



Wilbury Design and Technology Overview - Composite Knowledge

	Autumn	Spring	Summer
EYFS	Can we explore and use a range of materials, tools (including scissors, hammers and saws) and techniques safely?		
	Can we experiment with colour, design, texture, form and function?		
	Why is it important to make healthy food choices? Where do vegetables come from?		
Year 1	<u>Mechanisms - sliders and levers</u> <u>Project – making a moving image</u> - What is a slider? What is a lever? Which part of the mechanism is a pivot?	<u>Food - preparing fruit and veg, provenance</u> <u>Project – fruit salad</u> - What is a balanced diet? - Why is it good to eat a balanced diet? What do we need to do before we can eat fruit and veg? Where do fruit and vegetables come from?	<u>Structures - freestanding structures</u> <u>Project – making a greenhouse</u> What is a freestanding structure? - How can we stop freestanding structures from falling over? How can we make a structure stronger, stiffer and more stable?
Year 2	<u>Textiles - templates and joining</u> <u>Project - bunting</u> What is a template? - How can we join fabric? How can we decorate fabric? - What different types of fabric are there?	<u>Food - preparing fruit and veg, seasonality and provenance</u> <u>Project - smoothies</u> - What is a balanced diet? Why is it good to eat a balanced diet? - What do we need to do before we can eat fruit and veg? - Where do fruit and vegetables come from? Which fruits and vegetables grow in the different seasons?	<u>Mechanisms - wheels and axles</u> <u>Project – make a moving model car</u> What is an axle? - What is a chassis? How do wheels and axles work together to help things move?
Year 3	<u>Textiles – templates, joining, embellishing</u> <u>Project – making a bag</u> - What is a template? How can we securely join two pieces of fabric together? - How can we strengthen, stiffen and reinforce existing fabrics? How can we embellish/decorate fabric?	<u>Food - healthy and varied diet, provenance</u> <u>Project – making flapjacks</u> What is a balanced diet? - Where do different types of food come from? - What equipment and resources do we need to use to combine and prepare food? How can we prepare food hygienically? - Why do we follow instructions when cooking? - How can we prepare food safely?	<u>Structures - shell structures</u> <u>Project – making a party box</u> - What is a shell structure? What is a net? - How can we construct strong, stiff shell structures? How can we use a net to effectively make a 3D shape? - How can we join a net together to make a 3D shape?



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Year 4	<u>Mechanisms – sliders, levers and linkages</u> <u>Project – making a moving story</u> • What do you think will move and how? • Which part of the system is the input? • Which part of the system is the output? • Where are the fixed/loose pivots?	<u>Structures - shell structures</u> <u>Project – making a biscuit packet</u> • What is a shell structure? • How can we join our shell structure? • What is triangulation and how does it help? • What makes an effective packet for the product? • What are the purposes of packaging?	<u>Food - healthy and varied diet, provenance</u> <u>Project – making bread rolls</u> • What is a balanced diet? • Where do different types of food come from? • What equipment and resources do we need to use to combine and prepare food? • How can we prepare food hygienically? • Why do we follow instructions when cooking? • How can we prepare food safely?
Year 5	<u>Structures - frame structures</u> <u>Project –making a wooden bridge</u> • What is a frame structure? • How can we join our frame structure? • What is triangulation and how does it help? • How can we make a strong frame structure? • What are frame structures used for?	<u>Food - provenance, seasonality</u> <u>Project – making mini pizzas</u> • Where do different types of food come from? • What are culture and seasonality? • What techniques can we use to prepare food? • How do we understand the nutritional value of a product? • What functions do different utensils have? • How can we prepare food hygienically? • How can we prepare food safely?	<u>Textiles - combining different fabric shapes</u> <u>Project - card wallet/phone case</u> • How can we combine different fabric shapes? • What impact have different designers had on fabrics and products? • How can we adapt stitches for purpose? • How can we strengthen/stiffen a product? • How can we embellish/decorate fabric?
Year 6	<u>Mechanisms – pulleys and gears</u> <u>Project – fairground attraction</u> • What is a pulley? • What are gears? • How do gears help to change the speed or direction of movement of an object? • What are the inputs, processes, and outputs for a particular object?	<u>Textiles – templates, joining and embellishing</u> <u>Project – making a stuffed toy</u> • How can we create and use a template? • How can we combine different fabric shapes? • What impact have different designers had on fabrics and products • How can we adapt stitches for purpose? • How can we strengthen/stiffen a fabric? • How can we embellish/decorate fabric?	<u>Food – provenance, seasonality</u> <u>Project – making a seasonal salad</u> • Where do different types of food come from? • What are culture and seasonality? • What techniques can we use to prepare food? • How do we understand the nutritional value of a product? • What functions do different utensils have? • How can we prepare food hygienically? • How can we prepare food safely?