

DT Curriculum Coverage: Key Stage One

Expected Vocabulary. NC Objectives. Intended activities. Additional knowledge for prior learning for KS2

<p>EYFS links</p> <p>Prime areas</p> <p>Physical Development: *Moving and Handling *Health and Self-Care</p> <p>Personal, Social and Emotional Development: *Making Relationships * Self Confidence and Self-Awareness * Managing Feelings and Emotions</p> <p>Communication and Language: * Listening and Attention * Understanding * Speaking</p>
<p>Specific Areas</p> <p>Literacy: *Reading *Writing</p> <p>Mathematics *Numbers *Shape, Space and Measure</p> <p>Understanding the World: *People and Communities * The World * Technology</p> <p>Expressive Arts and Design: *Exploring and Using Media and Materials *Being Imaginative</p>

Year One	Curriculum Objective	Knowledge/Activity	Vocab
Topic / Autumn One	<p>When designing and making, pupils should be taught to:</p> <p><u>Design</u></p> <ul style="list-style-type: none"> 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 	<p>4 weeks</p> <p>1. Research Look at pictures of pirates. Copy pictures they like into their topic books – either draw collections of eye patches/scarves etc or go in ICT suite and google images which can be cut out and stuck into books. Discuss the materials (sci links) that things are made from</p> <p>2. Plan Choose 1 part of a pirate outfit they'd like to make for a teddy eg eye patch/head scarf/ telescope/ hat. Plan out their design in topic books listing materials needed and how they are going to make it.</p> <p>3. Make Make their product – take photos of them in the process</p> <p>4. Evaluate</p>	<p>Research, plan, design, make evaluate, materials, construction kit, float, sink.</p>

	<p><u>Make</u></p> <ul style="list-style-type: none"> 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 <p><u>Evaluate</u></p> <ul style="list-style-type: none"> explore and evaluate a range of existing products evaluate their ideas and products against design criteria <p><u>Technical knowledge</u></p> <ul style="list-style-type: none"> build structures, exploring how they can be made stronger, stiffer and more stable explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. <p><u>Cooking and nutrition</u></p> <p>Pupils should be taught to:</p>	<p>Have a mini fashion show where children show off their products. What do they like about their product and what would they do differently.</p> <p>Structures – 3 weeks Look at boat designs – especially pirate ships. Revise work covered in science of floating and sinking. Experiment making boats using construction kits/ junk. Talk about features needed Making challenge – make a boat out of a piece of A4 paper that will float. Work in small groups. Has to carry 2 playmobile people across a water tray. Tray out and evaluate</p> <p>Boat designs – Y4 Viking boats Materials – Y3 Juggling balls</p> <p>English – Reading comprehension - drawing on what they already know or on background information and vocabulary provided by the teacher, take turns in speaking. Writing composition – saying out loud what they are going to write about, discuss what they have written with the teacher and other pupils. Maths – Measurement – compare and describe lengths and heights, mass and weight, time and capacity and volume and record them. Independence – Make and draw own products. Team work – Making boats.</p>	
Topic / Autumn Two	<ul style="list-style-type: none"> use the basic principles of a healthy and varied diet to prepare dishes 	Art	
Topic / Spring One		Art	
Topic / Spring Two	<p>Throughout each unit and key stage children will be taught the following skills:</p>	<p>Remind children to bring in boxes etc for modelling next week. Children to think about what animal they would like to create. (direct some of their choices)</p> <p>-use IT to look at different animals and their characteristics. -children to draw and design their intended animal, (think of what they will use – choices being 1.wire and mod rock, 2.cardboard boxes, 3.junk modelling,4. clay) Create and make their model using the plans already drawn up.</p>	Wire, mod rock, cardboard, junk modelling, clay.

	<ul style="list-style-type: none"> • Creative –designing and making their own products using a variety of materials and tools. • Curious – researching other products and using a variety of materials and tools. • Communicator – evaluating their own and others’ products verbally and written. • Resilient – Accept evaluation and how to improve skills and product. 	<p>Issues – time, help available, resources</p> <p>Structures – Y5 Marble run Y4 - Viking long boats and Saxon Shields</p> <p>English – Reading comprehension - drawing on what they already know or on background information and vocabulary provided by the teacher, take turns in speaking. Writing composition – saying out loud what they are going to write about, discuss what they have written with the teacher and other pupils.</p> <p>Maths – Geometry – recognise and name 2D and 3D shapes. Independence – design and make own product.</p>	
<p>Topic / Summer One</p>	<ul style="list-style-type: none"> • Challenge – Use new technical knowledge to design, make and evaluate products. • Value – Appreciate professional and peers work. 	<p>Wk 1: Look at Mexican clay pots. Brainstorm design ideas – what makes them different from other ‘pots’? Plan and design a pot in a Mexican style</p> <p>Wk 2: Create thumb pot and decorate with Mexican patterns. Evaluate their design</p> <p>Wk 1: Make a list of plants that we can eat. Which ones have they seen growing in gardens etc? Sort plastic fruit/pictures into sets e.g. grows in this country/grows abroad or eat the root/eat the fruit/eat the leaves.</p> <p>Wk 2: Have a range of fruits and vegetables that can be grown in their gardens. Show how to prepare them by peeling/grating/slicing etc. Stress importance of food hygiene and safety when using equipment.</p> <p>Wk 3:Research food from Mexico. Make a list of food they would like to eat eg salsas, tortillas, guacamole, dips/veg sticks. Prepare food and taste.</p> <p>Link to music - Make instruments out of junk materials – maracas, tambourines, scrappers Decorate them and play them in music lesson</p> <p>Food - Y3 Packaging, Y4 Edible garden, Y6 Food around the world Shaping and joining – Y3 Juggling balls</p>	<p>Pot, Mexican pots, patterns.</p> <p>Plants, country, abroad, root, fruit, leaves, grating, peeling, slicing, food hygiene, equipment.</p>

	<p>English – Reading comprehension – drawing on what they already know to sort fruit/vegetables, participate in discussions. Handwriting – begin to form lower case letters and use capital letters when making a list.</p> <p>Maths – Number -recognise and create repeating patterns with objects and with shapes – link to sorting fruit and vegetables out depending on characteristics.</p> <p>Independence – design and make own product.</p> <p>Teamwork – brainstorm and play them in class.</p>	
Topic / Summer Two	<p>Wks 1-3 Look at a range of castles. Sketch out some of the designs and features.</p> <p>In pairs plan and design a castle to be made from junk. Can they include a working drawbridge in their design? List all the materials they will need. Make the model and paint it. Evaluate their finished design</p> <p>Structures – Y5 Marble Run</p> <p>English – Composition – saying a sentence out loud before it is written and reading their writing to their teachers and peers.</p> <p>Maths – Measurement – height and lengths. Fractions – recognise equal parts of the same shape. Geometry – describe position, direction and movement.</p> <p>Independence – Sketch design.</p> <p>Team player – make model.</p>	Castles, junk, drawbridge, materials.
Year Two		
Topic / Autumn One	Art	Art Topic
Topic / Autumn Two	<p>GFOL houses and Bread Making</p> <p>To explore what houses were like in 1666. What are the common features? What do you notice about the materials? Children to design their own house from Pudding Lane. Children to consider the materials and tools they'll need. The children will then make their house over a few lessons. The children will evaluate their final product and consider possible changes if they did this again.</p>	Material, tools, evaluate, explore, stronger, stiffer, stable.

		<p>Explore how the building structure can be made stronger, stiffer and more stable.</p> <p>Children will learn about how to make bread. Children to consider what tools they'll need to make bread. Children to consider different dietary needs and who the bread will and won't be suitable for. Also how to ensure that the gluten free bread is kept separate from the other bread. Children to weigh out the ingredients, knead the dough, shape their bread and leave it to prove. The bread will be cooked and the children will taste and evaluate it.</p> <p>Cooking – Y3 Packaging, Y4 Edible garden, Saxon Shield and Viking long boats, Y6 Food around the world</p> <p>English – Reading comprehension – becoming familiar with traditional tales. Writing composition – writing about real events.</p> <p>Maths – Measurements – measuring mass in g/kg (making bread) and height and length in cm (house design).</p> <p>Independence – draw and make own house.</p> <p>Team player – make bread.</p>	<p>Bread, diet, ingredients, knead, dough, shape, prove, taste, evaluate.</p>
<p>Topic / Spring One</p>		<p><u>Dips and Dippers</u></p> <p>Lesson 1 – Evaluating Dips: understanding where food comes from: I can evaluate different dips. I can start to think about where different foods come from.</p> <p>Lesson 2 – Exploring Dippers: I can explore different dippers and describe them.</p> <p>Lesson 3 – Food Groups: I can explain why I need to eat a balance and variety of food groups to stay healthy.</p> <p>Lesson 4 – Modelling Dips and Dippers: To select from and use a range of tools and equipment to perform practical tasks (for example, cutting) in the context of making a Dip and Dipper.</p> <p>Lesson 5 – Designing a dip: I can plan my own appealing dip and dipper and clearly show my ideas.</p> <p>Lesson 6 – Making and Evaluating: I can follow my plan to make my own dip and dipper. I can evaluate my dip and dipper.</p>	<p>Food, evaluate, dips, food groups, healthy and varied diet.</p>

	<p>Cooking – Y3 Packaging, Y4 Edible garden, Y6 Food around the world</p> <p>English – Reading comprehension – being introduced to non-fiction (balanced diet text). Composition – writing down ideas, key words and new vocabulary.</p> <p>Maths – Measurements – mass in g/kg.</p> <p>Independence – design own dip.</p> <p>Team player – make dip and dipper.</p>	
Topic / Spring Two	Art Topic	Art Topic
Topic / Summer One	<p><u>Moving Pictures – Traditional Tales</u></p> <p>Lesson 1 – explore and evaluate: I can explore and evaluate an existing product.</p> <p>Lesson 2 – Sliders: using a slider to make a picture move. I can use a mechanism in my product.</p> <p>Lesson 3 – Levers: using a lever to make a picture move. I can make a lever and use it in my product.</p> <p>Lesson 4 – Wheel Mechanisms: using a lever to make a picture move. I can make a wheel mechanism and use it in my product.</p> <p>Lesson 5 and 6 – designing and making: I can design a working product thinking about whom it is for and what it needs. I can make decisions about my product design and use an annotated sketch to show them. I can use mechanisms to make a product. Evaluate their ideas against design criteria in the context of evaluating a moving picture. I can evaluate my product against design criteria.</p> <p>Levers – Y3 Mechanical posters, Y5 Animals Automata, Y6 Fairground rides</p> <p>English – Writing composition – write for different purposes and real events (evaluating product).</p> <p>Maths – Measurement – use a ruler to measure cm in any direction.</p> <p>Independence – design and make lever.</p>	<p>Slier, lever, wheel, mechanism, axle, decision making, design criteria, moving picture.</p>
Topic / Summer Two	Art Topic	Art Topic

DT Curriculum Coverage: Key Stage Two

Expected Vocabulary. NC Objectives. Intended activities. Additional knowledge for upper year groups

Year Three	Curriculum Objective	Knowledge/Activity	Vocab
Topic / Autumn One	When designing and making, pupils should be taught to: <u>Design</u>	No DT	
Topic / Autumn Two	<ul style="list-style-type: none"> 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 <u>Make</u> <ul style="list-style-type: none"> select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities <u>Evaluate</u>	<p>Packaging</p> <p>Investigate and analyse a range of existing products, look at the structures, net, faces and tabs. Analyse the font and colours on the packaging. Look at famous packaging that has helped sales in the past e.g. Cadbury, Kellogg's.</p> <p>Design innovative, functional appealing products that are fit for purpose, aimed at particular individuals communicate ideas through annotated sketches.</p> <p>Test a design, apply understanding of how to strengthen, stiffen and reinforce structures.</p> <p>Use tools and equipment to perform a practical task select from and use a range of materials and components. Apply understanding of how to strengthen, stiffen and reinforce structures and produce a box for a Christmas truffle.</p> <p>Make the truffle.</p> <p>Evaluate ideas and product against their own design criteria, rate the product. Look online to ensure this matches the criteria seen in lesson 1.</p> <p>Cooking – Y4 Edible garden, Y6 Food around the world</p> <p>English – Comprehension – ask questions to help understanding (best type of packaging). Writing composition – discussing and recording ideas.</p> <p>Maths – Measurements - measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g), volume/capacity (l/ml) and compare durations of events. Statistics – interpret data.</p> <p>Independence – design packaging.</p> <p>Team player – make truffle.</p>	Investigate, analyse, range, package, net, faces, tabs, design, purpose, functional, appealing, annotate, communicate, test, improve, develop, evaluate.

<p>Topic / Spring One</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><u>Technical knowledge</u></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 [for example, gears, pulleys, cams, levers and linkages] understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] apply their understanding of computing to program, monitor and control their products. <p><u>Cooking and nutrition</u></p> <p>Pupils should be taught to:</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 	<p><u>Juggling Balls</u></p> <p>Product Analysis: To investigate and evaluate a range of existing products in the context of a product analysis of existing juggling balls- research.</p> <p>Designing: To generate, develop, model and communicate ideas through discussion and annotated sketches in the context of designing a circus/castle themed juggling ball.</p> <p>Tie-Dye: To select from and use a range of tools and equipment to perform practical tasks accurately in the context of creating a tie-dye background for a juggling ball.</p> <p>Filling and Hemming: To select from and use a wider range of materials and components according to their functional properties in the context of choosing the filling for their juggling balls. Select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting and shaping), accurately in the context of cutting, shaping and hemming a juggling ball.</p> <p>Decorative Fabric: To select from and use a wider range of materials and components, including textiles according to their functional properties and aesthetic qualities in the context of using a functional method for decorating a fabric.</p> <p>Shaping and Joining: To select from and use a wider range of tools and equipment to perform practical tasks (for examples shaping and joining), accurately in the context of shaping and joining a juggling ball. Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work in the context of evaluating juggling balls.</p> <p>Fabric – Y5 Phone Cases,</p> <p>English – Writing composition – when writing research and evaluation use simple organisational devices e.g. headings and sub-headings.</p> <p>Maths – Statistics – interpret data from bar charts, pictograms and tables. Measurements - measure, compare, add and subtract: lengths (m/cm/mm) and volume/capacity (l/ml) when making juggling ball.</p> <p>Independence – make own juggling ball.</p>	<p>Explore, textiles, evaluate, interpret, product, analysis, star profile, user, design, brief, criteria, annotate, Tie-dye, technique, decorate, cut, shape, functional, hem, template, stitch, functional, quality, join, overcast stitch, aesthetic, evaluate, test</p>
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	using a range of cooking techniques	Team work – evaluate others’ work and improve own.	
Topic / Spring Two		No DT	
Topic / Summer One	<ul style="list-style-type: none"> understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. 	No DT	
Topic / Summer Two	<p>Throughout each unit and key stage children will be taught:</p> <ul style="list-style-type: none"> Creative – designing and making their own products using a variety of materials and tools. Curious – researching other products and using a variety of materials and tools. Communicator – evaluating their own and others’ products verbally and written. Resilient – Accept evaluation and how to improve skills and product. Challenge – Use new technical knowledge to design, make and evaluate products. Value – Appreciate professional and peers work 	<p>Mechanical posters</p> <p>Mechanical Systems: Investigate and analyse a range of existing products, in the context of investigating existing lever and linkage mechanisms.</p> <p>Levers and Linkages: Understand and use mechanical systems in their products (for example levers and linkages), in the context of making a mechanism which uses levers and linkages.</p> <p>Designing: Use research and develop design criteria to inform the design of innovative, functional and appealing products that are fit for purpose, aimed at individuals or groups, in the context of developing design criteria and design ideas for a moving poster to promote recycling.</p> <p>Prototypes: Generate, develop, model and communicate ideas through discussion, annotated sketches, and prototypes, in the context of using the moving poster design to create a prototype.</p> <p>Finishing a Product: Select from and use a wider range of tools and equipment to perform practical tasks accurately, in the context of selecting and using the correct tools and equipment make a moving poster.</p> <p>Evaluating Our Posters: Understand and use mechanical systems in their products (for example levers and linkages), in the context of knowing the name and function of the parts of a lever and linkage system. Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work, in the context of evaluating their moving poster.</p> <p>Lever – Y5 Animals Automata, Y6 Fairground rides</p> <p>English – Writing composition – plan writing by discussing and recording ideas. Writing composition – when writing evaluation use simple organisational devices e.g. headings and sub-headings.</p> <p>Maths - Statistics – interpret data from bar charts, pictograms and tables. Measurements - measure, compare, add and subtract: lengths (m/cm/mm).</p> <p>Independence – make own poster.</p>	<p>Design brief, recycle, mechanism, mechanical system, moving, lever, linkage, pivot, input, output, design brief, generate, loose/fixed pivot, guide/bridge, system, annotated sketch, generate, design criteria, adapt, prototype, evaluate, mock-up, high-quality, finish, techniques, select, accuracy, tools, equipment, materials, components, replicate, improve,</p>

		Team work – evaluate others’ work and improve own.	
Year Four			
Topic / Autumn One		<p>Saxon Shields. Linked the Saxon history topic. Children will research shields throughout history the particularly focusing on Saxon shields. Children will then use these facts to make their own shields from cardboard. They will choose their own materials and tools to help them decorate it. Evaluate the shield against their peers and original Saxon shield designs.</p> <p>Y5 – Automata toys</p> <p>English – Writing composition – organising paragraphs around a theme, using simple organisational devices such as headings and sub-headings (research and evaluation). Comprehension – retrieve and record information from non-fiction.</p> <p>Maths – Measurement – convert between units of measure (when measuring resources out).</p> <p>Independence – make own Saxon shield.</p>	
Topic / Autumn Two		No DT this half term.	
Topic / Spring One		<p>Make Viking Long Ships – linked to History Vikings topic. Children will research the design of functional long ships, select materials and tools to construct the ship. They will evaluate their product.</p> <p>Y5 – Automata toys</p> <p>English – Writing composition – organising paragraphs around a theme, using simple organisational devices such as headings and sub-headings (research and evaluation). Comprehension – retrieve and record information from non-fiction.</p> <p>Maths - Measurement – convert between units of measure (when measuring resources out).</p> <p>Team player – make long boat.</p>	Functional, product, prototype.
Topic / Spring Two		No DT this half term.	
Topic / Summer One		Edible Garden	Herbs, ingredients, seasonality, pesto, healthy

		<ol style="list-style-type: none"> 1. Naming and Growing Herbs Understand seasonality and know where and how a variety of ingredients are grown in the context of where and how herbs are grown. 2. Pesto and Pasta Understand and apply the principles of a healthy and varied diet in the context of making a balanced meal made from herbs. Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques in the context of cooking a pesto and pasta dish. 3. Sweet Strawberries Understand seasonality and know where and how a variety of ingredients are grown in the context of where and how strawberries are grown. 4. Strawberry Smoothies Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques in the context of making a strawberry smoothie. Select from and use a wider range of tools and equipment to perform practical tasks accurately in the context of kitchen tools. 5. Growing Tomatoes Understand seasonality, and know where and how a variety of ingredients are grown in the context of growing tomatoes. 6. Cooking with Tomatoes Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques in the context of cooking a dish made with tomatoes. <p>Y6 – Edible garden</p> <p>English – Writing composition – organising paragraphs around a theme, using simple organisational devices such as headings and sub-headings (research and evaluation). Comprehension – retrieve and record information from non-fiction.</p> <p>Maths – Statistics – interpret data (when foods are grown seasonally). Measurement – convert between units of measure (g/kg).</p> <p>Team player – making smoothies and tomato dish.</p> <p>Independence – Design healthy meal.</p>	<p>and varied diet, savoury, smoothies.</p>
Topic / Summer Two		No DT this half term.	

Year Five		
Topic / Autumn One	No DT	
Topic / Autumn Two	<ol style="list-style-type: none"> 1. Marble 2. Exploring structures – investigate and analyse a range of existing products. How do computers make prototypes? 3. Marble run bridges – Use a range of tools for a practical task. 4. Developing Practical skills – To use a wider range of tools and equipment for practical tasks. 5. Timed marble run challenge – To investigate existing products. Use ICT to make a flow chart of how the marble goes through the run. 6. Making the marble run – To select a range of materials and tools to make a marble run. 7. Evaluating and Improving- Evaluate ideas against success criteria and suggest improvements to work. <p>English - Reading comprehension - retrieve, record and present information from non-fiction. Writing composition - organisational and presentational devices to structure text and to guide the reader e.g. headings, bullet points.</p> <p>Maths – Measurements – convert between different units of measure e.g. mm/cm/m, understand and use approximate equivalences between metric units and common imperial units such as inches. Statistics - complete, read and interpret information in tables, including timetables.</p> <p>Independence – design own marble run.</p> <p>Team work – explore and make marble run.</p>	Free standing structures, materials, masking tape, cutting, shaping, tools, equipment, joining, finishing, accurate, bends.
Topic / Spring One	No DT	
Topic / Spring Two	<p>Sewing: phone cases</p> <p>Lesson 1 - The Design Criteria</p> <p>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 in the context of creating a design criteria for a mobile phone case.</p>	Innovative, functional, annotated sketches, cross-sectional diagrams, prototype, stitches, fastening.

Lesson 2 - Designs

To generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams in the context of making a paper template for a mobile phone case.

Lesson 3 - Making a Template

To generate, develop and communicate their ideas through discussion, prototypes and pattern pieces in the context of making a paper template for a mobile phone case.

Lesson 4 - Selecting Stitches

To generate, develop, model and communicate their ideas through prototypes in the context of practising different stitches to inform the final design.

Lesson 5 - Step by Step Plan

To generate, develop, model and communicate their ideas through discussion and annotated sketches in the context of creating a step by step plan to communicate the making process.

Lesson 6 - Decoration and Fastenings

To select from and use a wider range of materials and components, including textiles, according to their functional properties and aesthetic qualities in the context of selecting decorative techniques and fastenings for felt phone cases.

Lesson 7 -To evaluate their ideas and products against their own design criteria in the context of evaluating a felt phone case against a design criteria created.

English – Reading comprehension - retrieve, record and present information from non-fiction. Writing composition - organisational and presentational devices to structure text and to guide the reader e.g. headings, bullet points (adverts).

		<p>Maths - Measurements – convert between different units of measure e.g. mm/cm, understand and use approximate equivalences between metric units and common imperial units such as inches. Statistics - complete, read and interpret information in tables, including timetables.</p> <p>Independence – make own phone case.</p>	
Topic / Summer One		<p>Automata: mechanical toys</p> <ol style="list-style-type: none"> 1. Amazing Animals 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 in the context of researching animals that will be used in their mechanical models. Look at Louis Marx who is a famous mechanical toy maker. 2. Cams and Followers Understand and use mechanical systems in their products (for example cams) in the context of understanding how cams can be used to make a model move. 3. Exploring Cam Movement Understand and use mechanical systems in their products (for example cams) in the context of understanding how changing the shape of the cam changes the movement of the follower. Select from and use a wider range materials and components, including construction materials according to their functional properties and aesthetic qualities in the context of selecting materials to make a simple cam mechanism. 4. Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at individuals or groups in the context of developing design criteria for the Automata Animals. 5. Select from and use a wider range of tools and equipment to perform practical tasks (for example cutting, shaping, joining and finishing), accurately in the context of using tools and equipment to perform the job of cutting, joining and finishing wood to make a frame. 	<p>Cams, mechanical systems, split pics, plasticine, component, mechanism, accurately.</p>

		<p>6. Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work in the context of evaluating the product design.</p> <p>7. Understand and use mechanical systems in their products in the context of using a cam mechanism to make a model of an animal move.</p> <p>Lever - Y6 Fairground rides</p> <p>English – Reading comprehension - retrieve, record and present information from non-fiction. Writing composition - organisational and presentational devices to structure text and to guide the reader e.g. headings, bullet points (report for evaluation).</p> <p>Maths - Maths – Measurements – convert between different units of measure e.g. mm/cm, understand and use approximate equivalences between metric units and common imperial units such as inches. Statistics - complete, read and interpret information in tables, including timetables.</p> <p>Team player – research and make mechanical toy.</p>	
Topic / Summer Two		No DT	
Year 6			
Topic / Autumn One		<p>Fairground Rides</p> <p>Lesson 1 To look at a range of familiar products that use rotating parts.</p> <p>Lesson 2 To investigate ways of using electrical motors to create rotating parts. Understand computers can control this.</p> <p>Lesson 3 To investigate ways of making a framework for a fairground ride.</p> <p>Lesson 4</p>	Rotate, electrical motors.

		<p>To be able to design a fairground ride with a rotating part. Look at famous fairground ride manufacturers Thomas Walker from Tewkesbury.</p> <p>Lesson 5 To be able to make a fairground ride following a design.</p> <p>Lesson 6 To be able to evaluate a finished product.</p> <p>English – Writing composition - noting and developing initial ideas, drawing on reading and research where necessary. Reading comprehension - retrieve, record and present information from non-fiction.</p> <p>Maths – Measurement - solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate, use, read, write and convert between standard units, converting measurements of length. Geometry - illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius. Statistics - interpret graphs.</p> <p>Team player – make fairground ride.</p>	
Topic / Autumn Two		Art	
Topic / Spring One		Art	
Topic / Spring Two		<p>DT – Programming adventures</p> <p>Lesson 1 Apply their understanding of computing to program, monitor and control their products by understanding what floor robots are, how they are programmed and controlled.</p> <p>Lesson 2 Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams prototypes, pattern pieces and computer-aided by designing an adventure map.</p> <p>Lesson 3</p>	

		<p>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 by exploring how different materials affect the movement and control of floor robots.</p> <p>Lesson 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 by planning an adventure map.</p> <p>Lesson 5 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 by creating an adventure map using materials selected for their properties.</p> <p>Lesson 6 Apply their understanding of computing to program, monitor and control their products by programming and monitoring floor robots on finalised adventure map.</p> <p>English – Writing composition - noting and developing initial ideas, drawing on reading and research where necessary. Reading comprehension - retrieve, record and present information from non-fiction.</p> <p>Maths - Measurement - solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate, use, read, write and convert between standard units, converting measurements of length. Statistics - interpret graphs.</p> <p>Independence – make own slipper.</p>	
Topic / Summer One		Art	
Topic / Summer Two		<p>Food Around the World Lesson 1 – Where Ingredients Come From Understand seasonality, and know where and how a variety of</p>	<p>Ingredients, seasonality, healthy and varied diet,</p>

		<p>ingredients are grown in the context of looking at where a variety of ingredients come from.</p> <p>Lesson 2 – Food Groups Understand and apply the principles of a healthy and varied diet in the context of understanding how diets are varied around the world but still consist of the same food groups. Use computers to research the cost of food, economic status of people in the county and how that impacts on the food they eat/buy.</p> <p>Lesson 3 – Understand and apply the principles of a healthy and varied diet in the context of understanding the nutritional benefits of eating rice. Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques in the context of cooking rice.</p> <p>Lesson 4 – Mexican Food Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques in the context of preparing and cooking Mexican food.</p> <p>Lesson 5 – Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques in the context of cooking Chinese food.</p> <p>Lesson 6 - German Food Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques in the context of cooking pretzels.</p> <p>English – Reading comprehension - retrieve, record and present information from non-fiction. Writing composition - noting and developing initial ideas, drawing on reading and research where necessary.</p> <p>Maths - Measurement - solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate, use, read, write and convert between standard units, converting measurements of mass. Statistics - interpret graphs.</p>	<p>nutritional benefits, savoury.</p>
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		Team player – make food. Independence – design food.	
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