



Orange = explicit vocabulary to teach Purple = disciplinary knowledge Design tasks are sequenced

DT - whole school overview 2022/23 As a Designer I can.....

All units: Understand contexts, users and purposes, generating , developing, modelling and communicating ideas. To be able to plan designs, use practical skills and techniques to make products work. Know where food comes from. Understand how to prepare food and how to cook dishes and to choose ingredients based on nutrition. To evaluate my own ideas and products by studying existing products, key events and individuals.

Term	Preschool	Rec	Yr 1	Yr 2	Yr 3	Yr 4
Autumn - First week	<p><b>Based on Oliver Jeffers Here We Are</b></p> <p><b>Ongoing throughout the year:</b> Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park.</p> <p>Explore different materials freely, in order to develop their ideas about how to use them and what to make.</p> <p>Develop their own ideas and then decide which materials to use to express them.</p> <p>Create closed shapes with continuous lines, and begin to use these shapes to represent objects.</p> <p><b>Ongoing throughout the year:</b></p>	<p><b>Based on Oliver Jeffers Here We Are</b></p> <p><b>Assessment :</b> <b>How can I cut a picture to make a lolly stick puppet of a character from the book 'Here We Are'?</b></p> <p>Choose an image from the story</p> <p>Explain how you cut <b>materials</b>, <b>assemble</b> and <b>join</b> the <b>materials</b> to make a lolly stick puppet from 'Here We Are'</p> <p><b>Cut and join the materials.</b></p> <p>Talk about their own and other <b>designs</b> and explain how they made their soldier.</p> <p>Talk about how they could make their <b>product</b> better. Begin to show <b>accuracy and care</b> when drawing. Use a range of small tools, including scissors, paint brushes Safely use and explore a variety of materials, tools and techniques, experimenting design, texture, form and function Share their creations, explaining the process they have used;</p>	<p><b>Based on Oliver Jeffers Here We Are</b></p> <p><b>Assessment :</b> <b>How will I join materials to make a lolly stick puppet of a character from the book 'Here We Are'?</b></p> <p>Explore the style of drawing in the story.</p> <p>Explain how you <b>measure</b>, <b>mark out</b>, and <b>cut materials</b> and how you <b>assemble</b> and <b>join the materials</b> to make a lolly stick character from 'Here We Are'. <b>Slider, background, character, materials, measure, mark, cut, join, assemble, move, slide, smooth</b></p> <p><b>Marking out and cutting</b> <b>Assemble strips of card to make levers and sliders</b> <b>Fixing and joining</b> <b>Levers</b> <b>Finishing</b> <b>Collage, colouring</b></p>	<p><b>Based on Oliver Jeffers Here We Are</b></p> <p><b>Assessment :</b> <b>How can I create a slider of a character in the story of 'Here We are'?</b></p> <p>Discuss which scene from the story could be used as a background for a <b>moving picture</b>.</p> <p>Explain how you <b>measure, mark out, cut, assemble</b> and <b>join the materials</b> to make a <b>slider</b> for a moving picture.</p> <p>Explain how a slider works and how to move the character to make it look like a moving picture.</p> <p><b>Marking out and cutting</b> <b>Use of base kits/use of net for cuboid</b> <b>Fixing and joining</b> <b>Try out different ways of</b></p>	<p><b>Based on Oliver Jeffers Here We Are</b></p> <p><b>Assessment :</b> <b>How can I assemble a pivot lever to add movement to a scene from the story 'Here We Are'?</b></p> <p>Discuss which scene from the story could be used as a background for a moving picture.</p> <p>Explain how you <b>measure, mark out, cut, assemble</b> and <b>join</b> the materials to make a <b>pivot</b> for a <b>moving picture</b>.</p> <p>Explain how a pivot works and how the image can be manipulated to move across a background scene.</p> <p><b>Pupils know how to use learning from science and mathematics to help design and make products that work. They understand that materials have functional and aesthetic qualities. Recognise that materials can be combined and mixed to create more useful characteristics.</b></p>	<p><b>Based on Oliver Jeffers Here We Are</b></p> <p><b>Assessment :</b> <b>How can I assemble a simple lever and linkage to create a moving image?</b></p> <p>Discuss which scene from the story could be used for a moving image.</p> <p>Explain how you need to <b>accurately measure, mark out, cut, assemble and join the materials</b> to make a simple <b>lever and linkage mechanism</b> for a moving image.</p> <p>Explain how the lever worked and how the image can be manipulated to move.</p> <p><b>Pupils use learning from science and mathematics to help design and make products that work. They understand that materials have functional and aesthetic qualities. Apply this thinking successfully in their own products. Recognise that materials can be</b></p>



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				<p>making axel holders Mechanical and control skills Join wheels and axles Finishing Try out different finishing techniques –collage, paint, cut out shapes, computer generated images to match a design brief.</p>	<p>Know how mechanical systems such as levers and linkages create movement. Marking out and cutting Consider the limitations on scale and scope of design ideas and reflect these in precise, labelled drawings Work safely with a range of hand tools Mechanical and control skills Understand how simple levers work Fixing and joining Extend understanding of ways of fixing and joining components and selecting most appropriate for a given task</p>	<p>combined and mixed to create more useful characteristics. Know how mechanical systems such as levers and linkages create movement. Marking out and cutting Consider the limitations on scale and scope of design ideas and reflect these in precise, labelled drawings Work safely with a range of hand tools Mechanical and control skills Understand how simple levers work Fixing and joining Extend understanding of ways of fixing and joining components and selecting most appropriate for a given task</p>
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<p>Autumn 2</p>	<p>Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park.</p> <p>Explore different materials freely, in order to develop their ideas about how to use them and what to make.</p> <p>Develop their own ideas and then decide which materials to use to express them.</p> <p>Create closed shapes with continuous lines, and begin to use these shapes to represent objects.</p>	<p><b>Autumn 1</b> <b>In the woods</b> <b>Assessment:</b> <b>What can I add to my design to make it look like a real hedgehog?</b></p> <p><b><u>Making a clay hedgehog shape and adding chosen materials to make the spines</u></b></p> <p>Make observations of animals.</p> <p>Explore manipulating <b>clay</b> as a <b>material</b> to change its <b>shape</b> and <b>form</b> to make an object</p> <p>Experiment by using <b>tools</b> to change the <b>texture</b> and <b>form</b> of the <b>clay</b></p> <p>Finish the <b>design</b> by adding additional <b>materials</b> to create spines on the hedgehog</p> <p>Discuss their design</p> <p>Explain how they created their <b>design</b></p> <p>Say what they liked about their <b>design</b> and what they would change to <b>improve</b> it</p> <p><b>Begin to show accuracy and care when drawing.</b></p> <p><b>Use a range of small tools, including scissors, paint brushes</b></p> <p><b>Safely use and explore a variety of materials, tools and techniques, experimenting design, texture, form</b></p>	<p><b>Seasons and Celebrations</b> <b>Assessment : How can I make characters move in a Nativity Scene?</b></p> <p><b><u>Seasons and Celebrations</u></b> <b><u>Making sliders/levers for the Nativity Scene</u></b></p> <p>Know what a <b>slider</b> is and explain how it moves along a <b>background</b> to show a moving scene.</p> <p>Know what a <b>lever</b> is and how a simple lever mechanism can create a <b>fixed pivot</b> of movement in a scene</p> <p>Know how to design a Nativity scene to include a <b>slider</b> and <b>lever mechanism</b> to create movement in the scene.</p> <p>Explain how to <b>measure, cut</b> and <b>join</b> materials to create a slider that <b>moves</b> smoothly across a <b>background</b> scene.</p> <p>Explain how to <b>measure, cut</b> and <b>join materials</b> to create a lever that adds a curved <b>movement</b> to the scene.</p> <p>Talk about what was successful about the <b>movement</b> in the Nativity scene and what might make it</p>	<p><b>Castles</b> <b>Assessment :</b> <b>How can I design a castle that will be strong and freestanding?</b></p> <p><b><u>Designing, creating and reviewing castles</u></b></p> <p>Recall castle features - battlement, drawbridge and portcullis</p> <p>Know that a castle can be made from a range of <b>materials</b>, but stiffer materials will make a more <b>stable model</b></p> <p>To choose <b>authentic features</b> to design a castle and consider materials that can be <b>cut</b> and <b>shaped</b>, but stable.</p> <p>To know how to measure and mark out the <b>battlements</b> on a castle design with some <b>accuracy</b></p> <p>To know how to join materials on the outside and inside of a model to make it more stable.</p> <p>Explain the ways a</p>	<p><b>What did the Romans do for us?</b> <b>Assessment :</b> <b>How will I design and construct an authentic Roman Villa?</b></p> <p><b><u>Designing and making a Roman Villa</u></b></p> <p>Know that a <b>Roman Villa</b> is a country house that was built and inhabited during the Roman Republic or the Roman Empire.</p> <p>Know that Roman Villas were luxurious houses where wealthy Romans lived and entertained.</p> <p>Know what a <b>pillar, atrium, triclinium, courtyard and hypocaust system</b> are.</p> <p>Explore the design features of Roman Villa and discuss the elements I would include in my design.</p> <p>Discuss my Villa design and the materials I will choose that can be cut, shaped and assembled with some accuracy to make a freestanding model.</p> <p>Refer to their design criteria as they design and make. Identify the strengths and areas for development in their ideas and</p>	<p><b>Anglo Saxons, Scots and Settlers?</b> <b>Assessment :</b> <b>What delicious Diwali dish will you create?</b></p> <p><b><u>Designing and making an Indian dish</u></b></p> <p>Know that <b>Diwali</b> is a Hindi celebration when Indians share a special meal.</p> <p>Recall the food groups in an <b>'eatwell' plate</b>.</p> <p>Explore a range of <b>Indian</b> recipes and what ingredients are used to make them.</p> <p>Understand that many <b>spices</b> used in <b>authentic Indian</b> dishes.</p> <p>Recall 5 of the ten essential <b>spices</b> in Indian cooking <b>cumin, coriander, cloves, cardamom, red chilli powder, ginger, mustard seed, fenugreek, turmeric and saffron</b></p> <p>Explain your choice of <b>indian meal</b> and how you will present your dish to show <b>aesthetic</b> qualities.</p> <p>Describe the <b>spices</b> you will include in your dish and how</p>
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	<p>and function Share their creations, explaining the process they have used;</p> <p>How could you use tools to help with sculpting the clay? How can I add the materials to finish the design and make it look like a real hedgehog?</p> <p><b>Autumn 2 Families and Celebrations Assessment: How can I shape and join materials to make a Christmas decoration that will hang from a tree?</b></p> <p><b><u>Making Christmas decorations</u></b></p> <p>Look at Christmas decoration designs.</p> <p>Talk about the designs and discuss what materials they would choose for their design.</p> <p>Draw a picture of their Christmas decoration</p> <p>Talk about using different ways of joining materials</p> <p>Cut, shape and join materials to make a hanging Christmas decoration</p> <p>Explain how they created their</p> <p><b>Ongoing throughout the year:</b></p>	<p>better. Slider, lever, background, character, materials, measure, mark, cut, join, assemble, move, slide, split pin, smooth Marking out and cutting • Assemble strips of card to make levers and sliders Fixing and joining • Levers Finishing • Collage, colouring</p> <p>Plans by suggesting what to do next. Selects from a range of tools, materials and components. Uses a range of materials, components</p> <p>Can state what product they are making and describe what they are used for. Measures, marks out, shapes and cuts most materials.</p> <p><b>How can I make a character move along a scene? How can I make my chosen character move smoothly in the scene? How can I mark out and cut the materials to make a slider/lever? How well did the sliders work? Which designs worked best and why?</b></p>	<p>design can be finished to make it look more authentic.</p> <p>Describe what was successful about a design and what improvements could be made. Marking out and cutting • Developing ideas through precise and labelled drawings Fixing and joining Stiffening materials and making stable structures - rolling, folding, and layering, reinforcing corners Finishing Collage, painting, durability</p> <p><b>Making -</b> Pupils should generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology Build structures, exploring how they can be made stronger, stiffer and more stable. Control and use of materials to develop and share ideas, create a design, think critically,</p>	<p>products. Consider the views of others. Use their design criteria to evaluate their completed products.</p> <p><b>Marking out and cutting Consider the limitations on scale and scope of design ideas and reflect these in precise, labelled drawings Work safely with a range of hand tools Mechanical and control skills Understand how pneumatic systems work Understand how simple levers work Fixing and joining Extend understanding of ways of fixing and joining components and selecting most appropriate for a given task</b></p> <p>What does a Roman villa look like? How does a computer aided image help us to design a villa? What materials would the Romans have had available to use to make their homes? What processes will you need to build your villa? What materials did you use to make your villa model? Was your model strong and stiff? What designs were the most successful and why?</p>	<p>you will prepare and cook the dish.</p> <p>Begin to know how to use a range of techniques e.g. peeling, chopping, slicing, grating, mixing, spreading, kneading and baking</p> <p>Begin to know now how to prepare a savoury dish safely and hygienically using a heat source.</p> <p>Evaluate the dish based on aesthetic appearance, flavour, taste and texture.</p> <p>What combination of ingredients worked well and what would you alter to improve your dish?</p> <p>Indian, Diwali, hygiene, slice, peel, chop, grate, mix, spread, vegetarian, spices, oil, curry, rice, hob, oven, heat, boil, simmer, serve, flavour</p> <p><b>Recognise that food comes from plants or animals. Food is farmed, reared, grown elsewhere (e.g.home, allotments),exported, imported or caught. This can be on a local, regional and international scale. Begin to know how to prepare and cook a variety of</b></p>
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	<p>Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park.</p> <p>Explore different materials freely, in order to develop their ideas about how to use them and what to make.</p> <p>Develop their own ideas and then decide which materials to use to express them.</p> <p>Create closed shapes with continuous lines, and begin to use these shapes to represent objects.</p>	<p><b>design</b> Say what they liked about their <b>design</b> and what they would change to <b>improve</b> it</p> <p><b>What different ways can you join materials? Can you describe how you join the materials together? Which way of joining worked best/</b></p> <p><b>Begin to show accuracy and care when drawing. Use a range of small tools, including scissors and paint brushes. Safely use and explore a variety of materials, tools and techniques, experimenting design, texture, form and function Share their creations, explaining the process they have used.</b></p>		<p>evaluate and analyse. Explore and evaluate a range of existing products Evaluate their ideas and products against design criteria.</p> <p><b>Q</b> Where can you get ideas for my designs? What do castles look like? Are all castle designs the same? What materials will I choose to make my model? Is it fit for purpose? How could I make my castle stiffer or stronger? What changes would I make next time?</p>		<p><b>predominantly savoury dishes and some sweet dishes safely and hygienically, including the use of a heat source. Begin to know how to use a range of techniques e.g. peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. Know that a healthy diet is made up from a variety and balance of different foods and drinks, as depicted on 'The Eatwell Plate'. Know that to be active and healthy, food is needed to provide energy for the body.</b></p> <p><b>What spices are commonly used in authentic Indian cookery?</b></p> <p><b>Why is the presentation important when preparing your Indian dish?</b></p>
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<p>Spring 2</p>	<p><b>Ongoing throughout the year:</b></p> <p>Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park.</p> <p>Explore different materials freely, in order to develop their ideas about how to use them and what to make.</p> <p>Develop their own ideas and then decide which materials to use to express them.</p> <p>Create closed shapes with continuous lines, and begin to use these shapes to represent objects.</p>	<p><b>Spring 1 Bears</b></p> <p><b>Assessment: What materials would keep my bear dry in the rain?</b></p> <p><b><u>Making a bear raincoat</u></b></p> <p>Look at examples of raincoats for <b>design ideas</b>.</p> <p>Explore and choose <b>materials</b> to see which are <b>waterproof</b>.</p> <p>Begin to talk about the <b>raincoat design</b>.</p> <p><b>Draw</b> their <b>design</b>.</p> <p>Select from a <b>range of materials</b> for the <b>raincoat design</b>.</p> <p><b>Cut and join</b> the <b>materials</b>.</p> <p><b>Talk</b> about their own and other <b>designs</b> and explain how they made their raincoat.</p> <p>Talk about how they could <b>improve</b> their <b>product</b>.</p> <p><b>Why is it important to be careful when using split pins?</b>  <b>How will I join the parts of the soldier?</b>  <b>How did your soldier move?</b></p> <p><b>Begin to show accuracy and care when drawing.</b>  <b>Use a range of small tools, including scissors and paint</b></p>	<p><b>Journeys</b></p> <p><b>Assessment: What kite design and materials will I choose to make a kite that will fly?</b></p> <p><b><u>Making a kite to fly</u></b></p> <p>Know that <b>kites</b> come in many designs. Be able to name a <b>diamond</b> kite and a <b>curved winged</b> kite.</p> <p>Explain how to make a diamond <b>kite</b></p> <p>Describe what materials would be suitable for making this type of kite and why.</p> <p>Explain how to make a <b>curved winged kite</b></p> <p>Describe what materials would be suitable for making this type of kite and why.</p> <p>Justify the design choices made for their own kite design and why they have chosen the <b>materials</b> for their design.</p> <p>Describe how they made their <b>kite</b> and why <b>measuring, marking out</b> and the way they <b>joined</b> their <b>materials</b> was important to the design.          Talk about the <b>kite</b> designs, which <b>kites</b> flew well and which designs they liked and</p>	<p><b>Jungles</b></p> <p><b>Assessment: What healthy ingredients will combine to make a delicious smoothie?</b></p> <p><b><u>Making a smoothie</u></b></p> <p>Know that a <b>healthy smoothie</b> can be made with fruit and or vegetables.</p> <p>Know 3 <b>fruits</b> or <b>vegetables</b> that are in season that could be included in a fruit <b>smoothie</b> from <b>Apples, Pears, Celery, Kale and Carrots</b>.</p> <p>Discuss likes and dislikes and what combination of <b>fruits</b> and or <b>vegetables</b> would make a tasty <b>smoothie</b> and why.</p> <p>Describe the <b>flavours</b> in existing <b>smoothies</b> and which <b>flavours</b> you would like to include in your <b>smoothie</b> and why.</p> <p>Give reasons for the choice of <b>fruit</b> and <b>vegetables</b>, the name and design of your smoothie label.</p> <p>Know that to prepare a</p>	<p><b>What was the purpose of hill forts including Maiden Castle for the local population?</b></p> <p><b>Assessment: How will I make a functional board game that is fun to play?</b></p> <p><b><u>Design and make a 'Stone Age' themed board game</u></b></p> <p>Discuss and explore existing <b>board games</b>, how they are designed, how they work, the <b>materials</b> used to make them and the aesthetic qualities of the <b>game</b>.</p> <p>Explain how their <b>design</b> works, how they have linked the theme of 'stone age' to the game and what materials will be used to make it look <b>authentic</b></p> <p>Know that <b>measuring</b> with <b>some accuracy</b> gives a better <b>aesthetic</b> appearance to the board game.</p> <p>Understand that <b>materials</b> have <b>functional and aesthetic qualities</b>. Explain the choices of materials used for the 'stone age' pieces and why they added <b>authenticity</b> to the game.</p> <p>Understand that by <b>assembling</b> and <b>joining</b> the parts of the board game with <b>some accuracy</b> will make it more <b>functional</b>.</p>	<p><b>Smuggling in Dorset and finding my way around new places</b></p> <p><b>Assessment: How will I make a functional smugglers pouch that will hold the weight of 3 coins?</b></p> <p><b><u>Design and make a smugglers pouch</u></b></p> <p>Explore traditional authentic <b>smuggler pouch</b> designs.</p> <p>Discuss the materials that would be used in an <b>authentic</b> traditional <b>smugglers pouch</b> and how <b>hard wearing</b> they would be</p> <p>Explore how a <b>drawstring</b> or <b>button down pouch</b> is made</p> <p>Know how to <b>thread a needle, tie a knot</b> in <b>thread</b> and <b>sew fabric</b> using a <b>running stitch</b>.</p> <p>Explain your choice of <b>materials</b> and design for making a <b>pouch</b>.</p> <p>Describe how you made your <b>smuggler pouch</b>          Evaluate the <b>aesthetic</b> appearance of your <b>pouch</b>, whether it looked <b>authentic</b> and was strong enough to hold 3 coins.  <b>Contraband, strap, stick, staple, durable, strong,</b></p>
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	<p>brushes. Safely use and explore a variety of materials, tools and techniques, experimenting design, texture, form and function Share their creations, explaining the process they have used.</p> <p><b>Spring 2 On the Farm Assessment: What materials in the recycling bin can I use to make a model tractor? Make a tractor- junk modelling</b></p> <p>Look at tractor designs and the different parts of a tractor</p> <p>Explore junk materials to see which ones would be suitable for the design</p> <p>Choose the materials to make the model</p> <p>Describe how to join the objects to make a design that looks like a tractor</p> <p>Explore the materials by experimenting with joining techniques</p> <p>Share their designs</p> <p>Explain how they made their design</p>	<p>how they could make their design better. Kite, fly, sticks, frame, paper, tissue, plastic, measure, curved, diamond, shape, bend, mark, cut, stick, tape, join, thread, knot, tie</p> <p>Plans by suggesting what to do next. Selects from a range of tools, materials and components. Uses a range of food ingredients</p> <p>Can state what product they are making and describe what they are used for. Say whether their products are for themselves or other users. Use existing knowledge to generate their own designs. Begin to communicate ideas through talking and drawing. Plans by suggesting what to do next. Selects from a range of tools, materials and components.</p> <p>What materials would I choose to make a kite? Is there more than one design I could choose? Why does my choice of materials make my kite easier to fly? What designs did you think were successful and why?</p>	<p>smoothie, you use cutting, peeling, grating and blending techniques.</p> <p>Know how to prepare food safely and hygienically without using a heat source.</p> <p>Talk and write about their own product and how to make their product better.</p> <p>Begin to recognise that everyone should eat at least five portions of fruit and vegetables everyday Know how to prepare simple dishes safely and hygienically without using a heat source Use techniques e.g. cutting, peeling and grating.</p> <p>Q What does a healthy meal look like? How does food impact my well being? Which of these foods are grown in our country? What ingredients will you choose for your smoothie? How can I make sure that the smoothie has protein as well as vitamins? How did your smoothie taste? Did the combination of ingredients work?</p>	<p>Describe the finishing techniques used when making the board game to give it an aesthetic quality.</p> <p>Evaluate the final products. How well did they work and why? Which games were both functional and had authentic and aesthetic qualities? Game, board, prototype, pieces, rules, cut, join, authentic, evaluate, measure</p> <p><b>Design - Understanding contexts, users and purposes Planning Making - Practical skills and techniques</b></p> <p>Investigate and analyse a range of existing products Pupils know how to use learning from mathematics to help design and make products that work. They understand that materials have functional and aesthetic qualities. Assembles joins and combines many materials with some accuracy. Applies some finishing techniques. Demonstrate that his/her design meets a range of requirements Complete a plan that shows the order and also what equipment and tools he/she needs Use equipment and tools accurately Explain how he/she has selected appropriate materials and components to create a finished product that will be of good quality</p> <p>What types of board games do you</p>	<p>waterproof, measure, mark, cut, shape, join, assemble, accuracy, finishing techniques</p> <p>Pupils use learning from science and mathematics to help design and make products that work. They understand that materials have functional and aesthetic qualities. Apply this thinking successfully in their own products. Recognise that materials can be combined and mixed to create more useful characteristics. Know that a single fabric shape can be used to make a 3D textile product.</p>	
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		<p>Describe what they like and what they would change to <b>improve their design</b></p> <p>What junk materials look like parts of a tractor? How could you join the materials together? Does the design look like a tractor?</p>		<p>Which smoothie recipe was your favourite and why? If you were to make your smoothie again, what changes would you make to your recipe?</p>	<p>have at home? Which board game designs do you like and why? How can we use maths to help us design the board game? How could you link the 'Stone Age' to the design of your board game? Why is it important to make your design functional and aesthetic? Is your board game functional and aesthetic? Why?</p>	
Summer	<p><b>Ongoing throughout the year:</b></p> <p>Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park.</p> <p>Explore different materials freely, in order to develop their ideas about how to use them and what to make.</p> <p>Develop their own ideas and then decide which materials to use to express them.</p> <p>Create closed shapes with continuous lines, and begin to use these shapes to represent objects.</p>	<p><b>Growing Summer 1</b> <b>Split pin soldiers</b> <b>Assessment: How can a split pin soldier's arms and legs move?</b> Look at examples of <b>split pin</b> characters</p> <p>Explore how they move</p> <p>Begin to talk about the <b>raincoat design</b>.</p> <p><b>Draw</b> their design.</p> <p>Select from a <b>range of materials</b> for the <b>raincoat design</b>.</p> <p><b>Cut</b> and <b>join</b> the <b>materials</b>.</p> <p><b>Talk</b> about their own and other <b>designs</b>.</p> <p><b>Talk</b> about how they could make their <b>product</b> better.</p> <p><b>What materials can be shaped to</b></p>	<p><b>Around the World</b> <b>Assessment: What combination of ingredients would make a tasty healthy vegetarian salad?</b></p> <p>Name the food groups on 'The Eatwell Plate' and begin to know that we should eat at least 5 portions of <b>fruit</b> and <b>vegetables</b> everyday.</p> <p>Recognise that food comes from plants or animals.</p> <p>Food is <b>farmed</b> or <b>grown</b> elsewhere that we use to prepare <b>simple dishes</b>.</p> <p>Name three <b>ingredients</b> that are grown in the UK in the summer that could be included in a <b>salad</b>.</p> <p>Explain your choices of <b>ingredients</b> for your <b>healthy salad</b> and describe what techniques you would use to</p>	<p><b>Oceans</b> <b>Assessment: What recyclable materials could I choose to make a functioning litter picker?</b></p> <p>Understand why it is important to dispose of <b>litter</b> responsibly.</p> <p>Explore a range of <b>litter picker designs</b> including those made with <b>recyclable materials</b>.</p> <p>Explain how your design will work, the components you have added to your <b>design</b> and the choices of <b>recycled materials</b> for a working <b>litter picker</b>.</p> <p>Make simple judgements about their <b>products</b> against design criteria.</p>	<p><b>Stone Age V Iron Age</b> <b>Assessment: How can I assemble and join materials to make an image move?</b> <b>Design and make a moving image using levers and linkages.</b></p> <p>Identify a <b>lever</b> and <b>linkage</b>.</p> <p>Explain the difference between a <b>lever</b> and a <b>linkage</b>.</p> <p>Describe how a <b>lever</b> and <b>linkage</b> works.</p> <p>Know that <b>levers and linkages</b> work by using <b>pivots</b> that are fixed and loose.</p> <p>Understand that accuracy in <b>measuring</b> and <b>joining</b> the parts of the <b>lever and linkage</b> design will affect the movement of the design.</p> <p>Understand that the choice of <b>materials</b> and <b>finishing</b></p>	<p><b>Boudica</b> <b>Assessment: How does a lemon battery work?</b> <b>To design and make an eco battery</b></p> <p>Identify the positive and negative ends of a common <b>battery</b>.</p> <p>Explore <b>battery designs</b>, know key inventions: <b>Parthian Battery</b> - 2,000 years ago, <b>Leyden Jar battery</b> 1744, <b>Alessandro Volta</b> - electrochemical battery 1800</p> <p>Understand that there are 3 key elements that make a <b>lemon battery functional</b>: Copper - positive Iron - negative Lemon juice - <b>electrolyte</b></p> <p>Investigate what other <b>fruits</b> and <b>vegetables</b> can be used as an <b>electrolyte</b></p>





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	<p>make a raincoat for a bear? How will I join the materials? Did the raincoat fit the bear and did it keep off the rain?</p> <p>Begin to show accuracy and care when drawing. Use a range of small tools, including scissors and paint brushes. Safely use and explore a variety of materials, tools and techniques, experimenting design, texture, form and function Share their creations, explaining the process they have used.</p> <p><b>Growing Summer 2</b> <b>Fruit kebabs</b> <b>Assessment:</b> <b>How would you design a fruit kebab that a reception child would want to eat?</b></p> <p>Look at fruits that could be threaded onto a kebab stick</p> <p>Select fruits to use in a fruit kebab based on colour, texture and taste</p> <p>Draw the design.</p> <p>Know that you need to wash your hands before preparing food</p> <p>Cut the fruit and join by threading onto a stick.</p>	<p>prepare your dish, e.g. cutting, peeling, grating and mixing.</p> <p>Explain why it is important that we follow hygiene rules when preparing food.</p> <p>Talk about what was good about the salad you made and what you might change or add to make it better.</p> <p><b>Salad, vegetables, fruit, seasonal, fresh, eatwell plate, hygiene, wash, knife, cut, slice, chop, mix, dress, serve</b></p> <p>Follows procedures for safety and hygiene. Uses a range of food ingredients &amp; mechanical products.</p> <p>Finishing skills, including food hygiene Basic food handling, hygienic practices and personal hygiene, including how to control risks Using a variety of tools and equipment to peel, cut, grate, mix and mould food The nutritional value of fruit and vegetables in a balanced diet Recognise that food comes from plants or animals. Food is farmed, grown elsewhere or caught Name foods and sort foods into the five groups in 'The Eatwell Plate'. Begin to recognise that everyone</p>	<p>Talk and write about how to improve their product.</p> <p>Design purposeful, functional, appealing products for themselves and other users based on design criteria What is the purpose of the product? How do existing products work? What recycled materials will you choose for your litter picker and why? How will your design work? Was your design successful? Which design worked best? What would you do differently next time?</p>	<p>techniques will result in a good quality design.</p> <p>Describe your lever and linkage design and how it will move when the lever is operated.</p> <p>Investigate and analyse how well products have been designed and made; which materials and methods were successful; how well products worked; whether they achieved their purpose. Design, lever, link, movement, slide, pivot, split pin, materials, measure, cut, join, assemble, test, evaluate</p> <p>Pupils know how to use learning from science and mathematics to help design and make products that work. They understand that materials have functional and aesthetic qualities. Recognise that materials can be combined and mixed to create more useful characteristics. Know how mechanical systems such as levers and linkages create movement.</p> <p>How can you make a picture move? Are there different ways we can make a picture move? Can you describe how a lever works? What materials would you choose to make your moving picture? Why is it also important to make your design with aesthetic qualities? How well did your design work?</p>	<p>Explain the choice of fruit and vegetable for your battery design and the 'eco' design logo on the label/packaging and why this will help the environment.</p> <p>Evaluate the effectiveness of the battery and investigate and analyse the aesthetic quality of the logo design.</p> <p>Battery, conductors, electricity, Leyden Jar Battery, Alessandro Volta, Parthian Battery, metal, electrolyte, join, circuits, bulbs, light.</p> <p>Know that simple electrical circuits and components can be used to create functional products</p> <p>Marking out and cutting</p> <ul style="list-style-type: none"> <li>• Develop digital working prototypes</li> <li>• Mechanical and control skills</li> <li>• Understand simple electrical control.</li> <li>• Understand how to use digital technology to produce simulations using a computer control programme – inputs and outputs,</li> </ul>	
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		<p>Talk about their own and other designs.</p> <p>Talk about how they could improve their product.</p> <p>What fruits look good together on a fruit kebab? How will I join the materials? Did the kebab look and taste good? Would you try different fruits next time?</p> <p>Begin to show accuracy and care when drawing. Use a range of small tools, including scissors and paint brushes. Safely use and explore a variety of materials, tools and techniques, experimenting design, texture, form and function Share their creations, explaining the process they have used.</p>	<p>should eat at least five portions of fruit and vegetables everyday. Start to prepare simple dishes. Use techniques e.g. cutting, peeling and grating. What foods are in an eatwell plate? What types of food from around the world have you tasted? Why is a salad a healthy dish? What ingredients do you like in a salad? What ingredients might you include in a Mediterranean salad? Can you describe the flavours in your salad? Which salads did you like the most and why?</p>			
<p><b>Yr 5 Textiles</b> Design and make a felt toy aesthetics and function. Annotated designs, paper template. How to sew a running stitch, backstitch and blanket stitch. Finally, when they have made their felt toy.</p>		<p><b>Yr 5 Food Technology</b> Designing a salad including: 5 different vegetables, a source of protein, a source of fat/dairy, a source of carbohydrate Work confidently and safely work in a kitchen to make healthy food products</p> <p><b>Practical:</b> Designing and making a healthy salad</p> <p><b>Writing task</b> - students will learn how to write a detailed evaluation.</p>		<p><b>Yr 5 Resistant Materials</b> Designing a freestanding bridge Learning about bridge designs: beam bridge, cantilever bridge, arch bridge, suspension bridge.</p> <p><b>Practical:</b> Designing and building a freestanding, strong and durable structure</p>		



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<p><b>Practical:</b> Designing and making a felt toy</p> <p><b>Writing task</b> - students will learn how to write a detailed evaluation.</p>		<p><b>Writing task</b> - students will learn how to write a detailed evaluation.</p>
<p><b>Yr 6 Textiles</b> Design and create a fabric cushion to raise awareness of plastic pollution in our seas. Experiment with heat transfer techniques. Tack, hand sew and machine sew seams.</p> <p><b>Practical:</b> Designing and making a cushion</p> <p><b>Writing task</b> - students will learn how to write a detailed evaluation.</p>	<p><b>Yr 6 Food Technology</b> Design and create a variety of dishes containing fruit - rock cakes, crumble, flapjacks and cheesecake. Measure, weigh, peel, chop, blend ingredients. Using the bridge and claw techniques to cut fruit safely. Using heat proof dishes to heat and cook ingredients.</p> <p><b>Practical:</b> Designing a variety of dishes using a heat source</p> <p><b>Writing task</b> - students will learn how to write a detailed evaluation.</p>	<p><b>Yr 5 Photo Frame</b> Build a creative, colourful and accurate picture frame. Create an end product that is fit for purpose. Use soft wood, a coping saw and glue gun. Create a focussed Design Criteria taking into consideration the end user. Use precision in the design process. Test and evaluate your findings and redesign ideas</p> <p><b>Practical:</b> Designing and creating a photo frame</p> <p><b>Writing task</b> - students will learn how to write a detailed evaluation.</p>