Design & Technology Curriculum Overview

Year	Autumn	Spring	Summer
Early Years	In the EYFS, children are given opportunities to create with materials and be imaginative and expressive through both child-initiated learning and directed learning which often has cross-curricular links. By the end of the EYFS, though Physical Development children will have been given the opportunity to: *Use large-muscle movements to wave flags and streamers, paint and make marks.* *Use one-handed tools and equipment, for example, making snips in paper with scissors.* *Explore how things work.* *Make imaginative and complex 'small worlds' with blocks and construction kits, such as a different city with buildings and a park.* *Explore different materials freely, in order to develop their ideas about how to use them and what to make, e.g through making structures.* *Develop their own ideas and then decide which materials to use to express them.* *Create closed shapes with continuous lines and begin to use these shapes to represent objects.* *Progress towards a more fluent style of moving with developing control and grace.* *Develop their small motor skills so that they can use a range of tools competently, safely and confidently.* *Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor.* *In PSED they will: Create collaboratively; sharing ideas, resources and skills.*		
Reception			
	EAD Birth to 5 matters Range 5: *Uses various construction materials, e.g. joining pieces, stacking vertically and horizontally, balancing, making enclosures and creating spaces* Junk modelling ongoing in CIL Kites on windy days ongoing **Autumn Vegetables and fruit topics:** Supertato story Designing and Making traps for the Evil Pea *Design and using different materials for a purpose.* Oliver's vegetables story: Vegetable soup	***EAD Birth to 5 matters Range 6:*** *Uses tools for a purpose* *Uses their increasing knowledge and understanding of tools and materials to explore* *their interests and enquiries and develop their thinking* *- Share their creations, explaining the process they have used;* Making simple puppets for small role play **Traditional Stories:** 3 Billy Goats Gruff:	**EAD design ELG** *Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form* *and function;* **Traditional stories with Castles:** Construct castles **Healthy Eating and Minibeasts topic:** Cutting and Making a fruit kebab using fruit from Hungry Caterpillar story Making fruit smoothies **People who help us:** Making a police badge

	Handa's Surprise story: Make a fruit basket *Fastening skills* **Dark and light topic:** Owl Babies story Cutting bottom of card tube to make tabs to make standing Owls (adding feathers and googly eyes) **Making Rockets** (linked to Maths attaching cones) Clay Diva lamps for Diwali Christmas tree/snowflake cutting	Creating bridges using a variety of construction Chinese New Year: Dragon/lion puppets, explore concertina/fan techniques **Eggs/New life** Peeling a hard-boiled egg and mashing it to make Egg sandwiches	**Seaside topic** Seaside mobiles using created sea creatures Making Ice cream
Year 1	**Structures: Stable structures** Investigating stable shapes and using an understanding of balance to discover how wide or heavy bases improve stability in freestanding structures. Pupils apply their understanding by designing and making a fun, stable pencil pot for a Year 1 pupil.	**Mechanisms: Making a moving storybook** Investigating how sliders create movement in products by experimenting with simple mechanisms and storybook design. Pupils plan and make a moving story book by drawing backgrounds, creating moving parts and assembling pages based on a familiar story.	**Cooking and nutrition: Smoothies** Examining and taste-testing different fruits and vegetables to identify and compare ingredients. Pupils select ingredients for a smoothie before making their product and designing accompanying packaging.
Year 2/3	**Digital world: Wearable technology** Developing an understanding of programmable products by designing, coding and promoting wearable technology for use in low-light conditions. Pupils monitor and control their product to a real-world design scenario.	**Cooking and nutrition: Eating seasonally** Discovering where and when fruit and vegetables are grown by learning about seasonality in the UK. Pupils respond to a brief by designing a seasonal tart using ingredients harvested in the UK during May and June.	**Textiles: Cushions** Developing sewing and decorative textile skills using cross-stitch and appliqué techniques. Pupils apply their understanding to design, decorate and assemble their own cushion or Egyptian collar using a range of fabrics and stitching methods.
Year 4	**Cooking and nutrition: Adapting a recipe** Adapting a simple biscuit recipe for a chosen target audience. Pupils work collaboratively to select suitable ingredients, manage a budget for overheads and ingredients, and create a biscuit that meets specific design criteria.	**Mechanical systems: Mechanical cars** Exploring mechanical systems by building and testing prototype cars to identify effective design features. Pupils conduct market research, create design criteria and evaluate products from a customer perspective before designing their own mechanical car kit.	**Electrical systems: Torches** Applying scientific understanding of electrical circuits through designing and making a torch using recycled and reclaimed materials. Pupils construct and evaluate their product against design criteria to improve its effectiveness and functionality.
Year 5	**Structure: Bridges** Investigating different types of bridges and how structural strength is affected by shape and design. Pupils apply woodworking tools and techniques to design, build and test the durability of their own bridge structure.	**Cooking and nutrition: Developing a recipe** Considering how recipes can be adapted to improve nutritional value by modifying a traditional Bolognese sauce. Pupils cook their improved recipe and design packaging to meet specific design criteria.	**Electrical systems: Doodlers** Developing an understanding of series circuits by investigating how electrical products are constructed. Pupils explore existing motorised products to problem-solve design features before developing and creating their own

Year 6	**Textiles: Bags** Creating a bag for a specific user using pattern piece templates. Pupils select and sew functional and decorative features, including pockets and fastenings, to meet the needs of their design brief	**Structures: Playgrounds** Exploring playground design by creating a model that includes five pieces of apparatus made from three different structures. Pupils use a footprint base to develop plan-view drawing skills and incorporate creative natural features into their final design.	**Cooking and nutrition: Come dine with me** Developing food preparation and evaluation skills by researching and preparing a three-course meal. Pupils investigate the journey of a main ingredient from 'farm to fork', taste-test and score their dishes, and write a recipe for a favourite meal.