

Design and Technology

Curriculum Plan



SOUTHRIDGE FIRST SCHOOL - Design and Technology Long Term Plan

(Including Cookery and Nutrition)

Purpose of study

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

Aims of the Early Years Foundation Stage

In both our Nursery and Reception classes, the fundamental design technology skills are taught across all areas of the Early Years Foundation Stage Curriculum. We will provide a range of experiences both indoors and out which attract interest and curiosity. These early experiences include:

- Asking questions about how things work
- Investigating and using a variety of construction kits, materials, tools and products
- Develop making skills and handle appropriate tools and construction material safely and with increasing control.

This learning forms the foundations for later work in design and technology.

Aims

The national curriculum for design and technology aims to ensure that all pupils:

- Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- Build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users
- Critique, evaluate and test their ideas and products and the work of others
- Understand and apply the principles of nutrition and learn how to cook.

Subject content for Key Stage 1

Pupils should be taught:

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts, such as the home and school, gardens and playgrounds, the local community, industry and the wider environment.

When designing and making, pupils should be taught to:

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 such as 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

Technical knowledge

- Build structures, exploring how they can be made stronger, stiffer and more stable
- Explore and use mechanisms, such as levers, sliders, wheels and axles, in their products.

Subject content for Key Stage 2

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment.

When designing and making, pupils should be taught to:

Design

- 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, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

Make

- Select from and use a wider range of tools and equipment to perform practical tasks, such as 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

<p>Evaluate</p> <ul style="list-style-type: none"> 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 <p>Technical knowledge</p> <ul style="list-style-type: none"> Apply their understanding of how to strengthen, stiffen and reinforce more complex structures Understand and use mechanical systems in their products, such as gears, pulleys, cams, levers and linkages Understand and use electrical systems in their products, such as series circuits incorporating switches, bulbs, buzzers and motors Apply their understanding of computing to programme, monitor and control their products.
<p>Attainment targets:</p> <p>By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.</p>
<p>COOKING & NUTRITION</p>
<p>Pupils should be taught to:</p> <p>Key stage 1</p> <ul style="list-style-type: none"> Use basic principles of a healthy and varied diet to prepare dishes, understand where food comes from.
<p>Key stage 2</p> <ul style="list-style-type: none"> 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.
<p>As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.</p>

Southridge First School Foundation Stage Design and Technology Curriculum Overview

<p>Nursery</p> <p>Skills and knowledge the children will develop</p>					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<p>Understand the words ‘who’, ‘what’ and ‘where’ if used in simple questions asked within the here-and-now.</p> <p>Pay attention and respond to the pictures or the words in books.</p>	<p>Know where things are in my environment so I can be independent and tidy away.</p> <p>Know how to make large vertical, horizontal and circular marks.</p> <p>Know how to use one-handed tools and equipment, for example,</p>	<p>Know how to make marks with different size pens and pencils.</p> <p>Know how to use language to choose and plan play/activities with visual support.</p> <p>Know how to collaborate with others to manage large items, such</p>	<p>Know what the word ‘healthy’ means and that some foods are healthier than others.</p> <p>Know how to use more specific vocabulary to name objects and to describe things.</p>	<p>Know how to use more complex sentence structures and link thoughts, ideas and events with ‘and,’ ‘because’ and ‘so’.</p> <p>Understand and follow sequential instructions containing words such as ‘before,’ ‘after,’ ‘first,’ ‘last’ and ‘later’.</p>	<p>Know some things I can do and some food I can eat to be healthy.</p> <p>Know how to express a point of view using words as well as actions.</p> <p>Know how to use talk to organise, sequence and clarify my thoughts and ideas.</p>

<p>Know how to compare amounts, saying 'lots', 'more' or 'same'.</p> <p>Follow adult prompts to explore simple sensory properties of everyday materials.</p> <p>Begin to know how to make marks intentionally.</p> <p>Know how to use my fingers and other parts of my body to explore paint.</p> <p>Know how to manipulate and play with different materials.</p> <p>Know how to build with blocks of different shapes and sizes and make good choices based on their properties.</p> <p>Know how to make marks on a range of scales with a range of tools and grips.</p> <p>Know I can scribble freely and my scribbles will be valued.</p> <p>Know how to build a tower of five or six bricks.</p>	<p>making snips on paper with scissors.</p> <p>Know the names of familiar colours.</p> <p>I know how to compare sizes, weights etc. using gestures and language - 'bigger/little/smaller', 'high/low', 'tall', 'heavy' in everyday play.</p> <p>Know a little about how food changes during cooking and baking.</p> <p>Know some simple adjectives to explore properties of everyday materials.</p> <p>Know how to manipulate dough to make balls and snakes.</p> <p>Know how to pick up small items such as raisins or threads.</p>	<p>as moving a long plank safely, carrying large hollow blocks.</p> <p>Know how to use tweezers to complete a sorting task.</p> <p>Know how to thread small beads or complete a threading card.</p> <p>Identify patterns. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs' etc.</p> <p>Explore collections of materials with similar and/or different properties.</p> <p>I collect materials for a purpose.</p> <p>I know how to use cog, wheels and axles as part of a construction kit.</p> <p>Know colours can be used and mixed together.</p> <p>Know how to draw enclosed shapes.</p>	<p>Know how to use talk to engage others and to share my thoughts and experiences.</p> <p>Know how to use pincer movements to pick up small items.</p> <p>Know how to make healthy choices about food, drink, activity and tooth brushing.</p> <p>Know to use a comfortable grip with good control when holding pens and pencils.</p> <p>Know about 3D shapes and ascribe meaning to them.</p> <p>Know and use language of comparison when creating structures or arrangements that are longer, shorter, taller, wider than another.</p> <p>Explore and talk about different forces I can feel.</p> <p>Know how to use a water flow construction kit to build for a specific purpose.</p> <p>Know how to join materials for a purpose.</p>	<p>I know that objects can vary in size, length, weight and capacity.</p> <p>I know how to compare lengths by aligning and accurately identifying longer, shorter and taller.</p> <p>Know about the properties of some everyday materials.</p> <p>Know how to use remote control toys and how they work.</p> <p>Know how to use talk to organise play, assigning roles, directing others, choosing resources.</p> <p>Know what 'why' means, and how to ask 'why' questions.</p>	<p>Know how to cut on a line continuously.</p> <p>Know how to copy triangles, squares and other geometric shapes using a tripod grip.</p> <p>Answer questions in simple adult-led experiments.</p> <p>Know how to add increasing complexity and details to my drawing.</p> <p>Know which materials I should choose to develop my own ideas.</p>
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Reception
Skills and knowledge the children will develop

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2

Dismantle fruit and vegetables and describe what's inside.	Know how to begin articulating their ideas and thoughts in sentences.	Know how to use wax relief to scrape a picture.	Know how to articulate their ideas and thoughts in sentences.	Think about the perspective of others.	Process language which includes challenging adjectives, verbs and positional vocabulary in instructions.
Make veggie sculptures.	Ask questions to find out more using, 'How' and 'Why'.	Know how to use tracing paper to follow patterns, pictures and lines.	Know how to answer open ended or speculative questions.	Recall and define specialist vocabulary for the half term.	Know how to give instructions to others.
Know that things can be measured.	Know how to follow two step instructions.	Design with 2D shapes. Make 2D shapes out of other 2D shapes.	Know how to teach new skills to other verbally and by demonstration.	Know how to answer open ended or speculative questions.	Know and define specialist vocabulary for the half term
Know how to identify their own problems from interests and fascinations.	Know some specialist vocabulary for the half term in all subject areas.	Know that objects can be measured using non-standard units.	Know and define specialist vocabulary for the half term.	Know how to listen and process three step instructions.	Know they have to drink regularly.
Know how to hold a paint brush.	Know how to begin to use scissors effectively to cut straight lines.	Know how to fix and join with improved strength.	Know how to support my health in active learning and making healthy choices at lunchtimes.	Know how to use a variety of clay tools to make marks.	Know the properties of 2D and 3D shapes.
Know how to hold a scissors.	Know how to use scissors safely.	Know how to construct open ended models with Lego for a purpose and finger strength.	Know why vegetables are healthy.	Know how to use food technology tools to change the state of food stuffs and further build my finger strength.	Know how to build, compose and decompose shapes.
Ask questions and participate in adult narration or independent learning.	Know how to measure using taller and shorter.	Store class tools safely.	Designs with 2D shapes – addressing problems and properties.	Know how electricity works.	Compare length, weight and capacity.
Learn new and specialist vocabulary for the half term.	Know how to cut a picture into halves or quarters.	Know how to use tools for wood work such as a hammer and saw.	Know where vegetables come from.	Know how to make a bridge for an Ozbot.	Know the different equipment used to measure with.
	Know that buildings in our community are all different.	Know how to peel an orange or banana.	Know how to grow their own vegetables and eat them in recipes outdoor cooking.	Use natural items from the local environment to sculpt and build with	Know that things may not always be what you expect when you are experimenting but trying again is important. Show resilience is the face of challenge.
	Know how to blend colours with chalk.	Know fully how to use scissors to cut lines and circular bendy lines.	Know that different objects will make different textures when using paint.	Know what to use to fix and join these objects.	Know how to make a maze for an Ozbot.
	Know how to fold card or paper to make 3D shapes into decorations.	Recall and define specialist vocabulary for the half term.	Know how to manipulate clay.	Become and architect and design a home inspired by homes around the world.	Know how to mix a variety of colours from prime to decorate flags, bunting,
		Know that if I persevere I can tackle challenges.		Critically analyse landscapes from around the world reflecting different styles and use materials to explore the different effects.	Know how to tie dye fabric and understand where some natural dyes come from.
				Know that you can make things with clay to use.	

Southridge First School Design and Technology Curriculum Overview Key Stage 1 and 2

	Autumn 1 Mechanisms	Autumn 2	Spring 1 Structures	Spring 2 Cooking and Nutrition	Summer 1 Textiles	Summer 2 Electrical Systems
Y 1	Moving Storybook: Levers and Sliders Wheels and Axles		Windmills	Fruit and Vegetable Smoothie		
Y 2	Moving Monsters Ferris Wheels		Baby Bear's Chair	A Balanced Diet	Pouches	
Y 3	Pneumatic Toys		Castles	Eating Seasonally	Cushions	Static Electricity
Y 4	Slingshot Cars		Pavilions	Adapting a recipe	Fastenings	Torches

Four strands run through each topic:



Key stage 1	D&T Strands		Topics	
National Curriculum D&T subject content				
Pupils should be taught to :			Year 1	Year 2
Design purposeful, functional, appealing products for themselves and other users based on design criteria	Design		Moving Story books Windmills Wheels and Axles	Moving Monsters Baby Bear's Chair Pouches Ferris Wheels
Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology	Design		Moving Story books Windmills Wheels and Axles	Moving Monsters Baby Bear's Chair Pouches Ferris Wheels
Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]	Make		Moving Story books Windmills	Moving Monsters Baby Bear's Chair

		Wheels and Axles	Pouches Ferris Wheels
Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics	Make	Moving Story books Windmills Wheels and Axles Smoothies	Moving Monsters Baby Bear's Chair Pouches Ferris Wheels A Balanced Diet
Explore and evaluate a range of existing products	Evaluate	Moving Story books Windmills Wheels and Axles Smoothies	Moving Monsters Pouches Ferris Wheels A Balanced Diet
Evaluate their ideas and products against design criteria	Evaluate	Moving Story books Windmills Wheels and Axles	Moving Monsters Baby Bear's Chair Pouches Ferris Wheels
Build structures, exploring how they can be made stronger, stiffer and more stable	Technical Knowledge	Windmills	Baby Bear's Chair Ferris Wheels
Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.	Technical Knowledge	Moving Story Books Wheels and Axles	Moving Monsters Ferris Wheels

Cooking and Nutrition: Use basic principles of a healthy and varied diet to prepare dishes	Technical Knowledge	Fruit and Vegetable Smoothies	A Balanced Diet
Cooking and Nutrition: Understand where food comes from	Technical Knowledge	Fruit and Vegetable Smoothies	A Balanced Diet
Key stage 2	D&T Strands	Topics	
National Curriculum D&T subject content			
Pupils should be taught to:		Year 3	Year 4
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	Design	Eating Seasonally Pneumatic Toys Castles Cushions Static Electricity	Slingshot Car Torches Pavilions Fastenings Adapting a Recipe
Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design	Design	Pneumatic Toys Castles Cushions Static Electricity	Slingshot Car Torches Pavilions Fastenings
Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately	Make	Pneumatic Toys Castles Cushions Static Electricity	Slingshot Car Torches Pavilions Fastenings

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	Make	Eating Seasonally Pneumatic Toys Castles Cushions Static Electricity	Slingshot Car Torches Pavilions Fastenings Adapting a Recipe
Investigate and analyse a range of existing products	Evaluate	Pneumatic Toys Castles Cushions Static Electricity	Slingshot Car Torches Pavilions Fastenings Adapting a Recipe
Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work	Evaluate	Pneumatic Toys Castles Cushions Static Electricity	Slingshot Car Torches Pavilions Fastenings Adapting a Recipe
Understand how key events and individuals in design and technology have helped shape the world	Evaluate	Pneumatic Toys	Slingshot Car Torches
Apply their understanding of how to strengthen, stiffen and reinforce more complex structures	Technical Knowledge	Castles	Pavilions
Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]	Technical Knowledge	Pneumatic Toys	Slingshot Cars

Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]	Technical Knowledge	Static Electricity	Torches
Apply their understanding of computing to program, monitor and control their products	Technical Knowledge	Pneumatic Toys	Torches
Cooking and Nutrition: Understand and apply principles of a healthy and varied diet	Technical Knowledge	Eating Seasonally	Adapting a Recipe
Cooking and Nutrition: Prepare and cook variety of predominantly savoury dishes using a range of cooking techniques	Make	Eating Seasonally	Adapting a Recipe
Cooking and Nutrition: Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed	Technical Knowledge	Eating Seasonally	Adapting a Recipe

Overview of topics by year

Year 1	Food: Fruit and Vegetable Smoothie (4 lessons) Children learn how to identify fruits and vegetables and then design and make a smoothie.	Mechanisms: Moving Story Books (4 Lessons) Children explore levers and sliders to make a moving story book.	Structures: Windmills (4 lessons) Through the theme of windmills, pupils design and create their own structure and functioning windmill.	Mechanisms: Wheels and Axles (4 lessons) Pupils experiment with mechanisms and troubleshoot why some wheels don't rotate, before designing and building a moving vehicle.
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Cu rri cul u m co ver ag e	<p>Design Designing for others.</p> <p>Make Chopping fruit and vegetables. Making a smoothie.</p> <p>Evaluate Evaluating and adapting designs.</p> <p>Technical knowledge Describing and grouping fruits by texture and taste. Understanding the difference between fruit and vegetables.</p>	<p>Design Designing for others.</p> <p>Make Assembling accurately. Creating different movements (up, down, along and around).</p> <p>Evaluate Testing finished product.</p> <p>Technical knowledge Understanding what a mechanism is.</p>	<p>Design Designing for others.</p> <p>Make Assembling different components to work together to create motion. Assembling accurately. Cutting neatly.</p> <p>Evaluate Testing finished product.</p> <p>Technical knowledge Developing awareness of different structures for different purposes. Understanding how to turn 2D nets into 3D structures. Understanding what mechanisms are.</p>	<p>Design Designing Mechanisms.</p> <p>Make Adapting mechanisms. Measuring and cutting accurately. Following a design brief. Working to scale. Identifying materials commonly used for wheels.</p> <p>Evaluate Researching and testing mechanisms</p> <p>Technical knowledge Understanding how an axle works.</p>
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Overview of topics by year

Year 2	Food: A Balanced Diet (4 lessons) Pupils explore what makes a diet and taste test combinations of different food groups before designing and making a wrap.	Mechanisms: Moving Monsters (4 Lessons) Pupils analyse existing levers and linkage systems to identify components that they can use to plan, design and develop a mechanical monster.	Structures: Baby Bear's Chair (4 lessons) Pupils experiment with different shapes and manipulate materials to explore and evaluate a range of structural properties. They apply this knowledge to their own design, make and test task.	Textiles: Pouches (4 lessons) Children design and make their own wallet or purse, learning to use running stitch to join two pieces of fabric together.	Mechanisms: Ferris Wheels (4 lessons) Pupils explore existing mechanisms in order to design, test and make their own big wheel style ride.
Curriculum coverage	Design Designing packaging for their wrap. Make Preparing food safely and hygienically. Chopping safely using the bridge grip. Evaluate Conducting product research. Evaluating a design. Technical knowledge Understanding how fruit and vegetables grow. Knowing the food groups. Understanding what makes a balanced diet.	Design Creating and using design criteria, generating ideas. Planning for design and manufacturing. Make Cutting and assembling accurately. Selecting appropriate equipment and materials. Evaluate Choosing appropriate equipment and materials. Technical knowledge Carrying out primary research and applying to design. Technical knowledge Learning mechanical components. Identifying input and output.	Design Designing for others, using criteria and applying their knowledge of structures. Make Cutting and assembling accurately. Evaluate Examples of natural and manmade structures. Testing and evaluating. Technical knowledge Understanding the definition and importance of strength, stability and stiffness. Knowing that different shapes can strengthen or weaken structures that materials can be manipulated to improve strength and stiffness.	Design Considering purpose in the design process. Make Threading a needle. Sewing a running stitch. Preparing fabrics for sewing. Evaluate Discuss the making process and finished product. Technical knowledge Identify parts of a needle (point and eye). Understand the alternative ways of joining fabrics and embellishments.	Design Designing mechanisms. Make Measuring and cutting accurately, working to scale and following a design brief. Evaluate Testing and adapting mechanisms. Researching mechanisms. Technical knowledge Understanding how an axle works. Know materials commonly used for wheels.

Overview of topics by year

Year 3	Food: Eating Seasonally (4 lessons) Pupils learn about seasonality and about how the climate the food is grown in can alter the way it tastes. Make a crumble and tart using seasonal ingredients.	Mechanisms: Pneumatic Toys (4 Lessons) Pupils examine pneumatic systems using syringes and balloons then apply their understanding of mechanical systems to create their own pneumatic toys.	Structures: Castles (4 lessons) Pupils learn more advanced construction techniques and plan for complex arrangements of structures with continual emphasis on evaluating throughout.	Textiles: Cushions (4 lessons) Pupils learn to sew, cross stitch and applique and then apply this to the design and the creation of a cushion.	Electrical Systems: Static Electricity (4 lessons) Pupils are introduced to static electricity and observe the effects of it on different objects before designing and making a simple game which uses static electricity.
Cu rri cul u m co ver ag e	Design Designing to a criteria. Make Safely preparing fruit and vegetables. Follow a recipe. Evaluate Tasting and evaluating their desert. Technical knowledge Knowing what foods are in season and when. Understanding the benefits of foods by their colour. Knowing how climate alters the sweetness of foods.	Design Generating and communicating ideas using sketching and modelling, using the views of others to improve their designs. Make Selecting appropriate materials and equipment for functional and aesthetic purposes. Evaluate Assessing how well their product works and if it matches their design. Technical knowledge Understanding how pneumatic systems work.	Design Planning for manufacture. Establishing and using a design criteria to help focus and evaluate their work. Make Using more demanding practical skills (paper engineering/paper folding techniques). Evaluate Evaluating as they work. Evaluating their own and other's final product. Technical knowledge Application of prior knowledge and increasing knowledge of nets.	Design Designing for a purpose. Make Sewing, cross stitch and using applique. Evaluate Compare to designs. Technical knowledge Construction of cushions. Understanding that fabrics can be layered for effect. Knowing different stitch types.	Design Using design criteria to develop ideas. Make Using electrostatic energy to move objects in isolation as well as part of a system. Evaluate Evaluate and adapt designs. Technical knowledge Understanding what static electricity means and how to generate it. Knowing what a target audience is.

Overview of topics by year

Year	Food: Adapting a Recipe (4 lessons) Pupils adapt a recipe by adding or altering the ingredients and then work in groups to create a final design that fall within a set budget and design brief.	Structures: Pavilions (4 Lessons) In an introduction to pavilion architecture pupils experiment with frame structures before designing their own landscape and pavilion, using a wider range of materials and construction techniques.	Textiles: Fastenings (4 lessons) Pupils research different types of fabric fastening before deciding which they want to use in their design for a book sleeve.	Electrical Systems: Torches (4 lessons) Pupils are introduced to electricity and electrical safety before making a simple electrical circuit to create a functioning torch.	Mechanisms: Slingshot Cars (4 lessons) Pupils use kinetic energy to power slingshot cars, designing and making their own and then testing their effectiveness in time trials.
Cu rri cul u m co ver ag e	Design Working within a design brief. Make Following but adapting a recipe. Preparing food hygienically. Evaluate Discuss flavours identified. Technical knowledge Understanding the costs behind professional food preparation. Understanding the factors that contribute to the product design.	Design Exploring and designing within a given context/theme. Make Using a range of materials and equipment to create frame structures. Evaluate Discuss existing pavilions. Technical knowledge Knowing what a pavilion is. Building on prior knowledge of net structures and broadening knowledge of frame structures. Knowing that architects consider light, shadow and patterns when designing.	Design Designing for others and planning production. Make Selecting suitable tools. Evaluate Researching existing products. Technical knowledge Understanding stitches and their benefits. Knowing how to use templates.	Design Designing for others. Make Creating neatly presented work. Making an electrical circuit. Evaluate Evaluating to improve their work. Testing their final products. Technical knowledge Electricity is energy. Batteries are used to store electricity. Know terminology of: insulator, conductor, L.E.D., battery, coin cell batteries.	Design Developing designs using the views of others to improve them. Using nets and tabs to design and make the car body. Make Measuring, marking, cutting and assembling accurately. Evaluate Testing products in time trials. Technical knowledge Component names (chassis, axle etc.) Car body shape can impact speed (air resistance).