

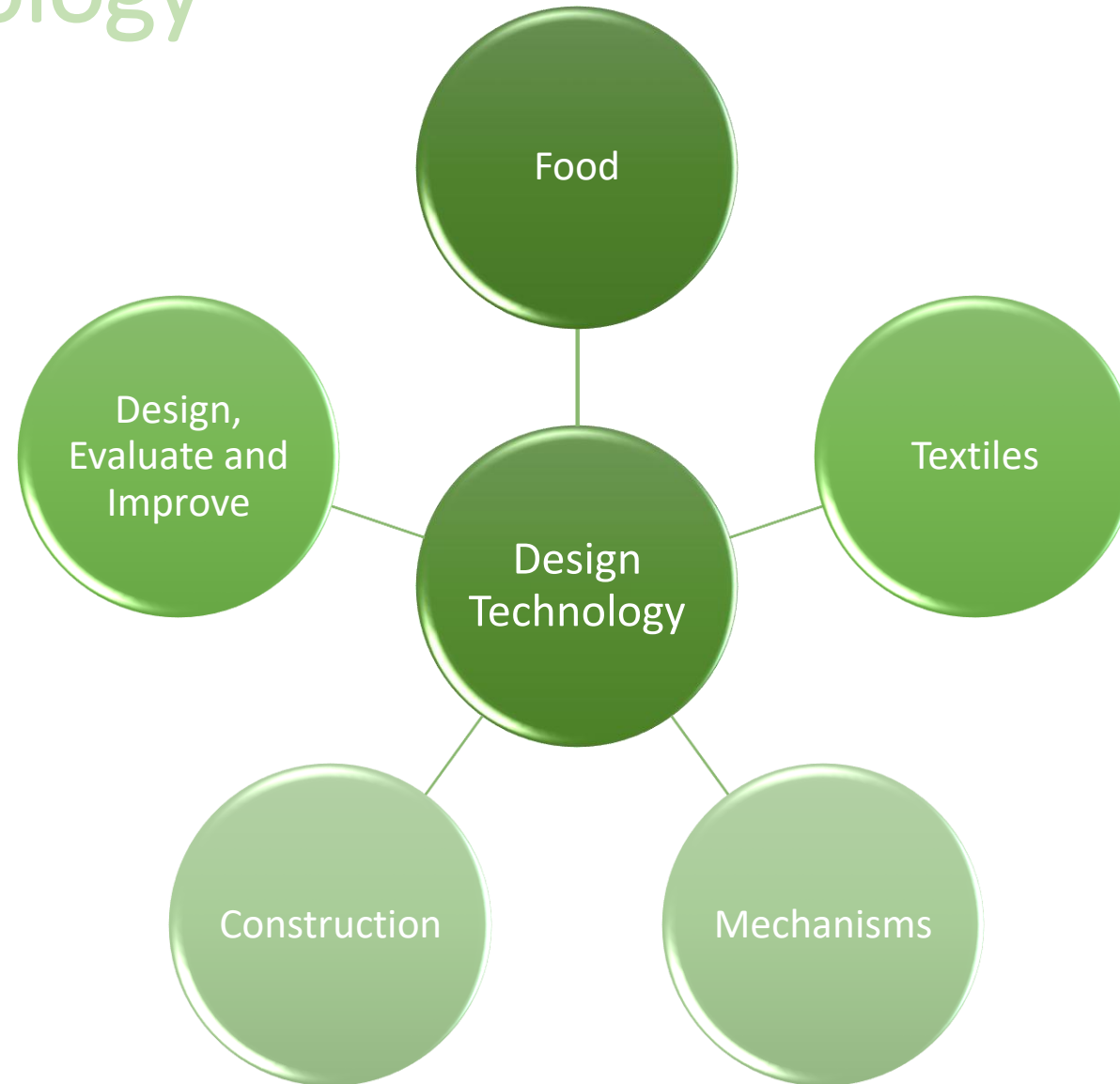
Design Technology Content Spine

	Autumn	Spring	Summer
Year 3	<p>Concept: Construction Outcome: Flood-proof house</p>	<p>Concept: Textiles Outcome: Making a sandal</p>	<p>Concept: Cooking Outcome: Seasonal fruit smoothie (3 lessons)</p> <p>Concept: Mechanisms Outcome: Card with levers and linkages (2 lessons)</p>
Year 4	<p>Concept: Textiles Outcome: Eco – pencil case (4 lessons)</p> <p>Concept: Electrical Mechanisms Outcome: Light up Christmas card (2 lessons)</p>	<p>Concept: Mechanisms Outcome: Pneumatic creatures</p>	<p>Concept: Cooking Outcome: Vegan Chilli and herby garlic flat breads</p>
Year 5		<p>Concept: Construction Outcome: Bird Boxes (3 lessons)</p>	<p>Concept: Cooking Outcome: Healthy seasonal snack (2 lessons)</p> <p>Concept: Construction Outcome: Slo – mo marble run</p>
Year 6	<p>Concept: Mechanisms (including electrical) Outcome: Circuits and cars</p>	<p>Concept: Cooking Outcome: Seasonal Minestrone Soup</p>	<p>Concept: Textiles Outcome: Durable travel bag</p>



Design Technology

Key Concepts



Design Technology Progression Map – Design, Evaluate and Improve

Year 3

- explain the strengths and weaknesses of existing products
- generate ideas and recognise that designs meet criteria
- plan for appropriate tools, materials and techniques
- identify where evaluations have led to improvements
- draw a cross-sectional diagram of my design
- evaluate work against design criteria

Year 4

- think about the order of work, using appropriate techniques
- clarify ideas using labelled sketches and models
- identify what is working well and what can be improved
- create a design criteria based on existing products and intended users
- evaluate work against own design criteria

Year 5

- generate ideas by collecting and using information
- take the views of users' account when designing
- produce step-by-step plans
- communicate ideas using words, labelled sketches and models
- reflect on designs and develop them bearing in mind use
- create annotated sketches and cross-sectional diagrams

Year 6

- draw on various sources of information to generate designs
- use an understanding of familiar products to develop ideas
- work from detailed plans, modifying them as appropriate
- create a prototype of my design
- clarify ideas through discussion, drawing and modelling
- test and evaluate products, based on the original design and purpose

Design Technology Progression Map – Food

Year 3

- choose the most appropriate tools and ingredients to make a product.
- create a product with a good finish so that a user will find it attractive as well as tasty
- understand seasonality and know where and how ingredients are grown
- know how to use different equipment correctly and safely

Year 4

- come up with solutions to problems as they happen
- create a product with a good finish so that a user will find it attractive as well as tasty
- make a product that has been cooked or grilled to change the nature of raw ingredients
- choose appropriate ingredients to meet the requirements of the recipe
- understand seasonality and know where and how ingredients are grown, reared, caught and processed

Year 5

- use a range of appropriate tools effectively to make a product.
- Understand how to pick seasonal ingredients.
- create a food product which uses a selection of seasonal ingredients and to meet an identified need
- know that not all food has been grown, reared, caught or processed in the UK

Year 6

- use a range of appropriate tools effectively to make a product
- understand that cooking alters the flavor and texture of foods
- use scientific knowledge of micro-organisms to store and prepare food properly
- prepare and cook a healthy meal, using a range of cooking techniques



Design Technology Progression Map – Mechanisms

Year 3

- Select the most appropriate techniques and tools to make a product.
- Make a product which has mechanical components.
- Know the application of mechanisms to create movement.
- Come up with solutions to problems as they happen.
- Use art skills to apply texture or design to a product.

Year 4

- Select the most appropriate techniques and tools to make a product.
- Know the application of mechanisms to create movement.
- Come up with solutions to problems as they happen.
- Make a product that uses mechanical components.
- Create a product which has a good finish so that a user will find it both useful and attractive.
- Combine a number of components well in a product.
- Use art skills to add detail to their finished product.

Year 5

- No content

Year 6

- Choose components that can be controlled by switches.
- Improve a product after testing.
- Understand and use electrical systems in my product e.g. Circuits incorporating switches, bulb, buzzers and motors.
- Use mechanical systems in my products including gears, pulleys, cams, levers and linkages.
- Finish a product well using a range of art and other finishing techniques.
- Use other DT skills to create housings for mechanical components.
- Investigate, analyse and evaluate existing products that incorporate gears or pulley levels.



Design Technology Progression Map – Textiles

Year 3

- combine materials to add strength or visual appeal
- use sharp scissors accurately to cut textiles.
- understand how to securely join two pieces of fabric together

Year 4

- Make choices on fabric based on their properties to suit a purpose.
- understand the need for patterns and seam allowances
- know and use technical vocabulary relevant to the project
- use back stitch and cross stitch

Year 5

- No content

Year 6

- know that a 3D textile product can be made from a combination of accurately made pattern pieces, fabric shapes and different fabrics
- understand that fabrics can be strengthened, stiffened and reinforced where appropriate
- textile work incorporates the views of intended users and for the purpose
- use art skills to help create a product that is attractive
- use blanket stitch to join textiles

Design Technology Progression Map – Construction

Year 3

- use the most appropriate material suitable for the purpose of a product
- describe the qualities of a material and say why it is the most suitable choice
- make a product carefully, using techniques and tools safely
- join materials using both permanent and temporary fastenings
- Ensure products have a goof overall finish.
- use art skills to add detail to a product

Year 4

- No content

Year 5

- be accurate and safe in their use of tools and show precision in cutting, stiffening and stabilising constructions
- make holes and cuts accurately, rejecting pieces that are inaccurate
- use suitable materials selected for the purpose of a product
- apply a high-quality finish (e.g. using carving, paint, varnish or other finishes)
- create joins which are strong and stable, giving extra strength to products

Year 6

- No content

