

Year 1 Design Technology Progression in Skills and Knowledge

NC Skills & Knowledge	Pupils not securing learning	Pupils achieving depth in learning
Autumn 1 and 2: Weaving & Textiles: sewing a simple decoration – Under the Sea & Toys - 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. - 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, according to their characteristics - explore and evaluate a range of existing products - evaluate their ideas and products against design criteria		
Spring 3 and 4: Materials and structures – Houses & room models (Hinges) - 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. - evaluate their ideas and products against design criteria		
Summer 5 and 6: Moving Pictures – Insects/Minibeasts - generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology. - 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 and textiles, according to their characteristics - evaluate their ideas and products against design criteria - explore and use mechanisms [for example, levers, sliders, wheels and pivots], in their products		

Food Technology: Fruit salad		
• generate, develop, model and communicate their ideas through talking, drawing and, where appropriate, information and communication technology. • select from and use a range of tools and equipment to perform practical tasks [for example, cutting, chopping and preparing food] • select from and use a wide range of materials and ingredients, according to their characteristics • evaluate their ideas and products against design criteria • use the basic principles of a healthy and varied diet to prepare simple dishes • understand where food comes from		

Year 2 Design Technology Progression in Skills and Knowledge

NC Skills & Knowledge	Pupils not securing learning	Pupils achieving depth in learning
Autumn 1 and 2: Structures – Dinosaurs and Habitats • 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. • 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 • explore and evaluate a range of existing products • evaluate their ideas and products against design criteria • build structures, exploring how they can be made stronger, stiffer and more stable		
Spring 3 and 4: Textiles – Design and sew a simple Puppet • 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. • 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, according to their characteristics • explore and evaluate a range of existing products • evaluate their ideas and products against design criteria		

Summer 5 and 6: Wheels, axels & Winding mechanisms – Castles • 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. • 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 and construction materials, according to their characteristics • explore and evaluate a range of existing products • evaluate their ideas and products against design criteria • explore and use mechanisms [for example, wheels, axles and winding mechanisms], in their products		
Food Technology: Design a Heathy Food Plate • design purposeful, functional, appealing products for themselves and other users based on design criteria • generate, develop and communicate their ideas through talking, drawing and, where appropriate, information and communication technology. • select from and use a range of tools and equipment to perform practical tasks [for example, cutting, chopping and peeling] • select from and use a wide range of materials and components, including ingredients, according to their characteristics • explore and evaluate a range of existing products • evaluate their ideas and products against design criteria • use the basic principles of a healthy and varied diet to prepare dishes • understand where food comes from		

Year 3 Design Technology Progression in Skills and Knowledge

NC Skills & Knowledge	Pupils not securing learning	Pupils achieving depth in learning
Autumn 1 and 2: Textiles, sewing a pencil case or purse • 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 • 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 • 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		
Spring 1 and 2: Photo frames • 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 • 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 • 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 • apply their understanding of how to strengthen, stiffen and reinforce more complex structures		

Summer 1 and 2: Moving story books – pins pivots and levers		
• 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 • 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 • 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 and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]		
Food Technology: Sandwiches		
• 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 • 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 • 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 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		

Year 4 Design Technology Progression in Skills and Knowledge

NC Skills & Knowledge	Pupils not securing learning	Pupils achieving depth in learning
Autumn 1 and 2: Light up signs – materials and circuits • 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 • 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 • 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 • apply their understanding of how to strengthen, stiffen and reinforce more complex structures • understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] • apply their understanding of computing to program, monitor and control their products		
Spring 1 and 2: Moving Insects - pneumatics • 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 • 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 their ideas and products against their own design criteria and consider the views of others to improve their work • understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]		

Summer 1 and 2: Bridges – cutting, joining and strengthening • 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 • evaluate their ideas and products against their own design criteria and consider the views of others to improve their work • apply their understanding of how to strengthen, stiffen and reinforce more complex structures		
Food Technology: Biscuits • 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 • 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 • 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 • prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques		

Year 5 Design Technology Progression in Skills and Knowledge

NC Skills & Knowledge	Pupils not securing learning	Pupils achieving depth in learning
Autumn 1 and 2: Lighthouses – building tall structures • 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 • evaluate their ideas and products against their own design criteria and consider the views of others to improve their work • apply their understanding of how to strengthen, stiffen and reinforce more complex structures		
Spring 1 and 2: Textiles – sewing and decorating a cushion • 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 • 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 • 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		

Summer 1 and 2: Moving Toys – axels, wheels and cams		
• 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 • 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 • 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 and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]		
Food Technology: Bread		
• 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 • 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 • 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 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		

Year 6 Design Technology Progression in Skills and Knowledge

NC Skills & Knowledge	Pupils not securing learning	Pupils achieving depth in learning
Autumn 1 and 2: Shelters and structures • 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 • 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 • 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 • apply their understanding of how to strengthen, stiffen and reinforce more complex structures		
Spring 1 and 2: Fairground Rides and games • 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 • 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 • 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 • apply their understanding of how to strengthen, stiffen and reinforce more complex structures • understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] • understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]		

Summer 1 and 2: Props, costume and set design (optional unit)		
• 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 • 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 • 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 • apply their understanding of how to strengthen, stiffen and reinforce more complex structures		
Food Technology: Greek Salad		
• 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 • understand where food comes from		