

Kidsgrove Primary School



Design Technology

Empowering Learners... Growing Minds

Design	A plan or drawing produced to show the look and function or workings of a building, garment, or other object before it is made.
Nutrition	The nourishment or energy that is obtained from food consumed or the process of consuming the proper amount of nourishment and energy. An example of nutrition is the nutrients found in fruits and vegetables. An example of nutrition is eating a healthy diet.
Technology	Technology is science or knowledge put into practical use to solve problems or invent useful tools.
Data	Data is "known facts". It especially refers to numbers, but can also mean words, sounds, and images too. Originally, data is the plural of the Latin word datum which means "give".
Evaluate	To evaluate is the act or the result of evaluating a situation that requires careful consideration to determine the value, nature, character, or quality of something.
Functionality	The quality or state of being functional. A design that is admired both for its beauty and for its functionality: the set of functions or capabilities associated with something.
Innovation	The process of making (something) new or doing something in a new way. Innovation also has to include the concept of improvement; to innovate is not just to do something differently, but to do or make something better.

Acorn Values : Ambition, Courage, One Team, Respect, Never Give Up

Empowering Learners... Growing Minds

Kidsgrove Primary School - Design and Technology progression through EYFS

EAD: Creating with Materials & Being Imaginative and Expressive

Playing & Exploring - Engagement	Active Learning - Motivation	Creating & Thinking Critically - Thinking
- Finding out & exploring - Playing with what they know - Being willing to 'have a go'	- Being involved & concentrating - Keep on trying - Enjoying achieving what they set out to do	- Having their own ideas (creative thinking) - Making links (building theories) - Working with ideas (critical thinking)

ELG
 - Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function
 - Share their creations, explaining the process they have used
 - Make use of props and materials when role-playing characters in narratives and stories

Focus	Designing	Making	Evaluating	Technical Skills	Food Technology	Vocabulary- To be used daily.
Nursery Skills	Develop own ideas & decide which materials to use to express them	Use various construction materials, e.g., joining pieces, stacking vertically and horizontally, balancing, making enclosures and creating spaces Use available resources to create props or creates imaginary ones to support play	Notice what other children & adults do, mirroring what is observed, adding variations & then doing it spontaneously	Develop new skills & techniques Use tools for a purpose	Talk about the differences between materials & changes they notice Make healthy choices	Like/ dislike Use, cut, snip, press, fold, join, fix, glue, stick, bumpy, smooth, shiny, hard, soft, rough, fruit, vegetables, healthy, unhealthy, different
Nursery Knowledge	Autumn	Autumn	Spring	Spring	Summer	Summer
	My Family and Me	A Special Place to Be	Let's Go Exploring	What a Wonderful World	Big and Small	Superhero Adventures
	- Make snips in paper using a two-handed scissor grip. - Use glue to join pieces	- Use a range of tools rolling pin, cutters, extruders, scissors, hole punch, Sellotape dispenser independently. - Build a representation of own home using a mixture of materials.	Use a variety of different materials to create a variety of different transport such as a boat, plane, helicopter .	- Use a range of materials to join, glue, string, cotton, Sellotape - Make own designs from junk modelling materials - Match animals to the food they produce - Know that some food is grown from plants and trees – vegetable / fruit	Explain what healthy and unhealthy means.	Use a range of tools rolling pin, cutters, extruders, scissors, hole punch, Sellotape dispenser independently and with accuracy Create animal habitats using a range of different materials and textures and explain their choices

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Children to be exposed to key vocabulary daily in provision. High quality resources will be provided for daily accessibility. Playdough/ Malleable/Art/building/small world and outdoor provisions will provide a wealth of opportunity. Resources will be enhanced and developed as children develop their skill set.

Experiences	SMSC	British Values	The Acorn Values
Colouring competition – fine motor skill development. Chinese new year – link with different foods eaten during celebrations.	Moral - children are taught how to look after their environment during activities	Respect and tolerance is discussed when children notice what other people do and mirror it or chose to do differently	Never Give Up is taught when using scissors. Respect is taught by promoting caring for their environment.

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EAD: Creating with Materials & Being Imaginative and Expressive

Playing & Exploring - Engagement			Active Learning - Motivation		Creating & Thinking Critically - Thinking	
- Finding out & exploring - Playing with what they know - Being willing to 'have a go'			- Being involved & concentrating - Keep on trying - Enjoying achieving what they set out to do		- Having their own ideas (creative thinking) - Making links (building theories) - Working with ideas (critical thinking)	
ELG						
- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function						
- Share their creations, explaining the process they have used						
- Make use of props and materials when role-playing characters in narratives and stories						
Focus	Designing	Making	Evaluating	Technical Skills	Food Technology	Vocabulary- To be used daily.
Reception Skills	- Develop own ideas through experimentation with diverse materials to express & communicate their discoveries & understanding - Create collaboratively sharing ideas, resources & skills	- Use increasing knowledge & understanding of tools & materials to explore their interests & enquiries & develop their thinking - Create representations both imaginary & real-life ideas, events, people & objects	- Express & communicates working theories, feelings & understandings - Responds imaginatively to art works & objects - Return to & build on previous learning, refining ideas & developing their ability to represent them - Discuss problems & how they might be solved	- Use different techniques for joining materials - Use tools independently, with care & precision	- Look closely at similarities, differences, patterns & change - Know & talk about the different factors that support their overall health & well-being	Cutting, measure, folding, joining, gluing, tearing, decorate, printing, tools, strong, shape, materials, textiles, wheels, equipment, like, dislike, improve, better, cutting, plants, animals, farming, foods.
Reception Knowledge	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	My Environment and Me	Special Times and Places	Exploring and Changing	Growing and Changing	Save Our World	Save Our World
	⇒ Brush own teeth and talk about the importance of good oral health. ⇒ Begin to talk about the effect of exercise and food on their health. Use colour and materials to express how they are feeling through own creations using a variety of textures.	Use construction materials to build structure of my home. Use fabric to create houses for a character from a story Use a variety of construction materials to build an aerial view of KPS	Toast bread and analyse the effects of heat. Use a of range construction materials to build structure of TMPA and compare the different mediums.	⇒ Use eggs produced (make link to coming from chicks to prepare and bake a cupcake - explain the process ⇒ Use a variety of construction materials to build an aerial view of Stoke	⇒ From food to fork'. Understand where food comes from and experience growing their own vegetables, harvesting, preparing, and eating. ⇒ Use heat to melt chocolate and cook Brazilian bananas. Look at the effects of cooking and melting.	⇒ Use a range of materials to make a moving puppet. ⇒ Verbally evaluate their work and explain what is good and one thing that could make it better. ⇒ Construct a building from our community and label their model – place of work, school, hospital
Food		Mechanisms			Structures	

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Children to be exposed to key vocabulary daily in provision. High quality resources will be provided for daily accessibility. Playdough/ Malleable/Art/building/small world and outdoor provisions will provide a wealth of opportunity. Resources will be enhanced and developed as children develop their skill set.

Experiences	SMSC	British Values	The Acorn Values
• Colouring competition – fine motor skill development. • Chinese new year – link with different foods eaten during celebrations. • Easter bonnet making – joining and cutting skills. Reading breakfast – experiencing different foods with family, use of cutlery.	• Cultural – children are exposed to a range of foods linked with celebrations. They are also taught about where food comes from. • Social – children are taught about different buildings in their local area when building houses, shops and schools.	• Individual liberty is taught when children begin to express their feelings and understanding. Respect is taught when children are working collaboratively together.	• Team Work is taught when the children are working as part of a team.

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KS1 Cycle A: Design and Technology

KS1: POS

- Use the basic principles of a healthy and varied diet to prepare dishes.
- To understand where food comes from.
- Design purposeful, functional, appealing products for themselves and other users based on design criteria.
- 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.
- Explore and evaluate a range of existing products.
- Explore and use mechanisms [for example levers, sliders, wheels and axles], in their products.
- Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.
- Generate, develop, model and communicate their ideas through discussion, annotated sketches and prototypes.
- Select from tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] accurately.
- Investigate and analyse a range of existing products.
- Evaluate their ideas and products against their own design criteria.

	Skills	Knowledge	End points:
Structures: Baby Bear's Chair	• Select appropriate tools for cutting, shaping and joining. • Use simple fixings (tape, glue, tabs) to strengthen structures. • Test materials for strength and stability. • Build structures using card, paper and simple construction materials.	• A structure must be stable and strong. • Materials behave differently depending on shape and reinforcement. • Strength can be increased through folding, layering and bracing.	• Create a stable chair structure for Baby Bear. • Explain how they strengthened their structure.

Empowering Learners... Growing Minds

Cooking & Nutrition: Balanced Diet	• Cut safely using bridge and claw techniques. • Prepare simple dishes with fruit and vegetables. • Sort foods into the Eatwell food groups. • Measure ingredients using simple tools.	• A balanced diet includes a variety of food groups. • Hygiene rules: washing hands, cleaning surfaces, safe handling. • Ingredients can be combined to create healthy meals.	• Prepare a simple dish using balanced ingredients. • Identify foods from each food group.
Mechanisms: Making a Moving Monster	• Create a simple lever mechanism. • Cut and assemble card linkages. • Use split pins to allow movement. • Decorate with purposeful design choices.	• Levers create movement through pivots. • Mechanisms change an input motion to an output motion.	• Build a moving monster using lever mechanisms. • Explain how their mechanism moves.

Cycle A - Key Vocabulary

Structures: Baby Bear's Chair	Cooking & Nutrition: Balanced Diet	Mechanisms: Making a Moving Monster
Structure, stability, strength, reinforce, join, base.	Hygiene, diet, ingredient, measure, healthy.	Lever, pivot, linkage, split pin, mechanism

Experiences	SMSC	British Values	Acorn Values
Different flavours / spices of food.	Social: Working together to build structures. • Moral: Considering food choices and healthy lifestyles. • Spiritual: Appreciating creativity in puppet design. • Cultural: Exploring mechanisms and structures from different contexts.	Individual Liberty: Freedom to design and choose materials. • Mutual Respect: Evaluating peers' products positively. • Democracy: Group decisions on designs or flavours.	Ambition – Aiming for well-constructed products. • Courage – Trying new food combinations or construction methods. • One Team – Collaborating during building and cooking tasks. • Resilience – Adjusting and improving designs. • Never Give Up – Persisting with cutting and joining challenges.

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KS1 Cycle B: Design and Technology

KS1: POS

- Use the basic principles of a healthy and varied diet to prepare dishes.
- To understand where food comes from.
- Design purposeful, functional, appealing products for themselves and other users based on design criteria.
- 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.
- Explore and evaluate a range of existing products.
- Explore and use mechanisms [for example levers, sliders, wheels and axles], in their products.
- Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.
- Generate, develop, model and communicate their ideas through discussion, annotated sketches and prototypes.
- Select from tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] accurately.
- Investigate and analyse a range of existing products.
- Evaluate their ideas and products against their own design criteria.

Empowering Learners... Growing Minds

	Skills	Knowledge	End points:
Textiles: Puppets	- Join fabric using glue, running stitch or stapling. - Cut fabric templates accurately. - Add decorative features using a range of materials	- Textiles can be cut, shaped and joined. - Templates help ensure pieces fit together.	- Create a simple puppet with secure joining. - Explain how the design suits the character.
Structures: Windmills	- Design and build a simple windmill structure. - Create a rotating mechanism. - Strengthen a tower using folds or layers	- Windmills use wind energy to rotate sails. - Axles and wheels create rotation.	- Build a windmill with moving blades. - Describe how the axle works
Cooking & Nutrition: Smoothies	- Chop soft fruit safely. - Blend ingredients to create flavour combinations. - Evaluate taste, texture and appearance.	- Fruit provides important vitamins. - Combining flavours creates new tastes.	- Make a smoothie with healthy ingredients. - Evaluate the taste and texture of their smoothie.

Cycle B- Key Vocabulary		
Textiles: Puppets	Structures: Windmills	Cooking & Nutrition: Smoothies
Template, stitch, fabric, decorate, join.	Axle, rotation, tower, structure, stability.	Blend, flavour, ingredient, evaluate.

Experiences	SMSC	British Values	Acorn Values
Different flavours / spices of food.	Social: Working together to build structures. - Moral: Considering food choices and healthy lifestyles. - Spiritual: Appreciating creativity in puppet design. - Cultural: Exploring mechanisms and structures from different contexts.	Individual Liberty: Freedom to design and choose materials. - Mutual Respect: Evaluating peers' products positively. - Democracy: Group decisions on designs or flavours.	Ambition – Aiming for well-constructed products. - Courage – Trying new food combinations or construction methods. - One Team – Collaborating during building and cooking tasks. - Resilience – Adjusting and improving designs. - Never Give Up – Persisting with cutting and joining challenges.

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LKS2 Cycle A: Design and Technology

KS2- POS

- To 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
- To understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.
- To use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.
- To generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces
- 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, and ingredients, according to their functional properties and aesthetic qualities.
- 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.
- To understand how key events and individuals in design and technology have helped shape the world
- To understand and use Electrical systems in their products.

Empowering Learners... Growing Minds

	Skills	Knowledge	End points:
Electrical Systems: Torches	• Create circuits using bulbs, switches and wires. • Build a simple torch casing using card or plastic. • Apply accurate measuring and cutting. • Select appropriate components for function and design.	• A circuit must be complete for electricity to flow. • Switches control the flow of electricity. • Materials can insulate or conduct electricity.	• Create a functioning torch with a working switch. • Explain how their circuit works and identify conductors/insulators.
Cooking & Nutrition: Adapting a Recipe	• Weigh and measure ingredients accurately. • Prepare ingredients using cutting and mixing techniques. • Adapt an existing recipe by changing flavours or ingredients. • Evaluate their dish based on taste, appearance and texture.	• Recipes can be altered to meet dietary needs. • Ingredients change properties when mixed or heated. • Nutrition labels help inform healthy choices.	• Produce an adapted recipe that maintains balance and taste. • Explain how and why they changed the original recipe.
Structures: Pavilions	• Build frame structures using card, wood, dowel or straws. • Strengthen structures using triangulation. • Apply decorative cladding and design features. • Work precisely to measure and join materials.	• Frame structures rely on strong joints and reinforced corners. • Triangulation increases structural strength. • Architecture blends function and aesthetic appeal.	• Build a pavilion with a secure frame and cladding. • Explain how they strengthened their structure.

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Empowering Learners... Growing Minds

Cycle A- Key Vocabulary

Electrical Systems: Torches	Cooking & Nutrition: Adapting a Recipe	Structures: Pavilions
Circuit, switch, conductor, insulator, component, bulb.	Measure, adapt, modify, texture, nutrition, ingredient	Frame, cladding, triangulation, structure, joint.

Experiences	SMSC	British Values	Acorn Values
Cooking and using different utensils	Social: Teamwork in structures and textiles. • Moral: Making healthy recipe choices. • Spiritual: Appreciating creativity in digital and physical design. • Cultural: Learning about historical structures like castles.	Individual Liberty: Freedom to design personalised products. • Mutual Respect: Respectful critique and feedback. • Democracy: Voting on design features and recipe adaptations	Ambition – Taking pride in precise stitches and structures. • Courage – Experimenting with programming and new materials. • One Team – Working collaboratively on large projects. • Resilience – Adjusting circuits and structural reinforcements. • Never Give Up – Persisting with challenging constructions.

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LKS2 Cycle B: Design and Technology

KS2- POS

- To 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
- To understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.
- To use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.
- To generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.
- 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 and ingredients, according to their functional properties and aesthetic qualities.
- 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.
- To understand how key events and individuals in design and technology have helped shape the world
- apply their understanding of how to strengthen, stiffen and reinforce more complex structures
- To understand and use mechanical systems in their products.

Empowering Learners... Growing Minds

	Skills	Knowledge	End points:
Digital World: Mindful Moments Timer	Design simple digital devices with user needs in mind. • Use block-based programming to sequence actions. • Create a timer interface with buttons or prompts. • Build a prototype casing for the device.	• Digital devices follow programmed instructions. • Inputs and outputs determine product functionality. • Prototypes help test and refine ideas.	• Create a functional timer design with programmed behaviours. • Present how their device supports wellbeing.
Textiles: Cushions	• Use running, overstitch and back stitch techniques. • Accurately cut fabric using templates. • Stuff and close seams neatly. • Decorate with applique, stitching or fabric pens.	• Different stitches produce different strengths and effects. • Templates ensure accurate cutting. • Textiles must be functional and appealing.	• Produce a functional cushion with neat stitching. • Demonstrate accurate cutting and finishing.
Structures: Constructing a Castle	• Create features like towers, battlements and walls using nets. • Strengthen large structures using tabs, layers and reinforcements. • Add working elements (drawbridges or doors). • Combine accuracy with creative design.	• Castles include defensive architectural features. • Reinforcing card increases strength and stability. • Nets form the basis of 3D models.	• Build a detailed castle model with accurate components. • Explain the purpose of defensive features.

Cycle B- Key Vocabulary

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Empowering Learners... Growing Minds

Digital World: Mindful Moments Timer	Textiles: Cushions	Structures: Constructing a Castle
Circuit, switch, conductor, insulator, component, bulb.	Template, stitch, seam, stuffing, applique.	Net, turret, battlement, reinforce, hinge.

Experiences	SMSC	British Values	Acorn Values
Cooking and using different utensils	Social: Teamwork in structures and textiles. • Moral: Making healthy recipe choices. • Spiritual: Appreciating creativity in digital and physical design. • Cultural: Learning about historical structures like castles.	Individual Liberty: Freedom to design personalised products. • Mutual Respect: Respectful critique and feedback. • Democracy: Voting on design features and recipe adaptations	Ambition – Taking pride in precise stitches and structures. • Courage – Experimenting with programming and new materials. • One Team – Working collaboratively on large projects. • Resilience – Adjusting circuits and structural reinforcements. • Never Give Up – Persisting with challenging constructions.

UKS2 Cycle A: Design and Technology

KS2- POS

- To 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
- To understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.
- To use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.
- To generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.
- Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately.

Acorn Values : Ambition, Courage, One Team, Respect, Never Give Up

Empowering Learners... Growing Minds

- 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.
- 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.
- To understand how key events and individuals in design and technology have helped shape the world
- apply their understanding of how to strengthen, stiffen and reinforce more complex structures
- To understand and use mechanical systems in their products.
- To understand and use electrical systems in their products.

Empowering Learners... Growing Minds

	Skills	Knowledge	End points:
Electrical Systems: Doodlers	Build electrical circuits incorporating motors and switches. • Use components correctly (battery holders, crocodile clips, motors). • Assemble a product casing to contain circuitry. • Refine product design for accuracy, stability and function.	• Motors convert electrical energy into movement. • Circuits must be complete and correctly connected. • Friction, weight and material choice affect movement patterns.	• Create a working doodler using a motorised circuit. • Explain how changing weight or balance affects movement.
• Cooking & Nutrition: Developing a Recipe	• Read and follow more complex recipes. • Adapt a recipe for health, dietary needs or flavour profiles. • Use a wider range of food preparation skills: peeling, grating, mixing, seasoning. • Present dishes attractively and evaluate critically.	Nutritional balance varies for individuals. • Cooking methods change the properties and flavours of ingredients. • Recipes can be adapted creatively while maintaining nutrition.	• Produce an adapted recipe demonstrating balanced nutrition. • Justify their ingredient changes and evaluate the final dish.
• Digital World: Navigating the World	• Apply block-based programming for inputs and outputs. • Design a navigational device prototype. • Sequence and debug code. • Present a product aimed at a specific user group.	• Digital products use sensors and GPS-like principles. • Inputs and outputs determine user interaction. • Products are designed to solve real-world problems.	• Create a digital prototype with programmed functions. • Explain how their product assists a user in navigation.

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Empowering Learners... Growing Minds

Key Vocabulary		
Electrical Systems: Doodlers	Cooking & Nutrition: Developing a Recipe	Digital World: Navigating the World
Circuit, motor, switch, conductor, insulator, rotate, vibration.	Season, adapt, modify, nutrition, portion, evaluate.	Input, output, debug, sequence, sensor, navigation.

Experiences	SMSC	British Values	Acorn Values
	Social: Collaboration on complex structures and digital products. • Moral: Considering healthy lifestyle choices in recipe development. • Spiritual: Exploring creativity through narrative pop-up designs. • Cultural: Understanding global navigation technologies.	Individual Liberty: Freedom to design unique products. • Mutual Respect: Sharing ideas and evaluating fairly. • Democracy: Group decisions during prototyping and design pitches.	Ambition – High-quality, functioning digital and mechanical products. • Courage – Experimenting with circuitry, coding and mechanisms. • One Team – Supporting peers with complex prototypes. • Resilience – Debugging, revising and solving design problems. • Never Give Up – Persisting with intricate stitching and mechanism assembly.

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UKS2 Cycle B: Design and Technology

KS2- POS

- To use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.
 - To generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.
 - 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 and ingredients, according to their functional properties
 - 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.
 - To understand how key events and individuals in design and technology have helped shape the world
 - apply their understanding of how to strengthen, stiffen and reinforce more complex structures
 - To understand and use mechanical systems in their products.
 - To understand and use electrical systems in their products.
- Apply their understanding of computing to program, monitor and control their products.

Empowering Learners... Growing Minds

	Skills	Knowledge	End points:
Digital World: Mindful Moments Timer	- Design digital products with user wellbeing in mind. - Use programming software to control timers, sounds or lights. - Develop multiple prototypes and test functionality. - Create a casing using nets, card or simple materials.	Digital timers rely on accurate sequencing. - Coding allows devices to automate behaviours. - Prototyping improves user experience.	- Produce a functional programmed timer. - Present and evaluate the product's wellbeing purpose.
- Textiles: Stuffed Toys	- Use running, blanket, back and overstitch techniques. - Accurately sew curved and straight edges. - Stuff toys evenly and close seams securely. - Add decorative details such as features, clothing or patterns.	- Plush toys require strong seams and durable stitching. - Templates must be accurate for symmetrical designs. - Evaluating prototypes improves safety and appeal.	- Create a stuffed toy with strong seams and creative design. - Justify material and stitch choices.
Mechanical Systems: Making a Pop-Up Book	- Create mechanisms: levers, sliders, pivots and folds. - Combine multiple mechanisms in a single page. - Cut, score and fold card precisely. - Sequence pages to create a narrative.	- Mechanical systems create movement in books. - Different mechanisms produce different types of motion. - Accuracy is essential for movement functionality.	- Produce a multi-page pop-up book using varied mechanisms. - Explain how movement enhances the story.

Empowering Learners... Growing Minds

Key Vocabulary		
Digital World: Mindful Moments Timer	Textiles: Stuffed Toys	Mechanical Systems: Making a Pop-Up Book
Program, prototype, wellbeing, output, sequence.	Stuffing, seam, template, stitch, decorative.	Lever, pivot, slider, fold, mechanism.

Experiences	SMSC	British Values	Acorn Values
	Social: Collaboration on complex structures and digital products. • Moral: Considering healthy lifestyle choices in recipe development. • Spiritual: Exploring creativity through narrative pop-up designs. • Cultural: Understanding global navigation technologies.	Individual Liberty: Freedom to design unique products. • Mutual Respect: Sharing ideas and evaluating fairly. • Democracy: Group decisions during prototyping and design pitches.	Ambition – High-quality, functioning digital and mechanical products. • Courage – Experimenting with circuitry, coding and mechanisms. • One Team – Supporting peers with complex prototypes. • Resilience – Debugging, revising and solving design problems. • Never Give Up – Persisting with intricate stitching and mechanism assembly.

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