

Wheelers Lane Primary School Curriculum Concepts and Knowledge Journey

STEM Faculty: DT

The building blocks of learning. Our concepts stem from our whole school curriculum intent and thread through our entire school curriculum.

Strand	Year 1		Year 2		Year 3		Year 4		Year 5		Year 6	
	+ 1 DT if you wish		+ 1 DT if you wish		+ 1 DT if you wish		+ 1 DT if you wish		+ 1 DT if you wish		+ 1 DT if you wish	
Focus	Aspect of DT- Structures Focus - Free- standing structures (not junk modelling)	Aspect of DT- Food Focus- preparing fruit and vegetables	Aspect of DT- Mechanisms Focus- Sliders and Levers	Aspect of DT- Textiles Focus Templates and joining techniques	Aspect of DT- structures Focus-shell structures	Aspect of DT- food Focus- healthy and varied diet	Aspect of DT- Mechanisms Focus- Levers and Linkages	Textiles Focus – 2D	Aspect of DT – structures Focus- frame structures	Aspect of DT- food Focus- celebrating culture and seasonality	Aspect of DT Mechanisms Focus- Pulleys or gears	Aspect of DT Textiles Focus- Combining different fabric shapes
Key Question		Do apples grow underground?										
Concept 1 Heritage (Birmingham)												
Concept 2 Communication	Participate in discussion about various structures, taking turns and listening to what others say. Ask relevant questions to extend their knowledge and understanding. Build technical vocabulary.			Ask questions throughout the process to check understanding, develop vocabulary and build knowledge. Listen and respond to adults.	Ask relevant questions to extend knowledge and understanding. Build technical vocabulary.			Asking and answering questions to develop understanding. Through discussion, participate actively initiating and responding to comments.	Ask relevant questions, formulate and express opinions, give well-structured descriptions and explanations. Use relevant strategies to build their vocabulary.			Ask questions, formulate, articulate and justify answers, arguments and opinions. Consider and evaluate different viewpoints.
Concept 3 Powerful Stories	Ssh! We have a plan Chris Haughton			The elves and the shoemaker							Out of this world Ali Sparkes	
Concept 4 Sustainability, Rights and Responsibilities												
Concept 5 Creativity and Enrichment												

Concept 6 Me - now and in the future	Will playgrounds just be in the virtual world?	If all the land is taken up with buildings, where will I plant fruit and vegetables?										
Subject area 1 Working with tools, equipment, materials and components to make quality products	Investigation of assembling, joining and combining materials and components together using a variety of temporary methods e.g. glues or masking tape and equipment: scissors, hole punches	basic food handling, hygienic practices and personal hygiene Prepare / clean up a food area. Be aware of the range and types of food available. Be aware that raw materials can be processed to make food products. Follow a picture recipe. Mix and combine foods using the appropriate equipment safely. Use standard measures for solids / liquids.	Exploring simple see-saws e.g. a ruler balanced on a small box. Introduction to simple single arm and double arm linkages. Use of: card/paper fasteners kit parts - pegs, lock nuts punched lolly sticks, fasteners Use of scrap card, pin board or corrugated card to model ideas.	Decorate fabrics by printing and using fabric crayons. Use simple ways to join fabric together e.g. Gluing, Sellotape Use simple templates to make clothes for a doll / teddy. Use of binca e.g. for running stitch. Weaving paper strips	Investigation of making strong frameworks by addition of triangles. Use of bench hook, mitre block, gents saw, cutting jigs.	Work out in linked steps how to make a food product. Be aware that food can be grouped in different ways. Measure liquids in millilitres. Measure ingredients accurately. Know about temperature and hygiene when storing food. Evaluate consumer acceptability of their products using tests with verbal and or pictorial scales.	Introduction of a wider range of techniques for making hinges i.e. Jumbo/standard art straws. Square section with dowel peg joints secured by tubing collars. Scored card or taped hinges. Introduction to double arm linkages. Investigate premade examples. Use of cams and cranks.	Prepare themselves and the area to carry out fabric activities. Change the surface texture of fabrics - sticking things on, sewing on beads Use pinking shears to stop fraying. Measure, make and use a paper / card template / pattern for a garment. Creative weaving, plaiting, French knitting.	Drilling wood safely - pilot holes. Dowel pegs to make moving joints. Setting up own work area. Changing hacksaw blades. Hammer/nail skills for nail/thread pictures. Use of peg, card strip or playdough to hold nail. Use of g clamp, tenon saw, coping saw, shaper saw.	Make a step by step plan sequencing the materials, tools, ingredients to manufacture a food product. Assess products using sensory descriptors. Know that there are micro- organisms in food and that these are affected by temperature. Know that food choice is affected by nutrition, culture, availability and cost.	Early ideas about notion of movements. Prediction of where to put weights to make levers balance. Use of multiple arm linkages in paper engineering, kit models, timber constructions, steering linkages. Magnifying movement with levers.	Cut fabrics so that they join accurately Make decorative stitches on fabrics Pin and tack fabrics together Use a simple sewing machine under close supervision Use cold water dyes
Subject area 2												
Subject area 3												