



Subject Sequence - Designer

Develop the creative, technical and practical expertise to design, make and evaluate products in a range of contexts

Make

- Select from and use a wide range of materials eg *construction, textiles and ingredients*
- Select from and use a wide range of tools and equipment to cut, shape, join and finish
- Use a wider range of tools, equipment, materials and components
- Place greater emphasis on accuracy and aesthetics

Technical Knowledge

- Build structures, exploring how they could be made stronger, stiffer and more stable
- Explore and use mechanisms: levers, wheels and axles
- Apply understanding of how to strengthen, stiffen and reinforce structures
- Understand and use mechanical systems: gears, pulleys, cams, levers and linkages
- Understand and use electrical systems: series circuits, switches, bulbs and motors
- Apply understanding of computing to program, monitor and control products

Evaluate

- Explore and evaluate a range of existing products
 - Evaluate own ideas and designs against design criteria
- As Key Stage 1 plus:**
- Consider views of others to improve work
 - Understand how key events and individuals in D&T helped shape the world

Design

- Design products that are purposeful, functional and appealing
 - Generate, develop, model and communicate ideas through talking, drawing, templates and ICT
- As Key Stage 1 plus:**
- Communicate and annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and CAD
 - Use research to inform design



Make

Intent (Standardised Objectives)

Year 1

- Use a range of materials and components eg *construction, textiles and ingredients*
- Use a range of tools and equipment to perform practical tasks eg *cut, shape, join and finish*

Year 2

- Select from and use a wide range of materials and components (according to their characteristics) eg *construction, textiles and ingredients*
- Select from and use a wide range of tools and equipment to perform practical tasks eg *cut, shape, join and finish*

Year 3

- Select from and use a wide range of tools, equipment, materials and components accurately

Year 4

- Select from and use a wider range of tools, equipment, materials and components accurately to make prototypes

Year 5

- According to their functional properties and aesthetic qualities, select from and use a wide range of tools, equipment, materials and components accurately to make highquality prototypes

Year 6

- According to their functional properties and aesthetic qualities, select from and use a wide range of tools, equipment, materials and components accurately to make high quality prototypes



Technical Knowledge

Intent (Standardised Objectives)

Year 1

- Start to build structures, exploring ways to stiffen, stable and strengthen
- Explore simple mechanisms

Year 2

- Build structures, exploring ways to stiffen, stabilise and strengthen
- Explore and use mechanisms eg levers, wheels and axles

Year 3

- Apply understanding of how to strengthen, stiffen and reinforce structures
- Identify range of mechanical systems and how they work (gears, pulleys, cams, levers and linkages)



Year 4

- Apply understanding of how to strengthen, stiffen in order to reinforce more complex structures
- Use computing to program, monitor and control products
- Identify wider range of mechanical systems and how they work (gears, pulleys, cams, levers and linkages)
- Use understanding of electrical systems (series circuits, switches, bulbs and motors)

Year 5

- Construct more complex structures by applying range of strategies in order to solve real/relevant problems
- Drawing on disciplines & making connections to wider subject areas, apply understanding of computing to program, monitor and control products
- Making connections to real & relevant problems, apply understanding of wider range of mechanical systems (gears, pulleys, cams, levers and linkages)
- Making connections to real & relevant problems, apply understanding of electrical systems (series circuits, switches, bulbs and motors)

Year 6

- Construct more complex structures by applying range of strategies in order to solve real/relevant problems
- Drawing on disciplines & making connections to wider subject areas, apply understanding of computing to program, monitor and control products
- Making connections to real & relevant problems, apply understanding of wider range of mechanical systems (gears, pulleys, cams, levers and linkages)
- Making connections to real & relevant problems, apply understanding of electrical systems (series circuits, switches, bulbs and motors)



Evaluate

Intent (Standardised Objectives)

Year 1

- Explore existing products eg home, school
- Discuss own ideas and designs

Year 2

- Explore and evaluate a range of existing products eg home, school
- Evaluate own ideas and designs against given design criteria

Year 3

- Evaluate own ideas and designs against given design criteria and consider the views of others to improve their work
- Investigate a range of existing products that address real/relevant problems, in a range of contexts eg home, leisure, school

Year 4

- Evaluate own and others' work suggesting improvements and consider the views of others to improve their work
- Investigate a range of existing products in a range of relevant contexts eg culture, industry

Year 5

- Generate own design criteria and evaluate ideas and products against these Investigate and analyse a range of existing products that address real/relevant problems, in a range of relevant contexts
- Understand how key events and individuals in D&T helped to shape the world

Year 6

- Generate own design criteria and critique ideas and products against these
- Explain and understand how key events and individuals in D&T helped to shape the world



Design

Intent (Standardised Objectives)

Year 1

- Design simple products that work and look appealing
- Discuss and draw ideas and use ICT to communicate

Year 2

- Design products for others and themselves that are purposeful, functional and appealing
- Generate, develop, model and communicate ideas through talking, drawing, templates and ICT

Year 3

- Communicate ideas using different strategies eg discussion, sketch
- Use research to inform design
- Take risks to become innovative and resourceful



Design

Intent (Standardised Objectives)

Year 4

- Communicate, generate and develop ideas using a range of strategies eg prototypes, pattern pieces
- Use research to inform design and develop design criteria
- Take risks to become innovative and resourceful

Year 5

- Communicate, generate, develop and model ideas using a range of strategies eg computer-aided-design, cross-sectional and exploded diagrams
- Use research to inform design and generate own design criteria
- Communicate, generate and develop ideas, drawing on other disciplines eg science, maths, computing
- Confidently take calculated risks to become innovative, resourceful and enterprising

Year 6

- Communicate, generate and develop ideas, drawing on other disciplines eg science, maths, computing
- Use research to inform innovative design and generate own design criteria
- Confidently take calculated risks to become innovative, resourceful and enterprising



Cooking & Nutrition

Intent (Standardised Objectives)

Year 1

- Begin to understand where food comes from
- Prepare simple dishes using knowledge of healthy food

Year 2

- Use basic principles of a healthy and varied diet to prepare dishes
- Understand where food comes from

Year 3

- Apply principles of a healthy, varied diet when preparing variety of savoury dishes
- Apply understanding of seasonality and its link to ingredients

Year 4

- Know where and how a variety of ingredients is grown, reared, caught and processed

Year 5

- Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques

Year 6

- Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques
- Know where and how a variety of ingredients is grown, reared, caught and processed and its impact on meal design
- Develop crucial life skill of feeding themselves and others affordably and well