thing that was successful and one thing to improve.  Technical knowledge  **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**  Cooking and nutrition  **use the basic principles of a healthy and varied diet to prepare dishes**  **understand where food comes from.** | Design  **design purposeful, functional, appealing products for themselves and other users based on design criteria**  **generate, develop, model and communicate their ideas through** talking, drawing, **templates, mock-ups and, where appropriate, information and communication technology**  To draw 2 labelled pictures of their design, choosing their favourite.  Verbally communicate their design ideas to a partner.  Make  **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 and ingredients, according to their characteristics**  Evaluate  **explore and evaluate a range of existing products**  **evaluate their ideas and products against design criteria**  Write two things that was successful and one thing to improve and why.  Technical knowledge  **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**  Cooking and nutrition  **use the basic principles of a healthy and varied diet to prepare dishes**  **understand where food comes from.** | Design  **use research and develop design 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 their ideas through discussion**, **annotated sketches**, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design  Verbally communicate their design ideas small discussion group and group to offer opinion.  Make  **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**  Evaluate  **evaluate their ideas and products against their own design criteria** and consider the views of others to improve their work  Technical knowledge  **apply their understanding of how to strengthen, stiffen and reinforce more complex structures** (can incorporate either mechanical or electrical)  Cooking and nutrition  **understand and apply the principles of a healthy and varied diet**  **prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques**  **understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.** | Design  **use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups**  To analyse existing products to give design ideas.  **generate, develop, model and communicate their ideas through** discussion, annotated sketches, **cross-sectional and exploded diagrams**, prototypes, pattern pieces and computer-aided design  Verbally communicate their design process.  To question and give constructive opinion on others designs.  Make  **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**  Evaluate  **evaluate their ideas and products against their own design criteria and consider the views of others to improve their work**  Technical knowledge  **understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]**  Cooking and nutrition  **understand and apply the principles of a healthy and varied diet**  **prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques**  **understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.** | Design  **use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups**  To analyse a range of existing products to give design ideas.  **generate, develop, model and communicate their ideas through** discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and **computer-aided design**  Verbally discuss whether a computer aided design is more effective than other ways of designing.  Make  **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**  Evaluate  **investigate and analyse a range of existing products**  **evaluate their ideas and products against their own design criteria and consider the views of others to improve their work**  Technical knowledge  **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 their products.**  Cooking and nutrition  **prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques** | Design  **use research and develop design 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 their ideas through** discussion, annotated sketches, cross-sectional and exploded diagrams, **prototypes**, **pattern pieces and** computer  Evaluate and make changes to a made or designed prototype.  Make  **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**  Evaluate  **investigate and analyse a range of existing products**  **evaluate their ideas and products against their own design criteria and consider the views of others to improve their work**  **understand how key events and individuals in design and technology have helped shape the world**  Technical knowledge  **apply their understanding of computing to program, monitor and control their products.**  To learn at least 3 different stitches in order to create a finished product e.g book mark, bag, coaster.  Cooking and nutrition  **prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques** |