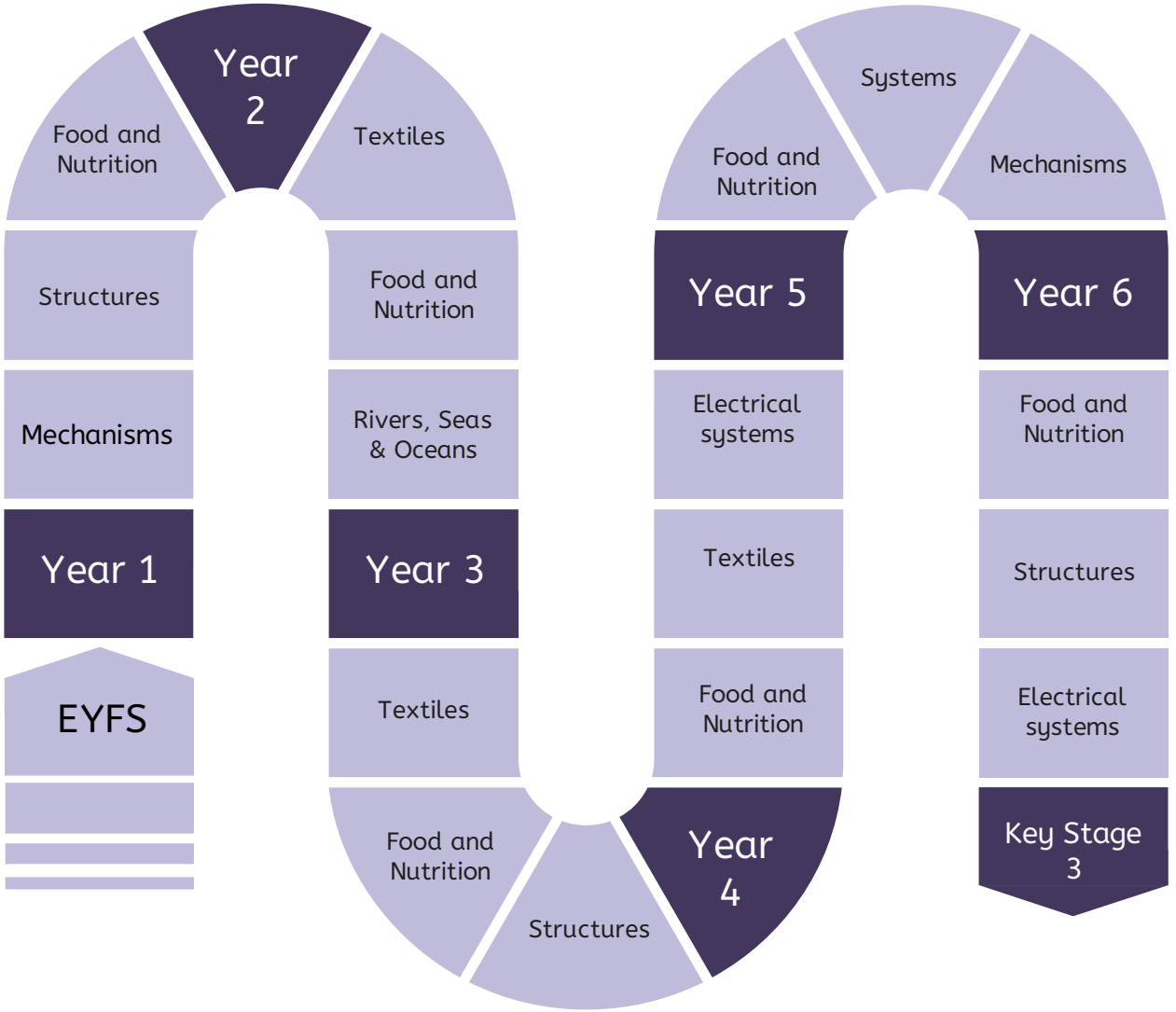
Design and Technology



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	Year 1	Year 2
Autumn	**Mechanisms: Sliders and levers** How can you make a picture move? • Know common uses of sliders • Know different methods to create card sliders • Know how sliders can create simple mechanisms • Be able to design and make a slider product • Be able to evaluate the success of their outcomes and recommend improvements	**Textiles: Exploring shape using a template** How can you repurpose an item of clothing? • Know how to cut out shapes which have been created by • using a template • Know how to use a range of basic sewing skills • Be able to use a template to transfer a pattern • Be able to cut out and join fabric shapes using a template
Spring	**Structures: Freestanding structures** How can you stop a tower from toppling over? • Know a freestanding structure is a structure that stands on its own foundation or base without attachment to anything else • Be able to build structures that are freestanding using a range of different materials	**Food and Nutrition: Nutrients and the body** What does healthy mean? • Know why vegetables are so important to our health • Know what processed foods are • Be able to prepare a range of salad vegetables • Be able to shape and season a bread snack
Summer	**Food and Nutrition: Exploring food senses** How does food affect your senses? • Know why colourful food can be healthier • Know how different foods can affect senses • Be able to peel, chop and grate a selection of vegetables • Be able to modify food to suit food senses	**Mechanisms: Axles and wheels** Are bigger wheels always better? • Know how wheels and axles work together • Know the size and position of wheels affects how they move • Be able to create a simple wheel mechanism • Be able to use wheel mechanisms to propel a simple vehicle

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	Year 3	Year 4
Autumn	**Textiles: Stiffening and strengthening fabric** How can you make a box out of cloth? • Know fabric can be stiffened • Know stiffened fabric can hold a form • Be able to select and apply solutions to stiffen fabric • Be able to make a box using stiffened fabric	**Food and Nutrition: Ultra-processed food** What's really in your food? • Know processed foods have many added ingredients • Be able to make, roll and shape bread dough • Be able to make a soup
Spring	**Food and Nutrition: Individual diets** What do we mean by a balanced diet? • Know what is meant by the term balanced • Know why fresh foods are better • Be able to make a fruit and yoghurt dessert • Be able to make homemade chips • Be able to flavour foods to increase their sensory qualities	**Textiles: Fixings and fastenings** How do you keep a tea towel from slipping off a hook? • Know fastenings have different functions • Know a shank provides a small amount of space between the button and fabric • Be able to select appropriate fastenings and attach them to fabric • Be able to make a shank for a button
Summer	**Structures: Spanning gaps** What makes a bridge strong? • Know bridges are structures that allow people and vehicles to cross over an open space • Know towers, piers and arches provide strength to a bridge • Be able to design and build a beam bridge that can hold the weight of 100 pennies • Be able to identify and name parts of a bridge	**Electrical Systems: Switches and circuits revisited** How useful are switches? • Know a switch is an interruption in a circuit • Know switches are widely used in a range of products • Be able to incorporate different types of switches into circuits to perform a function

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	Year 5	Year 6
Autumn	**Food and Nutrition: Food choices** Why are our diets so different? • Know some foods and key ingredients from other cultures • Know how other cultures' food can be nutritious • Be able to make, roll and cook a flatbread • Be able to prepare a range of vegetables • Be able to present foods to a high standard	**Food and Nutrition: Multicultural influences on food** Can street foods save us? • Know what street foods are • Know how snacks can be good foods to eat • Be able to make a burrito • Be able to make and roll bread dough • Be able to make a savoury pastry
Spring	**Systems: Using technology to design and control** How can we keep ourselves safe on the road? • Know technology can be used to program and control a product • Be able to combine elements of their design knowledge to fulfil a brief	**Structures: Developing structures that are fit for purpose** How are frames strengthened, reinforced and made rigid? • Know engineers use a range of methods to strengthen and reinforce structures • Be able to identify and describe ways that frames are strengthened and reinforced
Summer	**Mechanisms: Pulleys and gears - transferring rotational force** How can you lift a car onto a roof? • Know types of gears and terminology relating to gears • Know common uses of pulleys and gears • Know how pulleys and gears can change the direction of movement • Be able to design and make products that use pulleys and gears to lift loads • Be able to evaluate the success of outcomes and recommend improvements	**Electrical Systems: Complex switches and circuits** Can switches perform more than one function? • Know more than one switch can be used to change the functionality of a product • Be able to use switches to adapt a product in response to a design brief