Subject: Design and Technology in the EYFS at Brookside Primary School

The EYFS DT curriculum at Brookside Primary school We want to teach children tohave the foundational knowledge around; freestanding structures, food, mechanisms and textiles. Children will explore basic skills and knowledge through hands on investigations and activities. Children will be taught to use basic tools and master techniques e.g. joining two pieces of paper, using scissors to cut for a desired effect.	How we teach DT in the EYFS at Brookside Primary School We teach DT through ongoing continuous provision, in the creative areas in the classroom and the construction area. In addition, there are planned activities throughout the year which promote foundational knowledge in the identified areas e.g. mechanisms.	Our rationale for our E curriculumour young Brookside often have a construction kits e.g. D not had opportunity to and often lack the fine required. Therefore, w opportunities through scissors, cutlery, etc	EYFS DT gest children at already experienced ouplo but often have o use DT related tools motor control e plan additional out the year for using
We learn about Design and Technology through	_	-	
Expressive Arts and Design	Physical Development	Personal, Social and	Understanding of the
3 / 4 year olds: - Make imaginative and complex 'small	3 / 4 year olds: - Use large-	Emotional	World
worlds' with blocks and construction kits, such as a city	muscle movements to wave	Development	3 / 4 year olds: -
with different buildings and a park Explore different	flags and streamers, paint and	3 / 4 year olds: -	Explore how things
materials freely, in order to develop their ideas about how	make marks.	Select and use	work.
to use them and what to make Develop their own ideas	- Choose the right resources to	activities and	
and then decide which materials to use to express them.	carry out their own plan.	resources, with help	
- Create closed shapes with continuous lines, and begin to	- Use one-handed tools and	when needed. This	
use these shapes to represent objects.	equipment, for example,	helps them to	
Reception: - Explore, use and refine a variety of artistic	making snips in paper with	achieve a goal they	
effects to express their ideas and feelings.	scissors.	have chosen or one	
- Return to and build on their previous learning, refining	Reception: - Progress towards a	which is suggested to	
ideas and developing their ability to represent them.	more fluent style of moving,	them.	
- Create collaboratively, sharing ideas, resources and skills.	with developing control and		
	grace.		

ELG: EAD: Creating with materials:	Develop their small motor skills		
- Safely use and explore a variety of materials, tools and	so that they can use a range of		
techniques, experimenting with colour, design, texture,			
form and function.	ELG: PD: Fine motor skills: - Use		
- Share their creations, explaining the process they have	a range of small tools, including		
used.	scissors, paintbrushes and		
	cutlery.		
	- 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.		
By the end of the EYFS we would like children tobe able to	o confidently use simple tools and e	equipment. To use their	imaginations in
making creations. To have a knowledge of basic cooking tec	nniques. To develop their understar	nding of key vocabulary	around Design and
Technology to assist them with their learning in KS1.			

Brookside Design and Technology (D&T) Curriculum Sequencing

National	KS1	KS	52
Curriculum Objectives	Year 1/Year 2	Year 3/Year 4	Year 5/Year 6
Design, make, evaluate	 Design design purposeful, functional, appealing products for themselves and other users based on design criteria generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology Make select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics Evaluate explore and evaluate a range of existing products evaluate their ideas and products against design criteria 	 Design use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at individuals or groups generate, develop, model and communicate their ideas through discussion, annotated sketches, crosssectional and exploded diagrams, prototypes, pattern pieces and computeraided design Make select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities Evaluate investigate and analyse a range of existing products evaluate their ideas and products against their own design criteria and consider the views of others to improve their work understand how key events and individuals in design and technology have helped shape the world 	 Design use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at individuals or groups generate, develop, model and communicate their ideas through discussion, annotated sketches, crosssectional and exploded diagrams, prototypes, pattern pieces and computeraided design Make select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities Evaluate investigate and analyse a range of existing products evaluate their ideas and products against their own design criteria and consider the views of others to improve their work understand how key events and individuals in design and technology have helped shape the world
Technical knowledge	 build structures, exploring how they can be made stronger, stiffer and more stable explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products 	 apply their understanding of how to strengthen, stiffen and reinforce more complex structures understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] 	 apply their understanding of how to strengthen, stiffen and reinforce more complex structures understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]

Brookside Design and Technology (D&T) Curriculum Sequencing			
		 understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] apply their understanding of computing to program, monitor and control their products. 	 understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] apply their understanding of computing to program, monitor and control their products.
Cooking and nutrition	 use the basic principles of a healthy and varied diet to prepare dishes understand where food comes from. 	 understand and apply the principles of a healthy and varied diet prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed 	 understand and apply the principles of a healthy and varied diet prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed

Skills	KS1	K	52
Progression	Year 1/Year 2	Year 3/Year 4	Year 5/Year 6
Design, make, evaluate	 Designing Understanding contexts users and purposes: work confidently within a range of contexts, such as imaginary, storybased, home, school, gardens, playgrounds, local community, industry and the wider environment state what products they are designing and making say whether their products are for themselves or other users describe what their products are for say how their products will work say how they will make their products suitable for their intended users use simple design criteria to help develop their ideas 	 Designing Understanding contexts users and purposes: gather information about the needs and wants of particular individuals and groups develop their own design criteria and use these to inform their ideas Generating, developing, modelling and communicating ideas: generate realistic ideas, focusing on the needs of the user 	 Designing Understanding contexts users and purposes: carry out research, using surveys, interviews, questionnaires and webbased resources identify the needs, wants, preferences and values of particular individuals and groups Generating, developing, modelling and communicating ideas: generate innovative ideas, drawing on research

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 Generating, developing, modelling and communicating ideas: generate ideas by drawing on their own experiences use knowledge of existing products to help come up with ideas develop and communicate ideas by talking and drawing model ideas by exploring materials, components and construction kits and by making templates and mockups use information and communicate their ideas 	Making Planning:	Making Planning:
 select from a range of tools and equipment select from a range of materials and components according to their characteristics <i>Practical skills and techniques:</i> follow procedures for safety and hygiene use a range of materials and components, including construction materials and kits, textiles, food ingredients and mechanical components measure, mark out, cut and shape materials and components assemble, join and combine materials and components use finishing techniques, including those from art and design 	 order the main stages of making <i>Practical skills and techniques:</i> measure, mark out, cut and shape materials and components with some accuracy assemble, join and combine materials and components with some accuracy apply a range of finishing techniques, including those from art and design, with some accuracy 	 produce appropriate lists of tools, equipment and materials that they need formulate step-by-step plans as a guide to making <i>Practical skills and techniques:</i> accurately measure, mark out, cut and shape materials and components accurately assemble, join and combine materials and components accurately apply a range of finishing techniques, including those from art and design demonstrate resourcefulness when tackling practical problems
Evaluating Own ideas and products:	Evaluating Own ideas and products:	Evaluating Own ideas and products:
 talk about their design ideas and what they are making 	 refer to their design criteria as they design and make 	 critically evaluate the quality of the design, manufacture and fitness for

Brookside Design and Technology (D&T) Curriculum Sequencing

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	 make simple judgements about their products and ideas against design 	 use their design criteria to evaluate their completed products 	purpose of their products as they design and make
	criteria	Evicting products	Evicting productor
	 Existing products: Across KS1 pupils should explore: what products are who products are for what products are for how products work how products are used where products might be used what materials products are made from what they like and dislike about products 	 Existing products: who designed and made the products where products were designed and made when products were designed and made whether products can be recycled or reused Key events and individuals: Across KS2 pupils should know: about inventors, designers, engineers, chefs and manufacturers who have developed 	 Existing products: how much products cost to make how innovative products are how sustainable the materials in products are what impact products have beyond their intended purpose Key events and individuals: Across KS2 pupils should know: about inventors, designers, engineers, chefs and manufacturers who have developed
		ground-breaking products	ground-breaking products
Technical knowledge	 Making products work about the simple working characteristics of materials and components about the movement of simple mechanisms such as levers, sliders, wheels and axles 	 Making products work how mechanical systems such as levers and linkages or pneumatic systems create movement how simple electrical circuits and components can be used to create functional products how to program a computer to control their products how to make strong, stiff shell structures 	 Making products work how mechanical systems such as cams or pulleys or gears create movement how more complex electrical circuits and components can be used to create functional products how to program a computer to monitor changes in the environment and control their products how to reinforce and strengthen a 3D framework
Cooking and nutrition	 Where food comes from that all food comes from plants or animals that food has to be farmed, grown elsewhere (e.g. home) or caught Food preparation, cooking and nutrition how to name and sort foods into the five groups in the eatwell plate that everyone should eat at least five portions of fruit and vegetables every day how to prepare simple dishes safely and hygienically, without using a heat source how to use techniques such as cutting, 	 Where food comes from Across KS2 pupils should know: that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world Food preparation, cooking and nutrition that a healthy diet is made up from a variety and balance of different food and drink, as depicted in The eatwell plate that to be active and healthy, food and drink are needed to provide energy for the body 	 Where food comes from In late KS2 pupils should also know: that seasons may affect the food available how food is processed into ingredients that can be eaten or used in cooking Food preparation, cooking and nutrition that different food and drink contain different substances – nutrients, water and fibre – that are needed for health

Where skills &	KS1	K	S2
objectives are taught.	Year 1/Year 2	Year 3/Year 4	Year 5/Year 6
Design, make, evaluate	 Year A Mechanisms – sliders and levers Pop-up books I can fold, draw and design a pop up tab. I can generate and develop my ideas. I can select from and use a range of tools and equipment to perform practical tasks. I can select from and use a range of tools and equipment to perform must be a range of tools and equipment be a range of tools and	 Year A Mechanical systems – levers and linkages To explore a lever and how it creates movement To research and design To make To evaluate Textiles – 2-D- 3-D product Wallets To research and design a wallet/purse To practise sewing techniques 	 Year A Structures - Frame structures Automata animals Understand and use mechanical systems in their products Use research and design criteria to inform a design Select from and use a wider range of materials Building frameworks Evaluate ideas and products
	 shaping, joining and finishing] I can collate my pop-up book. I can evaluate my pop- up book Structures – freestanding structures I understand what a structure is and the functions of free-standing structures. 	 To make a wallet/purse (3D product) from a 2D shape To evaluate my design Year B Structures - Egg drop challenge Selecting appropriate materials 	 (including computer aided design) Weaving (Anglo-Saxon link) Understanding techniques Selecting appropriate materials Investigating how dyes can be created from everyday materials Weaving colour schemes & patterns Evaluating technique & design
	 I can design a structure. I can design a bridge. I can create a prototype. I can investigate and test my design Year B Textiles – templates and joining techniques Puppets Research different puppets and 	 Designing a suitable structure Testing and evaluating effectiveness Mechanisms – axles and wheels Roman chariot To investigate Roman entertainment from a range of sources. To join wheels and axles effectively and explain how they work Generating a design based on 	 Electrical systems/cross-curricular computing: understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] apply their understanding of computing to program, monitor and control their products.
	comparedesign a purposeful, functional and appealing puppet	 research and prior knowledge Use appropriate tools and equipment to put together a Roman Chariot Evaluate and test effectiveness 	Year B Air powered balloons • Understand how a balloon can be used to power a small vehicle

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	 select from and use a range of tools and equipment to perform tasks and make a puppet evaluate my puppet against a design criteria Mechanisms- axles and wheels Pull toys Explore, explain and evaluate a wheel and axle mechanism Design, make and evaluate a product with a wheel and axle mechanism 		 Design and make own balloon powered car Evaluate effectiveness and design Mechanisms – pulleys and levers K'nex construction kits Comparing lever mechanisms How levers change direction Where levers are used Types of pulley system How pulleys change the amount of force used
			 Textiles – combining different fabric shapes (including computer aided design) Poppies Understanding sewing techniques Selecting appropriate materials Putting together and evaluating design and practical use
Technical knowledge	 Making products work about the simple working characteristics of materials and components about the movement of simple mechanisms such as levers, sliders, wheels and axles how freestanding structures can be made stronger, stiffer and more stable 	 Making products work how mechanical systems such as levers and linkages or pneumatic systems create movement how simple electrical circuits and components can be used to create functional products how to program a computer to control their products how to make strong, stiff shell structures 	 Making products work how mechanical systems such as cams or pulleys or gears create movement how more complex electrical circuits and components can be used to create functional products how to program a computer to monitor changes in the environment and control their products how to reinforce and strengthen a 3D framework
Cooking and nutrition	 Year A and B Food- preparing fruit and vegetables (including cooking and nutritional requirements for KS1) Year A – Fruit smoothies Investigate and evaluate fruit and vegetables Explore the Eatwell plate in relation to a smoothie 	 Year A and B Food - Healthy and varied diet (including cooking and nutrition requirements for KS2) Year A – Sandwich for a picnic Investigate a range of food products Link to Eatwell plate Sensory evaluation on the contents of the food How are ingredients used in products grown, harvested, reared and caught. 	 Year A and B Food – Celebrating culture and seasonality (including cooking and nutrition requirements for KS2) Year A – Pasta dish Seasonality of food Understand seasonality and when foods are grown in the UK How ingredients are reared, caught and processed Plate proportions and protein choices

Brookside Design and Technology (D&T) Curriculum Sequencing

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 Investigate and plan how to make 	Selecting, using a range of utensils and	 Designing a seasonal meal
smoothie	techniques appropriately	 How to store and prepare food safely
Make and evaluate a smoothie	• Designing a sandwich for a summer picnic	 Prepare and cook a savoury dish using
 Design and create a label for my smoothie 	Food hygiene	a range of cooking techniques
		Evaluate a meal
Year B –	Year B-	
Biscuits	Bicester Market Stall	Year B –
 Discuss ingredients and tools used to 	Investigate a range of food products	Cooking
measure	Link to Eatwell plate	 Greek honey bread
Preparing hygienically	Sensory evaluation on the contents of the	Preparing ingredients
	food	Using utensils
	How are ingredients used in products	 Applying heat in different ways
	grown, harvested, reared and caught.	
	• Selecting, using a range of utensils and	
	techniques appropriately	
	Food hygiene	

Brookside Primary School

Long term plan for Design and Technology (DT) KS1 and KS2 2022/2023

Key Stage 1

	Mechanisms	Structures	Food
A	Sliders and levers	Freestanding structures	Preparing fruit and vegetables (including cooking and putrition
			requirements for KS1)
	Mechanisms	Food	Textiles
В	Wheels and axles	Preparing fruit and vegetables (including cooking and nutrition requirements for KS1)	Templates and joining techniques

A	Mechanical Systems Levers and linkages	Food Healthy and varied diet (including cooking and nutrition requirements for	Textiles 2-D shape to 3-D product
	Structures	KS2) Electrical Systems	Food
В	Shell structures (including computer-aided design)	Simple circuits and switches (including programming and control)	Healthy and varied diet (including cooking and nutrition requirements for
			KS2)

UKS2

		1
Structures	Food	Electrical Systems
Frame structures	Celebrating culture and	More complex switches
	seasonality (including	and circuits (including
	cooking and nutrition	programming, monitoring
	requirements for KS2)	and control)
Textiles	Mechanical Systems	Food
Combining different fabric	Pulleys or gears	Celebrating culture and
shapes (including		seasonality (including
computer-aided design)		cooking and nutrition
		requirements for KS2)
	Structures Frame structures Textiles Combining different fabric shapes (including computer-aided design)	StructuresFoodFrame structuresCelebrating culture and seasonality (including cooking and nutrition requirements for KS2)TextilesMechanical Systems Pulleys or gearsCombining different fabric shapes (including computer-aided design)Pulleys or gears

LKS2