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Year 1	Autumn 2	Spring 1	Summer 1
Lead Enquiry Question **(Composite Outcome)**	**Healthy smoothies**	**Hand Puppet**	**Tudor house structure**
Spirituality – (Community, Dignity) encouraging our pupils to reflect upon their learning and its impact on themselves and others – Look in, look out, look up. **Hope** – (Hope) providing aspirational opportunities **Inspiring** – (Hope, Wisdom) developing pupils' resilience and motivation **Nurture** – (Dignity) caring and growing ourselves, others and God's creation **Environment** – (Community) developing an awareness of our local, national and international community	**Spirituality** – children reflect on the importance of food in our lives and how it connects us to others **Hope** – hope for a more sustainable future **Inspiring** – build confidence to provide for themselves, create their own food and their role in making healthy choices **Nurture** – making choices that nurture their bodies and well-being **Environment** – reflecting on their creation and how their food choices can impact the world for both health and environment	**Spirituality** - Hand puppets have been used in many cultures for storytelling, including religious and moral tales. **Inspiring-** Hands-on making encourages innovation and problem-solving, inspiring future creativity in textiles. **Environment** – Teaches children to value handmade, durable items over disposable ones.	**Spirituality** - Encourages reflection on how people in the past lived and what we can learn from their way of life. **Hope** – Reflecting on how improvements can make structures stronger, just like changes made after the Great Fire. **Inspiring-** Seeing their ideas come to life builds confidence and excitement for making things. **Nurture-** Hands-on learning fosters patience, perseverance, and pride in their creations. **Environment** – Learning about Tudor houses connects children to Britain's architectural history and the impact of the Great Fire of London on shaping safer building regulations.
Learning Threads **(Substantive Concepts)**	**Cooking and nutrition – Smoothie** **Design / Make / Evaluate**	**Textiles – Hand puppet** **Design / Make / Evaluate**	**Structure** **Design / Make / Evaluate**
Disciplinary Knowledge	Understand the difference between fruit and vegetables. Describe and group fruits by textures and taste. Design a smoothie. Chop fruit and vegetables safely. Identify if a food is a fruit or a vegetable.	Understanding how textiles are used to make products. Recognising how materials and designs have changed over time. Developing skills in drawing and planning before making a product.	Understanding purpose – Recognising that houses are designed for shelter and safety. Exploring existing products – Identifying features of Tudor houses and comparing them to modern buildings.

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	Understand where and how fruits and vegetables grow. Tasting and evaluating different food combinations. Describing appearance, smell and taste.	Learning basic joining techniques (e.g., sewing vs. gluing). Developing problem-solving skills when making design choices. Encouraging resilience when learning new practical skills (e.g., threading a needle). Evaluating finished products and suggesting improvements.	Generating ideas – Creating simple sketches and labels to plan their own Tudor house. Using tools and techniques – Cutting, shaping, joining, and assembling materials to build a structure. Evaluating strengths and weaknesses – Identifying what worked well and what could be improved.
Other designers throughout history	Stephen Poplawski – Invented the first blender in the 1920s, making smoothies possible. His design revolutionized how fruits and liquids could be combined.	Jim Henson (creator of The Muppets and Sesame Street characters).	Italian Renaissance Artists – Craftsmen and designers from Italy introduced decorative elements seen in Tudor buildings during Henry VIII's reign (e.g. Hampton Court Palace). Look at Hardwick Hall, built during Elizabeth I's reign.
Vocabulary	Fruit and vegetables names, names of equipment and utensils, sensory vocabulary e.g. soft, juicy, crunchy, sweet, sticky, smooth, sharp, crisp, sour, hard flesh, skin, seed, pip, core, slicing, peeling, cutting, squeezing, healthy/ balanced diet, choosing, ingredients	design, stitch, seam, felt, thread, needle, template, embellishment, puppet, textiles, running stitch,	Timber frame, wattle and daub, JETTY/overhanging, thatched roof, structure, materials, design, evaluate, flammable

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LCs **(Components)** **Assessment check points in green**	1) Can I identify if a food is a fruit or vegetable? Can children correctly categorise each as a fruit or vegetable? 2) Can I understand where and how fruits and vegetables grow? Can the child identify where fruits and vegetables might be grown from a list of options? 3) Can I describe and group fruits and existing smoothies? **(use this lesson to create a design criteria)** Can the child list several fruits in each group: citrus, berry, tropical? 4) Can I design a smoothie for myself? Can the child explain their choice for the smoothie? 5) Can I make a smoothie safely? Can the child follow proper safety procedures, such as handling utensils correctly and carefully?	1) Can I understand what hand puppets are, their history, and their purpose? Can children describe what puppets are and their purpose? 2) Can I plan and design a puppet character using a simple template? Can children create a clear design with colours and features? 3) Can I cut felt accurately and begin assembling pieces? Can children cut out shapes with some accuracy? 4) Can I use simple sewing techniques (running stitch) to join the puppet? Can children complete simple stitches with support? 5) Can I reflect on my work and use my puppets to tell a story? Can children reflect on their work and suggest improvements?	1)Can I identify the key features of a Tudor house and compare them with a modern house? Can they identify and describe at least **two** key features of a Tudor house? 2) Can I design a model Tudor house with key historical features? Can they name at least **two** materials used in Tudor houses? 3-4) DOUBLE LESSON Can I build a model Tudor house using chosen materials? Does their design include Tudor house features? Have they considered how they will join materials together? Have they built a structure that resembles a Tudor house? 5) Can I evaluate my own and others' Tudor house models? Can the child describe **one** thing they like about their own or a peer's model? Can they suggest **one** improvement for their model?

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	6) Can I evaluate my smoothie design and end product? Can the child explain what they like and what they would change from their final smoothie?		
At a distance assessment	**Design, make and evaluate a recipe.**	**Explore different joining and sewing techniques.**	**Explore and evaluate simple joining techniques.**

Year 2	**Autumn 2**	**Summer 1**	**Summer 2**
Lead Enquiry Question **(Composite Outcome)**	**Cooking/Nutrition- Mince Pies**	**Textiles – Carnival masks**	**Structure – Carnival floats**
Spirituality – (Community, Dignity) encouraging our pupils to reflect upon their learning and its impact on themselves and others – Look in, look out, look up. **Hope** – (Hope) providing aspirational opportunities **Inspiring** – (Hope, Wisdom) developing pupils' resilience and motivation **Nurture** – (Dignity) caring and growing ourselves, others and God's creation **Environment** – (Community) developing an awareness of our local, national and international community	Spirituality- Understanding how traditions like mince pies connect us to others in our community and past generations. Hope- Reflects personal preferences and how we consider others' needs when designing for a purpose (e.g., sharing with family, gifting).	Spirituality- Explores Brazilian cultural traditions, encouraging respect and curiosity about other communities Hope- Planning a unique design gives pupils ownership of their work and shows that their ideas matter.	Spirituality- Explores Brazilian cultural traditions, encouraging respect and curiosity about other communities Hope- Planning a unique design gives pupils ownership of their work and shows that their ideas matter.

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	Inspiring- Builds resilience and motivation as children work step-by-step to create something real and meaningful. Nurture- Promotes care and responsibility for themselves and others through safe food handling and preparation. Environment- Children see how food brings people together and contributes to social well-being.	Inspiring- Encourages resilience as pupils learn and practice new techniques, even when it's tricky at first and applying their skills in a creative project fosters motivation, confidence, and a sense of achievement. Nurture- Builds fine motor skills and care in working with materials, teaching pride in craftsmanship and promotes patience, precision, and teamwork when working on or alongside others. Environment- Celebrates global diversity and connects children to international traditions in a joyful, creative way.	Inspiring- Encourages resilience as pupils learn and practice new techniques, even when it's tricky at first and applying their skills in a creative project fosters motivation, confidence, and a sense of achievement. Nurture- Builds fine motor skills and care in working with materials, teaching pride in craftsmanship and promotes patience, precision, and teamwork when working on or alongside others. Environment- Celebrates global diversity and connects children to international traditions in a joyful, creative way.
Learning Threads **(Substantive Concepts)**	Cooking and nutrition – mince pies Design / Make / Evaluate	Textiles – Carnival masks Design / Make / Evaluate	Structure – Carnival floats Design / Make / Evaluate
Disciplinary Knowledge	Pupils understand that food has a historical and cultural context. Pupils develop knowledge of basic food preparation	Investigating and understanding basic sewing techniques: reviewing running stitch and practicing backstitch and overstitch	Design a purposeful, functional, appealing product Select from and use a range of tools and equipment to perform practical tasks

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	techniques such as chopping, grating, and mixing. Pupils learn that design involves making decisions to meet a specific purpose or user. Pupils apply practical skills to follow a simple recipe and use equipment safely. Pupils learn to reflect on their work by comparing what they made to what they planned.	Selecting appropriate stitches for a specific purpose Developing fine motor skills and tool-handling competence Researching and evaluating existing products for inspiration and function Sketching and labelling designs by making choices about materials, size, and embellishments Applying taught sewing techniques accurately and safely Cutting and assembling materials Using tools with increasing independence Reflecting on their work and comparing it to the original design brief by identifying what worked well and what could be improved	Select from and use a wide range of materials and components Evaluate and explore a range of existing products Build structures, exploring how they can be made stronger, stiffer and more stable Explore and use mechanisms [wheels and axles], in their products
Other designers throughout history	Oblong "Manger" Shape Early mince pies were rectangular or oval, symbolizing	Clóvis Bornay (1916–2005) -designer who created elaborate costumes for Rio Carnival. Rosa Magalhães	Terence Conran (1931-2020) Started his career in design by making a model for the festival of Britain.

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	the manger where Jesus was born. Wealthy families in Tudor and Stuart times used intricate pastry patterns.	One of the most celebrated Carnival designers and parade directors in Rio.	Fernando Pamplona (1926–2013) Sylvio Cielo A contemporary float designer and structural engineer for samba schools.
Vocabulary	Ingredient, pastry, filling, dried fruit, spices, chopping, grating, mixing, peeling, measuring, baking, hygiene, design, purpose, user, evaluate, tradition, origin	Design, stitch, seam, thread, needle, knot, template, embellishment, carnival mask, textiles, running stitch, backstitch, overstitch	Chassis, axle, frame, design, join, saw, wheel
LCs **(Components)** **Assessment check points in green**	C1: Can I research the history of mince pies? Can explain what a mince pie is and how it has changed over time C2: Can I research ingredients and cutting/chopping methods? (taste-testing and grating/chopping/etc.) Can use appropriate sensory vocabulary to give opinions about flavours and fillings C3: Can I design a mince-pie for a purpose? Make choices about their design with an intended user in mind	C1: Can I research and use different sewing techniques? (review running stitch, practice backstitch and overstitch) Can use the running, backstitch and overstitch with support C2: Can I research existing carnival mask designs and plan my own design? Can use technical vocabulary to describe existing products and give their opinions Can design a carnival mask that fits the design criteria C3: Can I make a carnival mask applying taught stitching	C1: Can I compare a variety of vehicles? Say what they like about designs and how the wheels are attached C2: Can I design a moving vehicle that is suitable for the Rio Carnival? Create a labelled design for a carnival float C3: Can I use tools safely to create my vehicle? Cut, join and decorate float C4: Can I evaluate my finished product?

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	C4: Can I make a mince pie? Apply chopping, peeling, and grating skills appropriately when preparing their mince pie C5: Can I evaluate my mince pie against my initial design plan? Reflect on their final mince pie considering their plan and intended user	techniques? Can thread a needle and apply previous knowledge of running stitch with confidence Can use a template to cut a mask from fabric Can apply learnt stitches to their carnival mask designs to add detail and join fabrics and embellishments C4: Can I evaluate my final product against my design? Can reflect on their final product against their design criteria	Can reflect on their final product against their design criteria
Assessment at a distance	What were the key ingredients and skills needed to make a mince pie?	What stitches did you use to join your mask?	What techniques did you use to build your float?

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Year 3	Autumn 1	Spring 1	Summer 1
Lead Enquiry Question (Composite Outcome)	Construction – creating a Stone Age shelter.	Cooking – creating a seasonal savoury tart	Moving mechanisms -create a moving flag for a boat.
Spirituality – (Community, Dignity) encouraging our pupils to reflect upon their learning and its impact on themselves and others – Look in, look out, look up. **Hope** – (Hope) providing aspirational opportunities **Inspiring** – (Hope, Wisdom) developing pupils' resilience and motivation **Nurture** – (Dignity) caring and growing ourselves, others and God's creation **Environment** – (Community) developing an awareness of our local, national and international community	**Spirituality** - Encourages reflection on how people in the past lived and what we can learn from their way of life. **Hope –** Visiting an iron age settlement – Carn Euny	**Nurture** – making choices that nurture their bodies and well-being	Inspiring – being inspired to build on the ideas and creations of others **Environment –** Local environment involving ships and raising flags to communicate with others
Learning Threads **(Substantive Concepts)**	**Structure** **Design / Make / Evaluate**	**Cooking and Nutrition** **Design / Make / Evaluate**	**Mechanisms** **Design / Make / Evaluate**
Disciplinary Knowledge	**Understanding Purpose –** Recognising how Stone Age people designed shelters to meet their needs (e.g. protection, warmth, durability). **Material Selection –** Choosing appropriate materials based on their properties (e.g. wood for strength, animal skins for warmth, clay for insulation).	**Understanding Seasonality –** Recognising that certain foods grow at specific times of the year and how this affects availability and taste. **Benefits of Seasonal Foods –** Exploring why seasonal ingredients are fresher, tastier, more sustainable, and often cheaper.	**Understanding Mechanisms –** Learning about the pivot mechanism (a simple rotating point that allows movement), and how it can be used to create flags that move. **Purpose of Nautical Flags –** Understanding the historical and practical use of flags, particularly nautical flags (e.g., signalling ships with specific messages).

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	Joining Materials – Learning how to connect materials using natural methods (e.g. weaving, tying with twine, using mud as a binder). **Building Stability** – Understanding how shelters stay strong against wind and rain by reinforcing structures. **Testing Strength & Stability –** Assessing if the shelter can stand upright and withstand weight. **Reflection & Improvement –** Identifying strengths and areas for improvement (e.g. "I could use more layers of thatching for better waterproofing"). **Eco-Friendly Design –** Recognising how Stone Age people used natural and renewable materials. **Minimal Waste –** Understanding how early humans used all parts of resources (e.g. bones for tools, hides for covers). **Impact on the Environment –** Discussing how using natural materials affects nature compared to modern materials like plastic or concrete.	**Food Preparation Techniques –** Developing chopping, peeling, grating, mixing, and rolling skills safely. **Hygiene & Safety –** Understanding the importance of hand washing, safe knife use, and cleaning work areas. **Taste & Texture Testing –** Describing the final tart's flavour, texture, and appearance. **Improvements & Adaptations –** Identifying ways to improve the tart (e.g. "Next time, I would add more seasoning" or "I could make the pastry thinner").	**Creating a Pivot Mechanism –** Understanding how to attach a flag to a pivot point using simple tools (e.g., paper fasteners or small dowels). **Basic Construction Techniques –** Cutting and shaping materials for the flag, ensuring it's durable and light enough to move with the pivot. **Assessing Design –** Reviewing if the flag is easily recognizable and if it represents the student's initials clearly. **Improvements & Adjustments –** Thinking about how to improve the design, such as making the flag more visible or adjusting the pivot for smoother movement. **Linking Design to Function –** Recognising that the design should work practically, with the flag able to spin or rotate freely on the pivot point. **Simple Mechanical Systems –** Learning about basic

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			mechanical systems and how they can be used in everyday objects.
Other designers throughout history	Norman Foster Designed eco-friendly emergency shelter prototypes using lightweight, recyclable materials for disaster zones. Shigeru Ban Japanese architect famous for Paper Log Houses—temporary shelters made from recycled paper tubes for disaster relief.	Tom Hovey, a Bristol-based illustrator. He is the artist behind the colourful, detailed illustrations on 'The Great British Bake Off' of contestants' planned bakes that appear on screen before the actual creations are revealed.	James Dyson, designed the Wheelboat which could travel at speeds of 64 kilometres per hour (40 mph) on land and water Francis Hopkinson (United States) Credited with designing the first official U.S. flag adopted by Congress in 1777.
Vocabulary	Hut, Neolithic, Sustainable, Wattle and daub, Thatch, Stability, Foundation, Framework Authenticity, Joining techniques, Binding, Fastening, Securing, Attachment, Securing, Covering, Finishing touches, Evaluation criteria, Assessment, Function, Durability	Seasonal, nutritious Ingredient, Texture, Flavour, Savoury, Pastry, Filling, Chopping, Recipe, Method, Bake, Golden brown Evaluate, Presentation, Aroma, combination	Hull, Mast, Sail, Flag, Mechanism, Split pin, Template, Structure, Fasten, Component, Design, Nautical, Emblem, Aesthetic, Finishing touches, Evaluation criteria,
LCs **(Components)**	**C1: Introduction and research -** Explore how Stone Age people designed and used tools, shelters, and everyday items. Can identify and	**C1: Tasting and exploring winter ingredients.** Discuss what seasonal winter food means. Explore and taste test different ingredients (e.g. cheese, leeks, potatoes, spinach).	**C1: Can I design with purpose?** Draw and label my design Decide upon the equipment needed

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	explain materials used by Stone Age people for tools and shelters. C2: **Design challenge: build a Stone Age shelter** - Create a design for a model Stone Age shelter. Can describe different tools, shelters, and everyday items used by Stone Age people. Can create a labelled design for a model Stone Age shelter and explain material choices based on historical accuracy and availability. C3: **Making the Shelter (Part 1) -** Use natural and recyclable materials to construct a model Stone Age shelter. Can use basic construction techniques safely and effectively. C4: **Making the Shelter (Part 2) -** Complete the shelter with finishing touches and ensure stability. Can ensure the model is stable and well-structured. C5: **Evaluation and Improvements** - Evaluate the effectiveness of the shelter and suggest improvements. Can reflect on their design and construction process, explaining what worked well and what could be changed.	Describe the flavours (e.g. sweet, salty, bitter). Rank ingredients by preference and suitability for a bike ride (easy to carry, not too messy). I can explain what "seasonal winter food" means in simple terms. **C2: Investigating Tarts and Designing Our Own**. Look at different savoury tarts (photos, samples, or videos). Discuss shapes, crust types, and filling combinations. Think about bike ride suitability (sturdy, not too crumbly, easy to hold). Design a tart: Draw a labelled diagram, choosing pastry and filling ingredients I can design a tart by drawing and labelling pastry and filling ingredients. **C3: Develop food preparation and pastry skills.** Practise key skills: chopping, grating, mixing, rolling pastry. Learn safe knife use (with supervision). Taste mini versions of their filling (e.g. mixing cheese and vegetables) and make improvements. Adjust recipes based on taste feedback. I can chop, grate, mix, and roll pastry with some independence. **C4: Follow a recipe to make and bake the tart.** Work in groups to prepare pastry, filling, and assemble	Show a good understanding of opportunites for design Able to draw out a well thought out design and identify opportunities to innovate. **C2: Can I create a boat for the River Fal?** Make products by working efficiently Select appropriate materials Refine my techniques throughout the project to improve the design. Able to select appropriate materials and use tools safely. **c3: Can I add features that** follow my design process and add individual flair? Can refine techniques throughout the project to improve design. C4: **Can I evaluate my design?** Explain what went well Even better if Reflecting on the design and construction process

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		their tarts. Bake with adult help. Check if their tart matches their design. Smell and observe the final product, ready for tasting. I can follow step-by-step instructions with my group. **C5: Taste, review, and improve the tart design.** Taste test their tarts and describe flavours and textures. Check if the tart was easy to hold, not too messy, and tasty for a bike ride. Complete an evaluation sheet: What went well? What would they change? Share their feedback with the class and suggest improvements for next time. I can describe how my tart tastes and feels (texture + flavour).	explaining what went well and what could be changed.
Assessment at a distance	Vocab meaning assessment	Vocab meaning assessment	Vocab meaning assessment
Year 4	**Autumn 2**	**Spring 2**	**Summer 2**
Lead Enquiry Question **(Composite Outcome)**	**Textiles - Hand weaving Christmas decorations**	**Inspired by designers – Lighthouse (Robert Stevenson)**	**Inspired by designers – Lighthouse (Robert Stevenson)**
Spirituality – (Community, Dignity) encouraging our pupils to reflect upon their learning and its impact on themselves and others – Look in, look out, look up.	Spirituality – reflect on the Christmas Story and the meaning of presents.	Inspiring – being inspired to build on the ideas and creations of others.	Nurture – how to nurture our health through eating healthily

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Hope – (Hope) providing aspirational opportunities **Inspiring** – (Hope, Wisdom) developing pupils' resilience and motivation **Nurture** – (Dignity) caring and growing ourselves, others and God's creation **Environment** – (Community) developing an awareness of our local, national and international community			Environment – learning about ethical considerations in jewellery production.
Learning Threads **(Substantive Concepts)**	Textiles Design, make and evaluate	Inspired by designers Electrical systems Structure Design, make and evaluate	Textiles Inspired by designers Design, make and evaluate
Disciplinary Knowledge	• **Techniques & Processes**: Understanding and applying different weaving techniques such as plain weave, twill, and basket weave using various materials (e.g., paper, fabric, yarn). • **Material Selection**: Experimenting with different textures, weights, and colours of materials to understand their impact on the final piece. • **Critical Thinking & Evaluation**: Observing and	• **Electrical Systems**: Understanding how a simple circuit works, including how to connect a battery, wires, and a lightbulb to create a functioning lighthouse light. • **Material Selection & Properties**: Exploring how papier-mâché can be layered to create a strong and stable structure, and selecting appropriate materials for durability and aesthetics.	**Material Properties** Understand different materials used in jewelry (e.g., metals, beads, wire, recycled items). Explore properties such as durability, flexibility, weight, and aesthetic appeal. **Design Principles** Learn about balance, symmetry, proportion, and pattern in jewelry design.

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	discussing examples of weaving in different cultures and historical contexts, then reflecting on their own work to refine and improve it. • **Precision & Control**: Developing fine motor skills to manipulate materials accurately, ensuring neatness and consistency in weaving patterns. • **Problem-Solving**: Recognising and overcoming challenges in the weaving process, such as tension control and pattern alignment. • **Artistic Intent & Expression**: Making creative choices in design, colour, and texture to communicate ideas or themes through weaving.	• **Structural Design & Stability**: Planning and constructing a sturdy lighthouse shape that can support the electrical components and remain upright. • **Problem-Solving & Iteration**: Identifying and addressing challenges such as ensuring the lightbulb is securely positioned and the structure is balanced. • **Artistic & Functional Design**: Applying paint and textures to create a realistic or imaginative lighthouse while considering both appearance and function. • **Evaluation & Refinement**: Reflecting on their design choices, testing the effectiveness of the light, and making improvements based on feedback.	Understand how color, texture, and shape influence visual impact. **Techniques & Processes** Practice basic jewellery-making techniques: Threading and stringing beads Wire bending and shaping Fastening and joining methods (e.g., knots, crimps, clasps) Experiment with embellishment techniques (e.g., adding charms, layering). **Tool Handling & Safety** Use tools like pliers, cutters, and bead needles safely and effectively. Follow safety rules for handling small parts and sharp tools. **Cultural & Historical Context** Explore jewelry traditions from different cultures and historical periods.

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			Discuss how jewelry reflects identity, status, and symbolism. **Evaluation & Reflection** Assess designs against criteria (functionality, aesthetics, durability). Suggest improvements and explain design choices. **Sustainability Awareness** Understand the importance of using recycled or eco-friendly materials. Discuss ethical considerations in jewelry production.
Other designers throughout history	Anni Albers (1899–1994) A leading figure at the Bauhaus School, she transformed weaving into a respected art form. Sheila Hicks, American artist born in 1934, famous for vibrant, sculptural textiles using handlooms.	John Smeaton (1724–1792) Known as the "Father of Civil Engineering". Designed the Eddystone Lighthouse (1759) using interlocking stone blocks. Robert Stevenson (1772–1850) A Scottish civil engineer who designed many iconic lighthouses in Scotland. Famous works include Bell Rock Lighthouse (1811)	René Lalique (1860–1945) A master of Art Nouveau jewelry, famous for nature-inspired motifs like dragonflies and flowers. Benvenuto Cellini (1500s) Renaissance goldsmith and sculptor known for intricate metalwork and gemstone settings. Cartier (Founded 1847) Tiffany & Co. (Founded 1837)

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Vocabulary	Weaving, yarn, durability, knots, thread, technique, pattern, looping	Design, evaluate, engineer, architect, circuit, materials, components, structure, current, mechanism	clasp, crimp, gauge, wire, bead, pendant, symmetry, pattern, aesthetic, embellishment, proportion, texture, motif.
LCs **(Components)** **Assessment check points in green**	Can I set up a simple loom for hand weaving? Can I use colour and thread thickness to enhance my weaving design? Can I create a basic weave using over-under techniques? Explain how to prepare a loom to the rest of their group. Share their woven sections with classmates to check for consistency and accuracy in their technique. Can I experiment with different weaving patterns to create texture and design? Explain their choices of colour and thread thickness, discuss how these elements contribute to the texture, pattern, and style of their work.	Can I research and explain the purpose of lighthouses in history and today? Compare and contrast lighthouses from different historical periods and discuss how their purpose or design might have changed over time. Can I identify materials suitable for creating a lighthouse structure? Test small samples of different materials (e.g., wetting cardboard, bending paper) to assess how they might work for the lighthouse structure. Can I design a lighthouse with clear features, such as a base, tower, and light room?	Can I make a Viking inspired piece of jewellery? Research jewellery traditions from different cultures and historical periods. Compare and contrast different jewellers. Learn basic jewellery-making techniques: Threading and stringing beads Wire bending and shaping Fastening and joining methods. I can thread and string beads, bend and shape wire and use fasten and joining methods. Learn about balance, symmetry, proportion, and patterns in jewellery design. Understand how color, texture, and shape influence visual impact.

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		Can I include design details inspired by real lighthouses around the world? Can I add a working electrical light system to my lighthouse? Can I describe how I overcame challenges during the project?	Explain their choices of design, colour and shape.
At a distance assessment	Explain how my choices affect the texture, pattern, and overall design of my weaving	Explain the purpose of lighthouses in the past and today, compare examples and changes from different time periods	Explain how the Vikings used jewellery-making skills to make jewellery, and explain choices of colours and shapes that link to those techniques

Year 5	**Autumn 1**	**Spring 1**	**Summer 1**
Lead Enquiry Question **(Composite Outcome)**	Microbits – Polar Animal Tracker project	Cam Toys – Animal Automata	Cooking: Thali plate
Spirituality – (Community, Dignity) encouraging our pupils to reflect upon their learning and its impact on themselves and others – Look in, look out, look up. **Hope** – (Hope) providing aspirational opportunities **Inspiring** – (Hope, Wisdom) developing pupils' resilience and motivation	**Spirituality (Community, Dignity)** We reflect on how our designs can care for others and respect all of God's creation	**Spirituality (Community, Dignity)** – Encouraging pupils to reflect on how creativity and engineering impact daily life. **Hope (Aspirational Opportunities)** – Helping pupils see how innovation	**Spirituality** – (Community, Dignity) Encouraging our pupils to understand the concept of **Thali**, and how it is deeply spiritual, reflects balance, nourishment, and gratitude. **Hope** – (Hope) providing aspirational opportunities. It brings people together,

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Nurture – (Dignity) caring and growing ourselves, others and God's creation **Environment** – (Community) developing an awareness of our local, national and international community	**Hope (Hope)** We believe that our ideas and skills can help solve real-world problems **Inspiring (Hope, Wisdom)** We show resilience and wisdom by learning from mistakes and improving our work **Nurture (Dignity)** We care for ourselves, others, and all living creatures through thoughtful design **Environment (Community)** We understand our role in protecting the planet and working together as a global community	and engineering open doors to future careers and creative possibilities. **Inspiring (Hope, Wisdom)** – Building resilience by encouraging problem-solving, perseverance, and motivation when refining their automata. **Environment (Community)** – Encouraging the use of sustainable materials and fostering awareness of how mechanics and design influence local, national, and global communities.	creates opportunities for learning, and preserves traditions. **Inspiring** – (Hope, Wisdom) developing pupils' resilience and motivation. Cooking is an **act of resilience**—Indian cuisine has evolved through centuries of change while holding onto its wisdom. **Environment** – (Community) Indian cooking emphasizes **seasonal, locally sourced ingredients**, connecting to sustainability.
Learning Threads **(Substantive Concepts)**	**Electrical systems** **Structure** **Design, make and evaluate**	**Mechanisms** **Structure** **Design / Make / Evaluate**	**Cooking and Nutrition** **Design, make and evaluate**
Disciplinary Knowledge	**Lesson 1: Introduction to Animal Tracking and micro:bit** *Research and develop design criteria, explore existing products and technologies* **Lesson 2: Programming the Animal Tracker** *Apply technical knowledge to program a functional product,*	**1. Understanding Automata & Planning a Design** Understanding how cams, axles, and linkages create movement and how simple machines (cams, levers) work. Planning and designing a moving model.	**Geography and Culture**: • Learn that a thali is a traditional meal in India with a variety of foods. • Different regions in India have different foods on their thali (e.g., rice, dal, roti, vegetables, chutney).

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	develop ideas through technical skills **Lesson 3: Designing and Building the Tracker Casing** *Generate, develop, model and communicate ideas; select appropriate materials and tools; make a quality prototype/product* **Lesson 4: Testing, Evaluating, and Presenting the Tracker** *Investigate and analyse existing products; evaluate own ideas and products against design criteria*	**2. Creating the Basic Frame & Cam Mechanism** Building a strong and stable frame. Cutting and assembling cams, axles, and supports. Measuring materials accurately for precise assembly. **3. Attaching the Animal & Refining Movement** Understanding how movement transfers from the cam to the animal. Connecting parts to move smoothly. Adjusting parts for better function. **4. Decorating & Presenting the Automata** Using colours, textures, and materials to enhance appearance. Explaining how the automata works. Discussing what worked well and what could be improved.	**Science (Food and Nutrition)**: • Learn about basic spices used in cooking, like cumin, turmeric, coriander, and cardamom. • Understand that spices are used for flavour and also have health benefits (e.g. turmeric is anti-inflammatory). **Cooking Skills**: • Learn basic cooking techniques like boiling, sautéing, and mixing ingredients to create a thali. • Understand how to combine different foods (e.g., dal, rice, and vegetables) to create a balanced meal. **Evaluating:** • Tasting and evaluating the final product.

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Other designers throughout history	Wildlife Computers Specializes in satellite and archival tags for marine animals (e.g., seals, turtles, sharks). Known for rugged, waterproof designs that withstand harsh environments. The WWF logo (the panda) was originally designed by Sir Peter Scott in 1961. Patrick Garaude is the French artist credited with creating the iconic Greenpeace logo in the early 1980s.	Jacques de Vaucanson (1709–1782) Pierre Jaquet-Droz (1721–1790) Swiss watchmaker who built intricate automata like The Writer, The Draughtsman, and The Musician. Leonardo da Vinci (1452–1519) Designed a mechanical knight automaton in the late 15th century.	Samuel Groves- founded: 1817- premium cookware designs. Elephant Design- One of India's leading design studios. Created packaging for Tata Raasa, a brand offering authentic Indian ready-to-eat meals for global markets.
Vocabulary	Technical and Computing Vocabulary: micro:bit, accelerometer, transmitter, receiver sensor, data, code / coding, program / programming, algorithm, input, output, radio signals Design and Technology Vocabulary: prototype, design criteria, evaluate / evaluation, functionality, durability, waterproof, insulation, impact, resistance, lightweight materials (properties: flexible, rigid, absorbent, etc.), assembly, structure	Automata, cam, follower, axle, linkage, lever, mechanism, prototype, structure, assemble	Thali, dal, roti, sabzi, chutney, tadka, ghee, cumin, coriander, turmeric, cardamom, sautéing, boiling, fusion cooking, regional cuisine, nutritional balance
LCs **(Components)**	**Lesson 1: Introduction to Animal Tracking and micro:bit - Can I investigate how tracking a penguin**	Understand what automata are and how they work? Can I plan an	Understand what a "thali" is and learn about the different foods in a traditional Indian thali.

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Assessment check points in green	**could help scientists, and explore how technology (micro:bit) can be used in a product?** *(D&T focus: Research and develop design criteria, explore existing products and technologies)* ACP: Explain why tracking penguins is important for conservation and describe one way a micro:bit could help **Lesson 2: Programming the Animal Tracker - Can I design and write a program that collects and sends movement data like a penguin tracker?** *(D&T focus: Apply technical knowledge to program a functional product, develop ideas through technical skills)* ACP : Create a basic program that collects movement data using the accelerometer and sends it to another micro:bit **Lesson 3: Designing and Building the Tracker Casing - Can I design, select materials, and create a protective case that would keep a penguin's tracker safe in ice, water, and snow?** *(D&T focus: Generate, develop, model and communicate ideas; select appropriate materials and tools; make a quality prototype /product)* ACP: Design a tracker casing that meets key design criteria	automata animal design? ACP: Design an automata animal design Create the basic frame and cam mechanism of the automata ACP: Assemble the box frame insert the axle Attach the animal figure to the mechanism and refine movement? ACP: Attach the animal figure to the cam mechanism Decorate and present the automata animals Decorate the automata with appropriate materials	Name 5 foods that could be on a thali Learn about basic Indian spices. Identify and name 3 key spices Make a simple thali using what we've learned: dal, rice, and a vegetable dish. Prepare a simple thali

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	(e.g., waterproof, lightweight) and begin making it with appropriate materials and techniques **Lesson 4: Testing, Evaluating, and Presenting the Tracker** **Can I test my penguin tracker, evaluate its strengths and weaknesses, and suggest ways to improve it?** *(D&T focus: Investigate and analyse existing products; evaluate own ideas and products against design criteria)* ACP: Test my tracker, identify one strength and one improvement, and explain how my design helps protect penguins in a polar environment		
At a distance assessment	Suggest changes that could be made to the tracker for an animal living in a different biome	Choose the correct cams from a selection to make a rolling sea for a packet ship	Design a thali menu including three different dishes for a new Falmouth restaurant

Year 6	**Autumn 1**	**Autumn 2**	**Summer 1**
Lead Enquiry Question **(Composite Outcome)**	**Cooking and Nutrition - Design and make a curry**	**Electrical Systems - Design and make a buzzer game**	**Textiles – Memory Cushions**
Spirituality – (Community, Dignity) encouraging our pupils to reflect upon their learning and its impact on themselves and others – Look in, look out, look up. **Hope** – (Hope) providing aspirational opportunities **Inspiring** – (Hope, Wisdom) developing pupils' resilience and motivation	Spirituality – significance of food in different cultures Hope – linked to the theme of the book and how food can be of comfort	Spirituality – how games can support working together, collaborate and create unity Hope – how games can feel like a 'reward' or a celebration	Spirituality - reflection of personal values, beliefs, or memories that have a deeper significance.

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Nurture – (Dignity) caring and growing ourselves, others and God's creation **Environment** – (Community) developing an awareness of our local, national and international community	Inspiring – innovating and creating original recipes (links with future prospects, jobs) Nurture – linked with sharing and cooking of food and the relationships that this creates Environment – the environmental impacts of food choices	Inspiring – exploring inventors, designers Nurture – nurturing ideas, designs and refining creations based on feedback to create a better outcome Environment – how electrical components impact the environment and how we can explore ways to minimize waste	Hope – how children can envision their cushions as symbols of comfort, resilience, or dreams for the future. Nurture – their own sense of well-being and creativity and emotional development by creating something that holds sentimental value. Environment – sustainment design and the impact of waste. Understand the value of reusing and recycling.
Learning Threads **(Substantive Concepts)**	**Cooking and Nutrition** **Design, make and evaluate**	**Electrical systems** **Construction** **Design, make and evaluate** **Inspired by other designers throughout history**	**Textiles** **Design, make and evaluate** **Inspired by other designers throughout history**
Disciplinary Knowledge	Understanding how ingredients function together (e.g., thickening, flavour balancing). Experimenting with ingredient combinations to create new flavours and textures. Designing a balanced meal that caters to dietary needs and preferences.	Understand and use electrical mechanical systems in products: series circuits incorporating switches, bulbs, buzzers. Design a buzzer game with an accurate circuit diagram. Construct a working buzzer game with appropriate tools and materials.	Know how old, unused materials (such as a school jumper) can be creatively transformed into something new and functional. Cut, measure and sew fabric with well-chosen stitches to create an aesthetically pleasing cushion. Join fabric, secure seams, stuff, shape and close the cushion.

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	Understanding the role of spices and how they impact flavour and digestion. Reflecting on how historical and geographical contexts influence food traditions. Applying food hygiene and safety practices during preparation and cooking. Tasting and evaluating the final product using sensory vocabulary.	Decorate the buzzer game for aesthetic appeal.	Personalise the cushion and evaluate.
Other designers throughout history	Le Creuset- founded in 1925. Best known for producing enamelled cast-iron cookware. Sumant Jayakrishnan A celebrated Indian designer and scenographer, known for creating immersive spaces for restaurants and cultural venues.	Charles Darrow (1889-1967) is often credited as the inventor of the board game Monopoly, because he commercialised the game in 1933, adding iconic design elements.	William Morris (1834–1896) Leader of the Arts and Crafts Movement. His designs are still widely used in cushions and upholstery. Lucienne Day (1917–2010) British designer celebrated for bold, abstract patterns in mid-century modern textiles. Laura Ashley (1925-1985)- textile designer.
Vocabulary	Aroma Balanced Diet Curry Flavour Hygiene Ingredient	Circuit Buzzer Battery Switch Component Wire	Recycling Upcycling eco-friendly seam allowance pattern measurements

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	Method Portion Presentation Recipe Seasoning Spices Stir Taste	Conductive Insulation Design Assembly Aesthetic Functionality Prototype Evaluate audience	pinning running stitch backstitch embroidery tacking hem customisation applique prototype functionality aesthetic appeal
LCs **(Components)** **Assessment check points in green**	Identify and describe key ingredients for a curry Can I understand the cultural differences between curry types? Identify and understand the nutritional value of key curry ingredients Can I identify nutritional values of key ingredients? Design a curry recipe inspired by Kensuke's Kingdom considering taste, texture and nutritional balance Can I create a recipe based on Kensuke's Kingdom including ingredients, step-by-step instructions and serving suggestions? Follow a recipe accurately to make the designed curry and evaluate Can I follow a recipe and apply cooking techniques?	I can analyse pre-made buzzer games and link this to show how electrical circuits work, including buzzers and switches Can I explain how circuits are completed to make a buzzer sound? I can design a buzzer game with an accurate electrical circuit diagram Can I accurately draw an electrical circuit with correct symbols? I can construct a working buzzer game with appropriate tools and materials safely Can I use tools with safety and with the correct effect? I can decorate my buzzer game to aesthetic appeal for my intended	Identify the importance of using recycled materials and design cushion based on key King Charles memories. Can I explain the purpose of their design and the process I will follow to complete the memory cushion? Develop sewing skills: cutting, measuring and stitches. Can I assess my own design ideas and explain why I have made certain decisions? Practice sewing techniques to join fabric together. Can I cut fabric and make a pattern?

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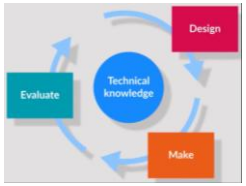
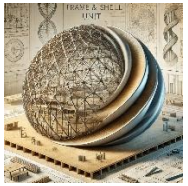
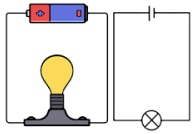
		audience_Can I explain how my product considers my intended audience?	Personalise the memory cushion and evaluate. Can I personalise and evaluate?
At a distance assessment	From a list of spices, which would you use in a curry? What goes together well?	During morning work, draw a circuit that could be used in a buzzer game	Create a 'stitch guide' for a friend – how to do different types of stiches or techniques you have learnt

DT Substantive Concepts

Design, make and evaluate	Inspired by other designers throughout history	Cooking and Nutrition	Textiles	Construction Structure	Mechanics	Electrical systems (KS2)
						

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