CHORLTON CofE PRIMARY SCHOOL

DT Progression of skills KS1

Blue- Year 1 and 2, Yellow- Year 1, Green- Year 2

KS1 National Curriculum objectives:

Designing – Understanding contexts, users and purposes

D1 work confidently within a range of contexts, such as imaginary, story- based, home, school, gardens, playgrounds, local community, industry and the wider environment- **Forest school link**
D2 state what products they are making
D3 say whether their products are for themselves or other users
D4 describe what their products are for
D5 say how their products will work
D6 say how they will make their products suitable for their intended users
D7 use simple design criteria to help develop their ideas

Designing - Generating, developing, modelling and communicating ideas

D8 generate ideas by drawing on their own experiences
D9 use knowledge of existing products to help come up with ideas
D10 develop and communicate ideas by talking and drawing

Making - Planning

M1 plan by suggesting what to do next
M2 select from a range of tools and equipment, explaining their choices
M3 select from a range of materials and components according to their characteristics

Making – Practical skills and techniques

M4 follow procedures for safety and hygiene
M5 use a range of materials and components, including construction materials, textiles, food ingredients and mechanical components
M6 measure, mark out, cut and shape materials and components
M7 assemble, join and combine materials and components
M8 use finishing techniques, including those from art and design

Technical knowledge – Making products work

T1 about the simple working characteristics of materials and components
T2 about the movement of simple mechanisms such as levers, sliders, wheels and axles (moon buggies)
T3 that a 3-D textiles product can be assembled from two identical fabric shape
T4 that food ingredients should be combined according to their sensory characteristics
T5 the correct technical vocabulary for the projects they are undertaking

Evaluating – Own ideas and products

E1 talk about their design ideas and what they are making
E2 make simple judgements about their products and ideas against design criteria
E3 suggest how their products could be improved

Evaluating – Existing products

E4 explore what products are and who or what they are for.
E5 explore how products work and how or where they might be used.
E6 explore what materials products are made from
E7 explore what they like and dislike about products

Cooking and nutrition – Where food comes from

C1 that all food comes from plants or animals
C2 that food has to be farmed, grown elsewhere (e.g. home) or caught (Link to science)

Cooking and nutrition – Food preparation, cooking and nutrition

C3 how to name and sort foods into the five groups in The Eat well Plate
C4 that everyone should eat at least five portions of fruit and vegetables every day
C5 how to prepare simple dishes safely and hygienically, without using a heat source
C6 how to use techniques such as cutting, peeling and grating

CHORLTON CofE PRIMARY SCHOOL

DT Progression of skills Lower KS2

Blue- Year 3 and 4, Yellow- Year 3, Green- Year 4

Lower KS2 National Curriculum objectives:

Designing – Understanding contexts, users and purposes

D1 work confidently within a range of contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment
D2 describe the purpose of their products
D3 indicate the design features of their products that will appeal to intended users
D4 explain how particular parts of their products work
D5 gather information about needs and wants of particular individuals and groups
D6 develop their own design criteria and use these to inform their ideas

Designing - Generating, developing, modelling and communicating ideas

D7 share and clarify ideas through discussion
D8 model their ideas using prototypes and pattern pieces
D9 use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas
D10 use computer-aided design to develop and communicate their ideas
D11 generate realistic ideas, focusing on the needs of the user
D12 make design decisions that take account of the availability of resources

Making - Planning

M1 select tools and equipment suitable for the task
M2 explain their choice of tools and equipment in relation to the skills and techniques they will be using
M3 select materials and components suitable for the task
M4 explain their choice of materials and components according to functional properties and aesthetic qualities
M5 order the main stages of making

Making – Practical skills and techniques

M6 follow procedures for safety and hygiene
M7 use a wider range of materials and components than KS1, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components
M8 measure, mark out, cut and shape materials and components with some accuracy
M9 assemble, join and combine materials and components with some accuracy
M10 apply a range of finishing techniques, including those from art and design, with some accuracy

Evaluating – Own ideas and products

E1 identify the strengths and areas for development in their ideas and products
E2 consider the views of others, including intended users, to improve their work
E3 refer to their design criteria as they design and make
E4 use their design criteria to evaluate their completed products

Evaluating – Existing products

Pupils will be taught to investigate and analyse:
E5 how well products have been designed and made
E6 why materials have been chosen
E7 what methods of construction have been used
E8 developed ground-breaking products

Technical knowledge – Making products work

T1 how to use learning from science and maths to help design and make products that work
T2 that materials have both functional properties and aesthetic qualities
T3 that materials can be combined and mixed to create more useful characteristics
T4 that mechanical and electrical systems have an input, process and output
T5 use the correct technical vocabulary for the projects they are undertaking
T6 how mechanical systems such as levers
T7 how simple electrical circuits and components can be used to create functional products
T8 how to make strong, stiff shell structures
T9 that a single fabric shape can be used to make a 3D textiles product
T10 that food ingredients can be fresh, pre-cooked and processed

E9 how well products work to achieve their purposes E10 how well products meet user needs and wants E11 who designed and made the products E12 where and when products were designed and made E13 whether products can be recycled or reused **Evaluating – Key events and individuals** E14 about inventors, designers, engineers, chefs and manufacturers who have	**Cooking and nutrition – Where food comes from** C1 that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens C2 and cattle) and caught (such as fish) in the UK, Europe and the wider world **Cooking and nutrition – Food preparation, cooking and nutrition** C3 how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source C4 how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking C5 that a healthy diet is made up from a variety and balance of different food and drink, as depicted in The Eatwell Plate C6 that to be active and healthy, food and drink are needed to provide energy for the body

CHORLTON CofE PRIMARY SCHOOL

DT Progression of skills Upper KS2

Blue- Year 5 and 6, Yellow- Year 5, Green- Year 6

Upper KS2 National Curriculum objectives: In this unit, children will be taught to:

Designing – Understanding contexts, users and purposes

D1 work confidently within a range of contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment
D2 describe the purpose of their products
D3 indicate the design features of their products that will appeal to intended users
D4 explain how particular parts of their products work
D5 carry out research, using surveys, interviews, questionnaires and web-based resources
D6 identify the needs, wants, preferences and values of particular individuals and groups
D7 develop a simple design specification to guide their thinking

Designing - Generating, developing, modelling and communicating ideas

D8 share and clarify ideas through discussion
D9 model their ideas using prototypes and pattern pieces
D10 use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas
D11 use computer-aided design to develop and communicate their ideas
D12generate realistic ideas, focusing on the needs of the user
D13 make design decisions that take account of the availability of resources

Making - Planning

M1 select tools and equipment suitable for the task
M2 explain their choice of tools and equipment in relation to the skills and techniques they will be using
M3 select materials and components suitable for the task
M4 explain their choice of materials and components according to functional properties and aesthetic qualities
M5 produce appropriate lists of tools, equipment and materials that they need
M6 formulate step-by-step plans as a guide to making

Making – Practical skills and techniques

M7 follow procedures for safety and hygiene
M8 use a wider range of materials and components than KS1, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components
M9 accurately measure, mark out, cut and shape materials and components
M10 accurately assemble, join and combine materials and components
M11 accurately apply a range of finishing techniques, including those from art and design
M12 use techniques that involve a number of steps
M13 demonstrate resourcefulness when tackling practical problems

Evaluating – Own ideas and products

E1 identify the strengths and areas for development in their ideas and products
E2 consider the views of others, including intended users, to improve their work
E3 critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make
E4 evaluate their ideas and products against their original design specification

Technical knowledge – Making products work

T1 how to use learning from science and maths to help design and make products that work
T2 that materials have both functional properties and aesthetic qualities
T3 that materials can be combined and mixed to create more useful characteristics
T4 how mechanical systems such as cams or pulleys or gears create movement

Evaluating – Existing products Pupils will be taught to investigate and analyse: E5 how well products have been designed and made E6 why materials have been chosen E7 what methods of construction have been used E8 how well products work to achieve their purposes E9 how well products meet user needs and wants E10 how much products cost to make E11 how innovative products are E12 how sustainable the materials in products are E13 what impact products have beyond their intended purpose	T5 how more complex electrical circuits and components can be used to create functional products- Link to science T6 how to reinforce and strengthen a 3D framework T7 that a 3D textiles product can be made from a combination of fabric shapes T8 that a recipe can be adapted by adding or substituting one or more ingredients **Cooking and nutrition – Where food comes from** C1 that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world C2 that seasons may affect the food available C3 how food is processed into ingredients that can be eaten or used in cooking **Cooking and nutrition – Food preparation, cooking and nutrition** C4 how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source C5 how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking C6 that recipes can be adapted to change the appearance, taste, texture and aroma C7 that different food and drink contain different substances – nutrients, water and fibre – that are needed for health