Design Technology Progression

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Early Years	Work will be planned around the following 7 areas of learning: Personal Social and Emotion Development, Physical Development, Communication and Language, Literacy, Mathematics, Understanding of the World and Expressive arts and Design					
Year 1	**The Place we live in**		**Food glorious food**		**I do like to be beside the seaside**	
Project	Homes (structures) Design and build a home		Cooking and nutrition Wraps and Sandwiches		Moving seaside picture (mechanisms) Design and construct a moving picture	
Links to prior learning	EYFS-Begin to build structures with a range of materials		EYFS-develop a food vocabulary using taste, smell, texture and feel - begin to understand variety		EYFS-incorporate moving parts in to models. For example, use split pins to make body parts move Term 1 Homes – using hinges	
Skills	• assemble, join and combine materials and components – use hinges in models		• peeling using a peeler • cutting (claw and bridge method) • mixing • spreading butter onto bread		• construct simple mechanisms – levers and sliders	
Knowledge	• explore and understand how freestanding structures can be made stronger, stiffer and more stable		• understand where food comes from – plants/animals • identify the 5 food groups of The Eatwell Plate • name and sort food into the 5 groups of The Eatwell Plate		• explore and use simple mechanisms for example, sliders in moving pictures and hinges into models to create movement	
Vocabulary	build, join, construct, strong, stiff, stable, hinge		variety, smell, texture, taste, grown, plants, animals, food groups, Eatwell Plate, peeling, chopping, mixing, spreading		mechanism, levers, sliders, hinges, movement	
Year 2	**The lady with the lamp**		**Terrific transport**		**Our amazing planet**	
Project	Cooking and nutrition Dips and Salads		Vehicles (mechanisms) Design and build a moving vehicle		Fabric Faces (textiles) Design and create a 3D fabric faces	
Links to prior learning	Yr1 – build on chopping, peeling and mixing skills Build on where food comes from grown/animals		Yr1 – understand that mechanisms create movement		EYFS-Weave materials to create patterns Begin to use a running stich using large needles and hessian	
Skills	• chopping (claw and bridge) • peeling using a peeler • grating • measuring		• construct wheels and axles		• cut out shapes which have been created by drawing round a template onto the fabric • learn how to sew and join fabrics using a running stitch	
Knowledge	• understand how food is produced farmed/grown/caught • understand that we should aim to eat 5 portions of fruit and veg a day		• explore and use simple mechanisms such as wheels and axles to create movement		• understand that a 3-D textiles product can be assembled from two identical fabric shapes	
Vocabulary	cutting, peeling, grating, savoury, sweet, measuring, teaspoons, tablespoons, cups		wheels, axles, chassis, types of vehicles, construct, join, stable		running stitch, sew, needle, eye of the needle, thread, hessian/fabric	

Design Technology Progression

Year 3	Hills, mountains and rivers	Ancient Greece	Neolithic era
Project	Moving Monsters (mechanisms) Design and create a monster/creature that moves using a simple pneumatic mechanism	Cooking and nutrition Biscuits (sweet and savoury)	Shelters (structures) Design and build a model of a shelter for a specific purpose
Links to prior learning	Y2 – (vehicles) create simple mechanisms that create movement	Y2 – build on where food comes from build on cutting, peeling and grating, measuring	Y1 – building structures (homes)
Skills	• measure, mark out, cut and shape materials and components with some accuracy • assemble, join and combine materials and components with some accuracy • create a pneumonic mechanism	• measure and weigh ingredients • follow a recipe • measure/weigh, mix, knead, shape, flavour • adapt a recipe	• make strong, stiff shell structures • make frames reinforcing corners • measure, mark out, cut and shape materials and components with some accuracy • assemble, join and combine materials and components with some accuracy
Knowledge	• investigate how air can produce movement and how this can be used in simple pneumatic mechanisms	• explore a variety of biscuits from around the world • explore – a healthy diet is made up from a variety and balance of different food and drink, as depicted in The Eatwell Plate • explore ways of adapting a recipe	• explore how structures can be made stronger and more stable – use of girders, rafters, struts • explore strong shapes and domes, etc.
Vocabulary	pneumatic, syringe, plastic tubing, connector, pump	knead, shape, adapt, measure, sweet, savoury	shell, dome, strong shapes, reinforce, girders, rafters, struts, beams, force, twisting, stretching,
Year 4	**Our local Area/Natural disasters**	**Ancient Egypt**	**Rotten Romans**
Project	Story books (mechanisms) Create a moving parts story book	Cooking and nutrition Bread	Light up - nightlights (electrical circuits) Design and make a product incorporating a bulb and a switch
Links to prior learning	Y1 – (Moving pictures) Levers and sliders	Y3 – Build on skills developed in year 3 'Biscuits'	Simple circuits - Science
Skills	• measure, mark out, cut and shape materials and components with some accuracy • assemble, join and combine materials and components with some accuracy • create movement with levers, linkages, pop outs, windows, rotating wheels, ect.	• measure and weigh ingredients • follow a recipe • measure/weigh, mix, knead, shape, flavour • adapt a recipe	• construct simple circuits incorporating a bulb within a product • incorporate a switch or a pressure pad to control the light
Knowledge	• understand how mechanical systems such as levers and linkages create movement	• explore bread from around the world • explore – a healthy diet is made up from a variety and balance of different food and drink, as depicted in The Eatwell Plate • understand the role of yeast in bread • understand the role of kneading and leaving dough to rise (proving)	• understand how simple electrical circuits and components can be used to create functional products • understand that mechanical and electrical systems have an input, process and output
Vocabulary	levers, linkages, pop outs, concertina, rotating, windows, flaps, join, assemble, components	balanced diet, variety, cultural dishes, dough, yeast, proving	circuit, switch, pressure pad, input, output, process

Design Technology Progression

Year 5	Landmarks/Cultural Europe	Anglo Saxons/Vikings	Coasts
Project	Bridges (structures and mechanisms) Design and build a working drawstring bridge	Talking Textiles (textiles) Design and create a tapestry that tells a story	Cooking and nutrition 'Eat like a champ' – 6 sessions Fibre/Energy/Hydration
Links to prior learning	Y3 – shelters (structures) Y4 - Levers/linkages (mechanisms) Science - Forces	Y2 – fabric faces- how to use a running stitch to attach two pieces of material	The Eatwell Plate Yr1/2 Balance diet Yr1-4 Nutrition and hydration
Skills	• accurately measure, mark out, cut and shape materials and components • accurately assemble, join and combine materials and components • use techniques that involve a number of steps	• accurately measure, mark out and cut oyt shapes using fabric. • accurately join and combine fabric/materials using a variety of methods/stitching • tread a needle and tie a knot at the end of a piece of thread	• build upon and use a variety of skills introduce throughout KS1 and KS2
Knowledge	• begin to understand how mechanical systems such as pulleys create movement • design and make a product that incorporates a pulley (drawstring) mechanism	• understand that a 3D textiles product can be made from a combination of fabric shapes – different attaching techniques	• learn about carbohydrates, protein, vitamin C, calcium, fat, and fibre • learn about the importance of staying hydrated learn where our energy comes from, what we need energy for • learning about food labels and packaging • understand the importance of staying active in order to maintain good health
Vocabulary	pulleys, drawstring, forces, construct, beam,girder, arch, truss, abutment, suspension, cantilever	tapestry, running stitch, felt, hessian, layering, attach, cross stitch, template	fibre, vitamins, energy, carbohydrate, hydration, protein
Year 6	**Rainforests/Chocolate**	**Changes over time (exploration)**	**Where we live now and then…**
Project	New Chocolate Bar and Packaging (product design) Design, make and create the packaging for a new chocolate bar	Moving toys (mechanisms) Design and build a moving cam toy	Cooking and nutrition Seasonality
Links to prior learning	Maths – nets Food and nutrition – adapting a recipe Y3/Y4	Y5 – Bridges (mechanisms) Science - forces	All previous year groups
Skills	• design and construct nets for packaging • understand how much products cost to make • understand how innovative products are • understand what impact products have beyond their intended purpose	• accurately measure, mark out, cut and shape materials and components • accurately assemble, join and combine materials and components • use techniques that involve a number of steps	• build upon and use a variety of skills introduce throughout KS1 and KS2
Knowledge	• learn about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products • understand that a recipe can be adapted by adding or substituting one or more ingredients	• develop a greater understanding of how cams, pulleys or gears create movement • create and use prototypes • design and make products with greater independence	• Know when different fruit and vegetables are in season in the United Kingdom • explain where and how a variety of ingredients are grown, reared, caught and processed • generate a range of ideas for balanced seasonal recipes • prepare ingredients hygienically
Vocabulary	advertising, packaging, product, manufacturing, sustainable, testing, substituting	cam, shaft, off-centre cam, peg cam, snail cam, pear cam, follower, spindle	seasonality, availability, processed, balanced

Design Technology Progression