Our Lady and St Patrick's Catholic Nursery and Primary School

Curriculum Flight Path: Design and Technology

Mechanical systems and structures

<mark>Food</mark>

Textiles

Theme 1	Curriculum Flight Path Year A			
	EYFS	KS1	Year 3/4	Year 5/6
Theme (overarching e.g Tudors) Mechanical Systems	Construction	Mechanisms Yr1 Sliders and levers	Mechanical Systems (Y3) Levers and linkages	Mechanical/Structures/ (y6) Pulleys or gears/
Question (based on specific components of knowledge and	What is construction?	Will you use a lever or a slider?	How can we create movement by manipulating the different mechanical systems?	What is the input, process and output?
Vocabulary (progressive – so what are the new words?)	Make, build	slider, lever, pivot, slot, bridge/guide,	linkage, system, input, process, output	drive belt, rotation, spindle, driver, follower, ratio, transmit,
Theme 2	Curriculum Flight Path Year A			
	EYFS	KS1	Year 3/4	Year 5/6
Theme (overarching e.g Tudors) Food preparation- making	Talk about balanced diet / try different fruits	Preparing fruit and veg (y1)	Healthy and varied diet (Y3) Eat well plate/ net for packaging Design and make a healthy for	Celebrating culture and seasonality*
Question (based on specific components of knowledge and	Can we try a fruit we have never tried before?	How do we get food ready to eat?	What makes a balanced plate of food?	How can food be a vital part of celebrating culture?
Vocabulary (progressive – so what are the new words?)	Taste - sweet, salty, sour Smell - strong	Healthy Taste adjectives - juicy, squishy, sour, sweet, soft, hard, ingredients recipe	purpose healthy/varied diet, packaging, hygienic, frozen, tinned, processed, seasonal, harvested, Taste adjectives - plain, bland, sweet, sugary e	Fair Trade National Global Trade aroma
Theme 3	Curriculum Flight Path Year A			
	EYFS	KS1	Year 3/4	Year 5/6

Theme (overarching e.g Tudors) Mechanisms	Mechanisms wheels and axis (Yr2) including electrical circuit	Electrical Systems (y4) Simple circuits and switches (including programming control)	Electrical moving item (y5) Electrical Systems/CAD More complex switches and circuits (including programming, monitoring and control)
Question (based on specific components of knowledge and	Why do you think the wheels are round?	What would happen if I experiment with the different elements of the circuit?	How and why is a computer control program used to operate the products?
Vocabulary (progressive – so what are the new words?)	vehicle, wheel, axle, axle holder, chassis, body, cab assembling, , fixed, free, moving, mechanism Circuit. Wire, bulb, battery	Strut, gear, cam, product linear, rotary, oscillating, reciprocating series circuit, fault, connection, toggle switch, push-to-make switch, push-to-break switch, control, program, system, input device, output device	reed switch, light dependent resistor (LDR), tilt switch, light emitting diode (LED), USB cable, t device, output device, series circuit, parallel circuit, sensor

Theme 1	Curriculum Flight Path Year B			
	EYFS	KS1	Year 3/4	Year 5/6
Theme (overarching e.g Tudors)	Textiles- choosing tools to have effect-	Templates and joining techniques (y2)	2d to 3d shape (y3) use computer aided program	Textiles Combining different fabric shapes

				(including computer-aided design) (y5)
Question (based on specific components of knowledge and	Can we choose the right tools for the job?	How will it be joined and finished?	How can you stiffen your fabric?	How can different fabric shapes be combined to produce something unique?
		Why is a template helpful?	What if I wanted to change 2D shape into 3D shape?	
Vocabulary (progressive – so what are the new words?)	Make, material, change	template, pattern pieces, mark out, decorate, finish, fabric, Running stitch, staple	Slot, back stitch, chain stitch,	Printing block, design, applique
Theme 2		Curriculum Fli	ght Path Year B	
	EYFS	KS1	Year 3/4	Year 5/6
Theme (overarching e.g Tudors)	Begin to build structures inside and out	Freestanding structures (y1)	Structures (Y3) Shell structures	Woodwork/Moving Cams (y5) Moving toy
Structure			(including computer-aided design) (Photo frames)	
Question (based on specific components of knowledge and	What can I build?	How can you stop your structures from falling over? What if I had to build a	Can I use different joins to make the best structure?	How do I make a moving?
		structure that could stand up on its own?		
Vocabulary (progressive – so what are the new words?)	Balance, effect, change	cut, fold, join, fix structure, weak, strong, base, thinner, thicker, corner, point, straight, curved, metal, wood, plastic	Innovative, functional, strut, dowel join, butt join	drive belt, rotation, spindle, driver, follower, ratio, transmit,
Theme 3	Curriculum Flight Path Year B			
	EYFS	KS1	Year 3/4	Year 5/6
Theme (overarching e.g Tudors)	Germs Importance of Hygiene and being healthy	Preparing fruit and veg (y2)	Healthy and varied diet(y4)	Cooking (y6) Celebrating culture and
Nuturition	,			seasonality

Question (based on specific components of knowledge and	Why do we need to remember to wash our hands?	How do you use tools safely?	What do you need to consider to make it part of a balanced diet?	How does a menu take into account seasonal products?
			What can we create to show that we understand a healthy and varied diet?	
Vocabulary (progressive – so what are the new words?)	Germs/bacteria, Clean Dirty, Mouldy, hungry	'The Eat well plate', Nutrition Farmed, Grown, diet, portion	Processed, Irreversible Reared, Carbohydrate Protein, Fat, Dairy Oil, Meat, Grown Seasonality	fat, sugar, carbohydrate, protein, vitamins, nutrients, nutrition, healthy, varied, gluten, dairy, allergy, intolerance, savoury, source, seasonality