Curriculum Coverage: Design & Technology

				ARE at the end of the year
Year 1	**Autumn**	**Spring**	**Summer**	1. design an appealing product based on design criteria. 2. generate and communicate their idea. 3. use tools and equipment to carry out practical tasks (eg cutting, shaping, joining, finishing). 4. use materials and components (eg construction materials, textiles and ingredients). 5. talk about their own ideas and products against design criteria. 6. build structures, exploring how they can be made stronger and more stable. 7. show they have knowledge, skills and understanding at an age-appropriate level: diet; food origins; food choice; food labelling; food safety. (see Change 4 Life Core Competencies) 8. show they can cut, weigh, measure, bake and use of skills at an age-appropriate level. (see Change 4 Life Core Competencies)
Skills	Design an appealing product based on design criteria. Generate and communicate their idea. Use tools and equipment to carry out practical tasks (eg cutting, shaping, joining, finishing). Use materials and components (eg construction materials, textiles and ingredients). Talk about their own ideas and products against design criteria. Build structures, exploring how they can be made stronger and more stable.	Design an appealing product based on design criteria. Generate and communicate their idea. Use tools and equipment to carry out practical tasks (eg cutting, shaping, joining, finishing). Use materials and components (eg construction materials, textiles and ingredients). Talk about their own ideas and products against design criteria.	Design an appealing product based on design criteria. Generate and communicate their idea. Talk about their own ideas and products against design criteria. Show they have knowledge, skills and understanding at an age-appropriate level: diet; food origins; food choice; food labelling; food safety. (see Change 4 Life Core Competencies) Show they can cut, weigh, measure, bake and use of skills at an age-appropriate level. (see Change 4 Life Core Competencies)	
Topics	Structures	Creating Toys	Cooking/nutrition	

Year 2	Autumn	Spring	Summer
Skills	Design a purposeful, functional, appealing product for a specific user based on design criteria. Develop and communicate their ideas. Choose and use a range of tools and equipment to carry out practical tasks (eg cutting, shaping, joining, finishing). Choose and use a range of materials and components (including construction materials, textiles and ingredients). Evaluate their own ideas and products against design criteria. Evaluate the existing products of other people. Build structures, exploring how they can be made stronger, stiffer and more stable. Explore and use mechanisms in their products (eg levers, sliders, wheels, axles). Show they have knowledge, skills and understanding at an age- appropriate level: diet; food origins; food choice; food labelling; food safety. (see Change 4 Life Core Competencies) Show they can cut, weigh, measure, bake and use of skills at an age-appropriate level. (see Change 4 Life Core Competencies)		Design a purposeful, functional, appealing product for a specific user based on design criteria. Develop and communicate their ideas. Choose and use a range of tools and equipment to carry out practical tasks (eg cutting, shaping, joining, finishing). Choose and use a range of materials and components (including construction materials, textiles and ingredients). Evaluate their own ideas and products against design criteria. Evaluate the existing products of other people.
Topics	Vehicles Food – Healthy Diet		Seaside Puppets

1. design a purposeful, functional, appealing product for a specific user based on design criteria.
2. develop and communicate their ideas.
3. choose and use a range of tools and equipment to carry out practical tasks (eg cutting, shaping, joining, finishing).
4. choose and use a range of materials and components (including construction materials, textiles and ingredients).
5. evaluate their own ideas and products against design criteria.
6. evaluate the existing products of other people.
7. build structures, exploring how they can be made stronger, stiffer and more stable.
8. explore and use mechanisms in their products (eg levers, sliders, wheels, axles).
9. show they have knowledge, skills and understanding at an age- appropriate level: diet; food origins; food choice; food labelling; food safety. (see Change 4 Life Core Competencies)
10. show they can cut, weigh, measure, bake and use of skills at an age-appropriate level. (see Change 4 Life Core Competencies)

Year 3	Autumn	Spring	Summer
Skills	Use existing products and design criteria to help them design a purposeful, functional, appealing product for a specific user. Generate, develop and communicate their ideas using sketches. Use a wider range of tools and equipment to perform practical tasks (eg cutting, shaping, joining, finishing). Show they have knowledge, skills and understanding at an age- appropriate level: diet; food origins; food choice; food labelling; food safety. (see Change 4 Life Core Competencies) Show they can cut, weigh, measure, bake and use of skills at an age-appropriate level. (see Change 4 Life Core Competencies)	Use existing products and design criteria to help them design a purposeful, functional, appealing product for a specific user. Generate, develop and communicate their ideas using sketches. Use a wider range of tools and equipment to perform practical tasks (eg cutting, shaping, joining, finishing). Investigate and evaluate the existing products of other people. Evaluate their ideas and products against design criteria and consider how they can improve their work.	Use existing products and design criteria to help them design a purposeful, functional, appealing product for a specific user. Generate, develop and communicate their ideas using sketches. Use a wider range of tools and equipment to perform practical tasks (eg cutting, shaping, joining, finishing). Investigate and evaluate the existing products of other people. Evaluate their ideas and products against design criteria and consider how they can improve their work.
Topics	Create Fruit Salad – Food & Hygiene Instructions	European Landmarks	Information leaflets

1. use existing products and design criteria to help them design a purposeful, functional, appealing product for a specific user.
2. generate, develop and communicate their ideas using sketches.
3. use a wider range of tools and equipment to perform practical tasks (eg cutting, shaping, joining, finishing).
4. choose and use a range of materials and components (including construction materials, textiles and ingredients) according to their properties.
5. investigate and evaluate the existing products of other people.
6. evaluate their ideas and products against design criteria and consider how they can improve their work.
7. begin to understand and use electrical systems in their products (eg circuits incorporating bulbs, buzzers and motors).
8. show they have knowledge, skills and understanding at an age- appropriate level: diet; food origins; food choice; food labelling; food safety. (see Change 4 Life Core Competencies)
9. show they can cut, weigh, measure, bake and use of skills at an age-appropriate level. (see Change 4 Life Core Competencies)

Year 4	Autumn	Spring	Summer
Skills	Research design criteria to inform the design of functional, appealing products that are aimed at a particular audience. Generate, develop and communicate their ideas through discussion and annotated sketches. Select from and use a wider range of tools and equipment to perform practical tasks. (eg cutting, shaping, joining, finishing) Evaluate their ideas and products against design criteria and consider the views of others to improve their work.	Research design criteria to inform the design of functional, appealing products that are aimed at a particular audience. Generate, develop and communicate their ideas through discussion and annotated sketches. Choose and use a wider range of materials and components (including construction materials, textiles and ingredients) according to their properties. Evaluate their ideas and products against design criteria and consider the views of others to improve their work.	Research design criteria to inform the design of functional, appealing products that are aimed at a particular audience. Generate, develop and communicate their ideas through discussion and annotated sketches. Investigate and analyse similar existing products. Evaluate their ideas and products against design criteria and consider the views of others to improve their work.
Topics	Roman Shield	Egyptian Jewellery	Toy Packaging

1. research design criteria to inform the design of functional, appealing products that are aimed at a particular audience.
2. generate, develop and communicate their ideas through discussion and annotated sketches.
3. select from and use a wider range of tools and equipment to perform practical tasks. (eg cutting, shaping, joining, finishing)
4. choose and use a wider range of materials and components (including construction materials, textiles and ingredients) according to their properties.
5. investigate and analyse similar existing products.
6. evaluate their ideas and products against design criteria and consider the views of others to improve their work.
7. understand and use electrical systems in their products (eg series circuits, incorporating switches, bulbs, buzzers and motors).
8. show they have knowledge, skills and understanding at an age- appropriate level: diet; food origins; food choice; food labelling; food safety. (see Change 4 Life Core Competencies)
9. show they can cut, weigh, measure, bake and use of skills at an age-appropriate level. (see Change 4 Life Core Competencies)

Year 5	Autumn	Spring	Summer
Skills	Research design criteria to inform the design of functional, appealing products that are fit for purpose, aimed at a particular audience. Select from and use a wider range of tools and equipment to perform practical tasks. (eg cutting, shaping, joining, finishing) Select from and use a wider range of materials and components (including construction materials, textiles and ingredients) according to their functional properties. Begin to apply their understanding of computing to program their products.	Research design criteria to inform the design of functional, appealing products that are fit for purpose, aimed at a particular audience. Select from and use a wider range of materials and components (including construction materials, textiles and ingredients) according to their functional properties. Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. Show they have knowledge, skills and understanding at an age- appropriate level: diet; food origins; food choice; food labelling; food safety. (see Change 4 Life Core Competencies) Show they can cut, weigh, measure, bake and use of skills at an age-appropriate level. (see Change 4 Life Core Competencies)	Research design criteria to inform the design of functional, appealing products that are fit for purpose, aimed at a particular audience. Generate, develop and communicate their ideas through discussion, annotated sketches and cross-sectional diagrams. Select from and use a wider range of tools and equipment to perform practical tasks. (eg cutting, shaping, joining, finishing) Select from and use a wider range of materials and components (including construction materials, textiles and ingredients) according to their functional properties. Investigate and analyse existing products. Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. Understand how individuals in design and technology have helped make our lives easier. Begin to use mechanical systems in their products (eg gears, pulleys, cams, levers and linkages).
Topics	Victorian Decoupage	Cooking – Healthy Eating	Viking Longboats Moving Toys

1. research design criteria to inform the design of functional, appealing products that are fit for purpose, aimed at a particular audience.
2. generate, develop and communicate their ideas through discussion, annotated sketches and cross-sectional diagrams.
3. select from and use a wider range of tools and equipment to perform practical tasks. (eg cutting, shaping, joining, finishing)
4. select from and use a wider range of materials and components (including construction materials, textiles and ingredients) according to their functional properties.
5. investigate and analyse existing products.
6. evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.
7. understand how individuals in design and technology have helped make our lives easier.
8. begin to use mechanical systems in their products (eg gears, pulleys, cams, levers and linkages).
9. begin to apply their understanding of computing to program their products.
10. show they have knowledge, skills and understanding at an age-appropriate level: diet; food origins; food choice; food labelling; food safety. (see Change 4 Life Core Competencies)
11. show they can cut, weigh, measure, bake and use of skills at an age-appropriate level. (see Change 4 Life Core Competencies)

Year 6	Autumn	Spring	Summer
Skills			
Topics			

- research and develop design criteria to inform the design of innovative, functional appealing products that are fit for purpose, aimed at particular individuals and groups.
- generate, develop and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes and computer-aided design.
- select from and use a wider range of tools and equipment to perform practical tasks. (eg cutting, shaping, joining, finishing)
- 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 how key events and individuals in design and technology have helped change the world.
- apply their understanding of computing to program, monitor and control their products.
- understand and use mechanical systems in their products (eg gears, pulleys, cams, levers and linkages).
- show they have knowledge, skills and understanding at an age-appropriate level: diet; food origins; food choice; food labelling; food safety. (see Change 4 Life Core Competencies)
- show they can cut, weigh, measure, bake and use of skills at an age-appropriate level.