



Cliftonville DT Curriculum Endpoints

By the end of Y1:

- describe the purpose and intended user for the products they design and make
- develop a simple design criteria as part of the class
- make simple drawings for their design with simple labels
- plan by suggesting what to do next
- begin to identify and name which tools and materials they will need and explain why they have made these selections
- describe the characteristics of materials and components that they use
- cut, shape, assemble, join and combine materials with developing accuracy: scissors, glue, tape
- use basic food handling, hygienic practices and personal hygiene
- investigate and make sliders and levers
- evaluate existing (and their own) products, describing what their purpose is, how they work, what materials are used and what they like and dislike about them

By the end of Y2:

- describe the purpose and intended user for the products they design and make
- develop a simple design criteria with some degree of independence
- make simple drawings for their design and label parts in more detail
- begin to select tools and materials; using vocabulary to name and describe them
- measure, cut and score with some accuracy: wood, card, paper and fabric
- use hand tools safely and appropriately: junior hacksaws, glue guns, scissors, needles
- assemble, join and combine materials, including using basic sewing techniques
- follow safe procedures for food safety and hygiene
- describe how an axle is used to enable wheels on a vehicle to turn
- evaluate design ideas and what they are making, identifying strengths and possible changes they might make
- evaluate their products against their design criteria, saying what worked well and what could be improved

By the end of Y3:

- generate ideas for an item, considering its purpose and the user
- use their research to develop their own design criteria
- use annotated sketches to develop their ideas, indicating the features that will appeal to intended users
- develop a clear idea of what has to be done, and in what order
- select tools and techniques for making their product
- measure, mark out, cut, score and assemble components with more accuracy
- demonstrate hygienic food preparation and storage
- identify whether ingredients used have been grown or reared
- identify structural features of bridges
- use Lego WeDo (computer-controlled products) to achieve different outputs
- think about their ideas as they make progress and be willing change things to improve their work
- evaluate their product against the original design criteria, identifying how well it meets its intended purpose

By the end of Y4:

- generate ideas for an item, considering its purpose and the user
- use their research to develop their own design criteria
- make labelled drawings from different views showing specific features

- develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail
- measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques
- join and combine materials and components accurately in temporary and permanent ways
- identify and use ways of strengthening structures
- make a lever and linkage mechanism and a pulley mechanism
- weave using a range of materials
- measure, tape or pin, cut and join fabric with some accuracy
- consider how well their design is meeting their intended purpose by referring to the design criteria and decide whether they need to make any changes
- evaluate their products carrying out appropriate tests.

By the end of Y5:

- research products, contexts and potential users, using surveys, interviews, questionnaires and web-based resources
- use the results of investigations and information sources, including ICT, to develop design ideas
- draw up a specification for their design
- communicate their ideas through detailed labelled drawings, indicating the features that will appeal to intended users and how particular parts will work
- measure, mark out, cut, shape and join a range of materials with accuracy, using appropriate tools, equipment and techniques
- apply the rules for basic food hygiene and other safe practices e.g. hazards relating to the use of ovens
- weigh and measure accurately (time, dry ingredients, liquids)
- describe how seasons may affect food availability; and how food is processed into ingredients that can be eaten or used in cooking
- describe how different outputs can be achieved using Lego WeDo (computer-controlled products)
- critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make and make necessary modifications
- evaluate their products against the original design specification, carrying out appropriate tests.

By the end of Y6:

- research products, contexts and potential users, using surveys, interviews, questionnaires and web-based resources
- identify the needs, wants, preferences and values of particular individuals and groups
- use the results of investigations and information sources, including ICT, to develop design ideas
- draw up a specification for their design
- communicate their ideas through detailed labelled drawings, indicating the features that will appeal to intended users and how particular parts will work
- plan the order of their work, choosing appropriate materials, tools and techniques, and suggesting alternative methods of making if the first attempts fail
- use tools safely and accurately to produce well-made, functioning products
- assemble components to make working models using cams
- construct products using permanent joining techniques to produce a high-quality finish
- pin, sew and stitch materials together create a product
- critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make and make necessary modifications
- evaluate their products against the original design specification, carrying out appropriate tests