

Enmore Church of England Primary School

'Those who are taught here must
go out and teach others'

Rev J. Poole, Founder, 1810



'I have set you an example that you
should do as I have done for you.'

John 13: 15

DT for Website

Background



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

Enmore follows our tailored [Early Years Foundation Stage Curriculum](#) and the statutory EYFS Framework which can be found [here](#), and the National Curriculum programmes of study which can be found [here](#).

Vision

The school's vision and values underpin all subjects taught at Enmore. The page below illustrates how DT is influenced by these values and, as a result, illustrates what you would expect to see in classrooms.

Vision

- To have high expectations

What this looks like in DT

- Learning behaviours are excellent
- Poor behaviour is uncommon and is challenged
- Marking is high quality
- teaching spaces are kept tidy and are well- organised

Vision

- A broad curriculum offer

What this looks like in DT

- Displays and work in books reflects a broad curriculum
- classes have topics but discrete subjects are taught
- Cross- curricular links used when possible

Vision

- An inclusive curriculum

What this looks like in DT

- All children have access to the curriculum
- Pre, post and during interventions used as appropriate, aimed at removing barriers to learning

Vision

- A mastery approach

What this looks like in DT

- Whole class teaching is predominant
- children who have mastered topics are given opportunities to support less confident
- low stakes testing and retrieval exercises used where appropriate

Vision

- Expose children to diversity

What this looks like in DT

- Exposure to designs, products and designers from different cultures, religions and communities.
- Visits or visitors invited into school that allow children to develop their understanding and respect for diversity.

Vision

- Ask Big Questions

What this looks like in DT

- Encouraged to express their feelings, thoughts and preferences.
- Discuss the impact of techniques, materials and designers.

Vision

- Close vocabulary gap for disadvantaged children

What this looks like in DT

- Key vocabulary explicitly taught and repeatedly used in context
- Key Stage 2 DT books incorporate key vocabulary for children to refer to.
- Key Stage 2 DT books use 'Write about...' scaffolding sheets, linked to evaluation.

Vision

- Reinforce school, Christian and British values

What this looks like in DT

- Study designs/ designers/ topics that celebrate the diversity of British culture, climate and environment.
- Encourage a Mastery approach
- Look at designs from different religions and countries.

Vision

- To develop the children as individuals and give responsibility

What this looks like in DT

- Give responsibilities for specific tasks/ jobs
- Allow for creative autonomy

- Encourage individuality when developing their work and ideas

DT

Vision	What this will look like in DT
<ul style="list-style-type: none"> • To be of high quality with high expectations 	Children's learning behaviours are excellent. Poor behaviour is uncommon. Poor behaviour is challenged. Marking is of high quality. Teaching spaces are kept tidy and are organised efficiently.
<ul style="list-style-type: none"> • A broad curriculum offer 	Displays reflect a broad curriculum. Work in books reflects a broad curriculum. Classes have topics but discrete subjects are taught. Children are taught MFL from year 1. All KS2 children learn a musical instrument. IPC units cross-referenced with National Curriculum to ensure full coverage.
<ul style="list-style-type: none"> • An inclusive curriculum 	All children have access to the curriculum.
<ul style="list-style-type: none"> • A mastery approach 	Pre, post and intervention teaching aimed at removing barriers to learning.
<ul style="list-style-type: none"> • Expose children to diversity 	More capable children have opportunities to support others in their learning.
<ul style="list-style-type: none"> • Emphasis on international element of the curriculum and issues 	Evidence of other faiths/cultures
<ul style="list-style-type: none"> • Asking big questions and enjoying enquiry 	Curriculum based on IPC themes and units.
<ul style="list-style-type: none"> • Close vocabulary gap for disadvantaged 	Questions on displays, in books, on planning
<ul style="list-style-type: none"> • Reinforce Christian and British values 	Planning to include key vocabulary/concepts sheet
<ul style="list-style-type: none"> • To develop as individuals 	Values to be incorporated into all teaching Evident in classroom displays
	Opportunities for classroom responsibility/ leadership Safeguarding and internet safety given a high priority Promotion of growth mindset

Subject Intent/Rationale

DT Scheme of Work.

Design Technology

The children should work in a range of relevant contexts e.g. the home and school, gardens and playgrounds, the local community, industry and the wider environment.

Developing, Planning and Designing

Understanding contexts, users and purposes. Generating, developing, modelling and communicating ideas.

Class 1	Class 2	Class 3	Class 4	Class 5
Draw on their own experiences to help generate ideas and research conducted on criteria. Suggest ideas and explain what they are going to do. Begin to develop their ideas through talk and drawings. Make templates and mock-ups of their ideas in card and paper or using ICT. Model ideas by exploring materials, components and construction kits. Use knowledge of existing products to help come up with ideas.	Identify a purpose for what they intend to design and make. Identify their target group and say how their product will be suitable. Design purposeful, functional, appealing products based on design criteria. Generate, develop, model and communicate their ideas through talk, drawing, templates, mock-ups and IT (where appropriate). Model ideas by exploring materials, components and construction kits.	Follow design criteria. Identify the design features of their products that will appeal to intended customers. Understand how well products have been designed, made, what materials have been used and the construction technique. Use their knowledge of a broad range of existing products to help generate their ideas. Design innovative and appealing products that	Begin to use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose. When planning, start to explain their choice of materials and components, including function and aesthetics. Explain how particular parts of their products work. When designing, explore different initial ideas before coming up with a final design.	Use research and develop design criteria to inform the design of innovative, functional, appealing product that are fit for purpose and aimed at their target audiences. Use their knowledge of a broad range of existing products to help generate their ideas. Explain how particular parts of their products work. Generate a range of design ideas and clearly communicate final designs. Use annotated sketches, exploded diagrams, cross-

Work in a range of different contexts e.g. imaginary, story-based, home, school and the wider environment.	Use knowledge of existing products to help come up with ideas. Work in a range of different contexts e.g. imaginary, story-based, home, school and the wider environment.	have a clear purpose and are aimed at a specific user. When planning, start to explain their choice of materials. Use annotated sketches to communicate their ideas. Learn about some inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.	Use annotated sketches, and cross-sectional drawings to communicate their ideas. Test ideas through use of prototypes. Use computer-aided design to develop and communicate their ideas. Learn about some inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.	sectional drawings and prototypes to communicate their ideas. Test ideas through use of prototypes. Use computer-aided design to develop and communicate their ideas. Know how much products cost to make, how sustainable and innovative they are, and the impact products have beyond their intended purpose. Learn about some inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.
Key Vocabulary				
Plan • Draw • Ideas • Design	• Plan • Prepare • Design • Materials • Ideas • Use • Model • Development • Market Research • Survey • Template	• Plan • Organise • Prototype • Initial ideas • Criteria • Diagrams • Labels • Annotate • Brief • Product • Consumer • Customer • Target audience • Purpose • Application • Constraints • Client		

Making

Planning and practical skills and techniques.

Class 1	Class 2	Class 3	Class 4	Class 5
<p>Plan:</p> <p>With support, follow a simple plan or recipe.</p> <p>Begin to select from a range of hand tools and equipment, such as scissors, safe knives, Sellotape dispensers, hole punchers, rolling pins, shape cutters, moulds.</p> <p>Select from a range of materials, textiles and components, <u>including</u> <u>textiles</u> and food ingredients.</p> <p>Practical Skills and Techniques:</p> <p>Learn to use hand tools and kitchen equipment safely and <u>appropriately, and</u> learn to follow hygiene procedures.</p>	<p>Plan:</p> <p>With support, follow a simple plan or recipe.</p> <p>Begin to select from a range of hand tools and equipment, such as scissors, safe knives, graters, zesters, juicers. Explain their choices.</p> <p>Select from a range of materials, textiles and components, <u>including</u> <u>textiles</u> and food ingredients.</p> <p>Practical Skills and Techniques:</p> <p>Learn to use hand tools and kitchen equipment safely and <u>appropriately, and</u> learn to follow hygiene procedures.</p>	<p>Plan:</p> <p>With growing confidence, carefully select from a range of tools and equipment, explaining their choices.</p> <p>With support, select from a range of materials and components according to their functional properties and aesthetic qualities.</p> <p>With support, order the main stages of making.</p> <p>Practical Skills and Techniques:</p> <p>Learn to use hand tools and kitchen equipment safely and <u>appropriately, and</u> learn to follow hygiene procedures.</p> <p>Use a wider range of materials and components, <u>including</u> <u>textiles</u> and food</p>	<p>Plan:</p> <p>With growing confidence, carefully select from a range of tools and equipment, explaining their choices.</p> <p>Select from a range of materials and components according to their functional properties and aesthetic qualities.</p> <p>Plan the main stages of making in a systematic order.</p> <p>Practical Skills and Techniques:</p> <p>Learn to use hand tools and kitchen equipment safely and <u>appropriately, and</u> learn to follow hygiene procedures.</p> <p>Use a wider range of materials and components,</p>	<p>Plan:</p> <p>Independently plan by suggesting what to do next.</p> <p>With growing confidence, carefully select from a range of tools and equipment, explaining their choices.</p> <p>Select from a range of materials and components according to their functional properties and aesthetic qualities. Explain their choices.</p> <p>Create step-by-step plans as a guide to making.</p> <p>Produce appropriate lists of tools, equipment and materials that they will need.</p> <p>Practical Skills and Techniques:</p>

<p>Use a range of materials and components, including textiles and food ingredients, construction materials and kits.</p> <p>With help, mark out, cut and shape a range of materials.</p> <p>Cut and shape materials with some degree of control.</p> <p>With support, assemble, join and combine materials, components and ingredients.</p> <p>Manipulate fabrics in simple ways to create a desired effect.</p>	<p>Use a range of materials and components, including textiles and food ingredients, construction materials and kits, and mechanical components.</p> <p>With help, measure, mark out, cut and shape a range of materials.</p> <p>Cut and shape materials with some accuracy.</p> <p>Assemble, join and combine materials, components and ingredients.</p> <p>Use finishing techniques to improve the appearance of their product, including those from art and design.</p> <p>Manipulate fabrics in simple ways to create a desired effect.</p> <p>Use a basic running stitch.</p> <p>Cut, peel and grate ingredients, including measuring and weighing</p>	<p>ingredients, construction materials and kits, and mechanical components.</p> <p>With growing independence, measure, and mark out to the nearest centimetre.</p> <p>Cut, shape and score materials with some degree of accuracy.</p> <p>Assemble, join and combine materials and components with some degree of accuracy.</p> <p>Demonstrate how to cut, shape and join fabric with some accuracy to make a simple product.</p> <p>Join textiles with an appropriate sewing technique.</p> <p>Begin to select and use different and appropriate finishing techniques to improve the appearance of a product such as hemming,</p>	<p>including textiles and food ingredients, construction materials and kits, and mechanical and electrical components.</p> <p>With growing independence, measure, and mark out to the nearest centimetre and millimetre.</p> <p>Cut, shape and score materials with some degree of accuracy.</p> <p>Demonstrate how to measure, cut, shape and join fabric with some accuracy to make a simple product.</p> <p>Join textiles with an appropriate sewing technique.</p> <p>Begin to select and use different and appropriate finishing techniques to improve the appearance of a product such as hemming, fabric paints and digital graphics.</p>	<p>Learn to use a range of tools and kitchen equipment safely and <u>appropriately</u>, and learn to follow hygiene procedures.</p> <p>Independently take exact measurements and mark out, to within 1 millimetre.</p> <p>Use a full range of materials and components, including construction materials and kits, textiles and mechanical and electrical components.</p> <p>Cut a range of materials with precision and accuracy.</p> <p>Shape and score materials with precision and accuracy.</p> <p>Assemble, join and combine materials and components with accuracy.</p> <p>Demonstrate how to measure, make seam allowance, tape, pin, cut, shape and join fabric with precision to make more complex products.</p>
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	<p>ingredients using measuring cups.</p>	<p>fabric paints and digital graphics.</p>		<p>Join textiles using a greater variety of stitches, such as backstitch and whip stitch.</p> <p>Refine the finish using techniques to improve the appearance of their product, such as sanding, or a precise scissor cut after roughly cutting out a shape. Demonstrate resourcefulness when tackling practical problems.</p>
<p>Key Vocabulary</p>				
<p>Make • Build • <u>Combine</u></p> <p>• Join • Shape • Tools</p>	<p>Fast • Slow • Faster</p> <p>• Slower • Up • Down</p> <p>• Turn • Wind up • Design</p> <p>• Draw • Sketch • Tools</p> <p>• Fix • Glue • Attach</p> <p>• Features • Brick • Wood</p> <p>• Stone • Cloth • Metal</p> <p>• Foam • Felt • Paper</p> <p>• Tissue • Newspaper</p> <p>• Cardboard • String • Wool</p> <p>• Clay • Scissors • Glue</p> <p>• Tape • Cut • Stick</p> <p>• Decorate</p>	<p>Materials • Mould • Liquid • Solid • Form • Shape • Adhesive • Lattice • <u>Mass-produce</u></p> <p>• Hand-made • Packaging • Presentation • Machine made • Dimensions • Durable</p>		

Evaluating

Evaluating their own ideas and existing products.

Class 1	Class 2	Class 3	Class 4	Class 5
<p>Own Ideas and Products:</p> <p>Talk about their design ideas and what they are making.</p> <p>Evaluate their products as they are developed, identifying the things that they like/ strengths, whether they are happy with the final product and things that they might change if they were to do it again.</p> <p>Existing Products:</p> <p>Explore and evaluate existing products mainly through discussions and comparisons.</p>	<p>Own Ideas and Products:</p> <p>Talk about their design ideas and what they are making.</p> <p>Make simple judgements about their products and ideas against design criteria.</p> <p>Suggest how their products could be improved.</p> <p>Start to understand that the iterative process sometimes involves repeating different stages of the process.</p> <p>Existing Products:</p> <p>Explore and evaluate existing products mainly through discussions, comparisons and written evaluations.</p> <ul style="list-style-type: none"> - What the products are - who the products are for 	<p>Own Ideas and Products:</p> <p>Evaluate their product against the original design criteria. How well does it meet its intended purpose?</p> <p>Existing Products:</p> <p>Explore and evaluate existing products, explaining the purpose of the product and whether it is designed well to meet its intended purpose. Including</p> <ul style="list-style-type: none"> -where products were designed and made -when products were designed and made <p>Explore what materials/ ingredients products are made from and suggest reasons for this.</p>	<p>Own Ideas and Products:</p> <p>Evaluate their product against the original design criteria. How well does it meet its intended purpose?</p> <p>Consider the ideas of others to improve their work.</p> <p>Consider their design criteria as they make progress and are willing to alter their plans.</p> <p>Existing Products:</p> <p>Explore and evaluate existing products, explaining the purpose of the product and whether it is designed well to meet its intended purpose. Including</p> <ul style="list-style-type: none"> -how well have products been made -what methods of construction have been used 	<p>Own Ideas and Products:</p> <p>Critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make.</p> <p>Evaluate their ideas and products against their original design specification.</p> <p>Existing Products:</p> <p>Explore and evaluate existing products, explaining the purpose of the product and whether it is designed well to meet its intended purpose.</p> <ul style="list-style-type: none"> -Including -how well have products been made -what methods of construction have been used -how well products work and achieve their purposes

	<ul style="list-style-type: none"> - what the product is for - how the products work - how they are used - what materials products are made from - what they like/ dislike about the products. 		<ul style="list-style-type: none"> -how well products work and achieve their purposes -how well products meet user's need and wants -who designed and made the products -where products were designed and made -when products were designed and made -whether products can be reused or recycled <p>Evaluate the key events, including technological developments, and designs of individuals in design and technology that have helped shape the world e.g. Sir Isaac Newton, Wright Brothers, Brunel etc.</p>	<ul style="list-style-type: none"> -how well products meet user's need and wants -who designed and made the products -where products were designed and made -when products were designed and made -whether products can be reused or recycled -how much products cost to make -how innovative products are -how sustainable the materials in products are -what impact products have beyond the intended purpose. <p>Evaluate the key events, including technological developments, and designs of individuals in design and technology that have helped shape the world e.g. Sir Isaac Newton, Wright Brothers, Brunel etc.</p>
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Key Vocabulary			
<ul style="list-style-type: none"> • Change • Like • Dislike • Next time • Better • Worse • Different 	<ul style="list-style-type: none"> • Change • Improve • <u>Prefer</u> • Useful • Unsuccessful • Future • Progress • modify • Alter • Adapt • Original • Finished article • Evaluate • Graphics 	<ul style="list-style-type: none"> Assess • Edit • Improve • Alter • Outcome • Develop • Test • Analyse 	<ul style="list-style-type: none"> Effective • Fit for purpose • Design criteria • Alternatives • Models • Quality • Function • Functionality

Technical Knowledge

Knowing how products work.

Class 1	Class 2	Class 3	Class 4	Class 5
<p>Build simple structures, exploring how they can be made stronger, stiffer, more stable.</p> <p>Talk about and start to understand the simple working characteristics of materials and components.</p> <p>Explore and use mechanisms e.g. levers, sliders, wheels and axels.</p>	<p>Build simple structures, exploring how they can be made stronger, stiffer, more stable.</p> <p>Talk about and start to understand the simple working characteristics of materials and components.</p> <p>Explore and create products using mechanisms, such as levers, axels and wheels.</p> <p>Use the correct technical vocabulary for the projects they are undertaking.</p>	<p>Know how to use learning from science and mathematics to help design and make products that work.</p> <p>They understand and use mechanical systems in their products.</p> <p>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.</p> <p>Know that materials have both functional properties and aesthetic qualities.</p> <p>Understand that materials can be combined and mixed to create more useful characteristics.</p> <p>Understand and demonstrate how mechanical systems have an input and output process.</p>	<p>Know how to use learning from science and mathematics to help design and make products that work.</p> <p>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.</p> <p>Know that materials have both functional properties and aesthetic qualities.</p> <p>Know how mechanical systems such as cams or pulleys or gears create movement.</p> <p>Understand and demonstrate how mechanical and electrical systems have an input and output process.</p> <p>Know how simple electrical circuits and components can</p>	<p>Know how to use learning from science and mathematics to help design and make products that work.</p> <p>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures <u>in order to</u> create more useful characteristics of products.</p> <p>Understand and demonstrate that mechanical and electrical systems have an input, process and output.</p> <p>Explain how mechanical systems, such as cams, create movement.</p> <p>Apply their understanding of computing to program, monitor and control a product.</p>

		<p>Explain how mechanical systems such as levers and linkages, and pneumatic systems create movement.</p> <p>Use mechanical systems in their products.</p> <p>Know how to program a computer to control their products.</p> <p>That a single fabric shape can be used to make 3D textiles products.</p> <p>That food ingredients can be fresh, pre-cooked and processed.</p> <p>Use the correct technical vocabulary for the projects they are undertaking.</p>	<p>be used to create functional products.</p> <p>Use mechanical and electrical systems in their products.</p> <p>Know how to program a computer to control their products.</p> <p>That a single fabric shape can be used to make 3D textiles products.</p> <p>That food ingredients can be fresh, pre-cooked and processed.</p> <p>Use the correct technical vocabulary for the projects they are undertaking.</p>	<p>Use mechanical and electrical systems in their products.</p> <p>Know that 3D textiles products can be made from a combination of fabric shapes.</p> <p>That a recipe can be adapted by adding or substituting one or more ingredients.</p> <p>Use the correct technical vocabulary for the projects they are undertaking.</p>
Key Vocabulary				
Use vocabulary associated for all the areas of D: Designing, Making, Evaluating and Cooking and Nutrition.				

Cooking and Nutrition

Knowing where food comes from. Knowing about food preparation, cooking and nutrition.

Class 1	Class 2	Class 3	Class 4	Class 5
<p>Know where foods come from:</p> <p>Understand that all foods come from plants or animals.</p> <p>Know that food has to be farmed, grown elsewhere (e.g. home) or caught.</p> <p>Food preparation, cooking and nutrition:</p> <p>Know how to use techniques such as cutting and spreading, with support.</p> <p>Understand that everyone should at least 5 portions of fruit and vegetables every day and explain why.</p> <p>Understand that some foods should be eaten in moderation.</p>	<p>Know where foods come from:</p> <p>Understand that all foods come from plants or animals.</p> <p>Know that food has to be farmed, grown elsewhere (e.g. home) or caught.</p> <p>Food preparation, cooking and nutrition:</p> <p>Know how to name and sort foods into the 5 groups in the Eatwell Guide.</p> <p>Use what they know about the Eatwell Guide to design and prepare dishes.</p> <p>Know how to prepare simple dishes safely and hygienically, without a heat source.</p>	<p>Know where foods come from:</p> <p>Start to know when, where, and how food is grown (such as herbs, tomatoes and strawberries) in the UK, Europe and the wider world.</p> <p>Food preparation, cooking and nutrition:</p> <p>Understand how to prepare and cook a variety of predominantly savoury dishes safely and hygienically.</p> <p>With support, use a heat source to cook ingredients showing awareness of the need to control temperature of the hob, oven or grill.</p> <p>Use a range of techniques such as mashing, whisking, crushing, grating, cutting, kneading and baking.</p>	<p>Know where foods come from:</p> <p>Start to know when, where, and how food is grown (such as herbs, tomatoes and strawberries) in the UK, Europe and the wider world.</p> <p>Know that foods are grown (crops) reared (livestock) and caught (fish).</p> <p>Food preparation, cooking and nutrition:</p> <p>Understand how to prepare and cook a variety of predominantly savoury dishes safely and hygienically.</p> <p>With support, use a heat source to cook ingredients showing awareness of the need to control temperature of the hob, oven or grill.</p>	<p>Know where foods come from:</p> <p>Know, explain and give examples of food that is grown, reared, and caught in the UK, Europe and the wider world.</p> <p>Know that seasons may affect the food available. Plan recipes accordingly.</p> <p>Know how food is processed into ingredients that can be eaten or used in cooking.</p> <p>Food preparation, cooking and nutrition:</p> <p>Demonstrate how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source.</p>

	<p>Know how to use techniques such as cutting, peeling, and grating.</p>	<p>Use appropriate cooking utensils.</p> <p>Explain that a healthy diet is made up of a variety and balance of different food and drink, as represented in the Eatwell Guide and be able to apply these principles when planning and cooking dishes.</p> <p>Understand that to be active and healthy, nutritious food and drink are needed to provide energy for the body.</p> <p>Follow a recipe with some support.</p>	<p>Use a range of techniques such as mashing, whisking, crushing, grating, cutting, kneading and baking.</p> <p>Explain that a healthy diet is made up of a variety and balance of different food and drink, as represented in the Eatwell Guide and be able to apply these principles when planning and cooking dishes.</p> <p>Prepare ingredients using appropriate cooking utensils.</p> <p>Measure and weigh ingredients to the nearest gram and millilitre.</p> <p>Start to independently follow a recipe.</p> <p>Start to understand seasonality.</p>	<p>Demonstrate how to use a range of techniques such as griddling, grilling, frying and boiling.</p> <p>Prepare ingredients using appropriate cooking utensils.</p> <p>Explain that foods contain different substances, such as protein, that is needed for health and be able to apply these principles when planning and preparing dishes.</p> <p>Adapt and refine recipes by adding or substituting one or more ingredients to change the appearance, taste, texture and aroma.</p> <p>Alter methods, cooking times and/ or temperatures.</p> <p>Measure accurately and calculate ratios of ingredients to scale up or down from a recipe.</p> <p>Independently follow a recipe.</p>
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Progression/Key "sticky" Knowledge

Sticky Knowledge

Design Technology (Sticky Knowledge)					
At KS1, the Sticky Knowledge headings take full account of the National Curriculum's main characteristics.					
	Designing	Making	Evaluating	Technical Knowledge	Food Technology
	<p>Design - purposeful, functional, appealing products for themselves and other users based on design criteria Design - generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.</p>	<p>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>	<p>Explore and evaluate a range of existing products evaluate their ideas and products against design criteria.</p>	<p>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>	<p>Use the basic principles of a healthy and varied diet to prepare dishes understand where food comes from.</p>
Class 1	<ul style="list-style-type: none"> use own ideas to design something and describe how their own idea works design a product which moves explain to someone else how they want to make their product and make a simple plan before making 	<ul style="list-style-type: none"> use own ideas to make something make a product which moves choose appropriate resources and tools. 	<ul style="list-style-type: none"> describe how something works explain what works well and not so well in the model they have made 	<ul style="list-style-type: none"> make their own model stronger 	<ul style="list-style-type: none"> cut food safely
Class 2	<ul style="list-style-type: none"> think of an idea and plan what to do next explain why they have chosen specific textiles 	<ul style="list-style-type: none"> choose tools and materials and explain why they have chosen them join materials and components in different ways measure materials to use in a model or structure 	<ul style="list-style-type: none"> explain what went well with their work 	<ul style="list-style-type: none"> make a model stronger and more stable use wheels and axles, when appropriate to do so 	<ul style="list-style-type: none"> weigh ingredients to use in a recipe describe the ingredients used when making a dish or cake

Design Technology (Sticky Knowledge)
At KS2, the Sticky Knowledge headings take full account of the National Curriculum's main characteristics

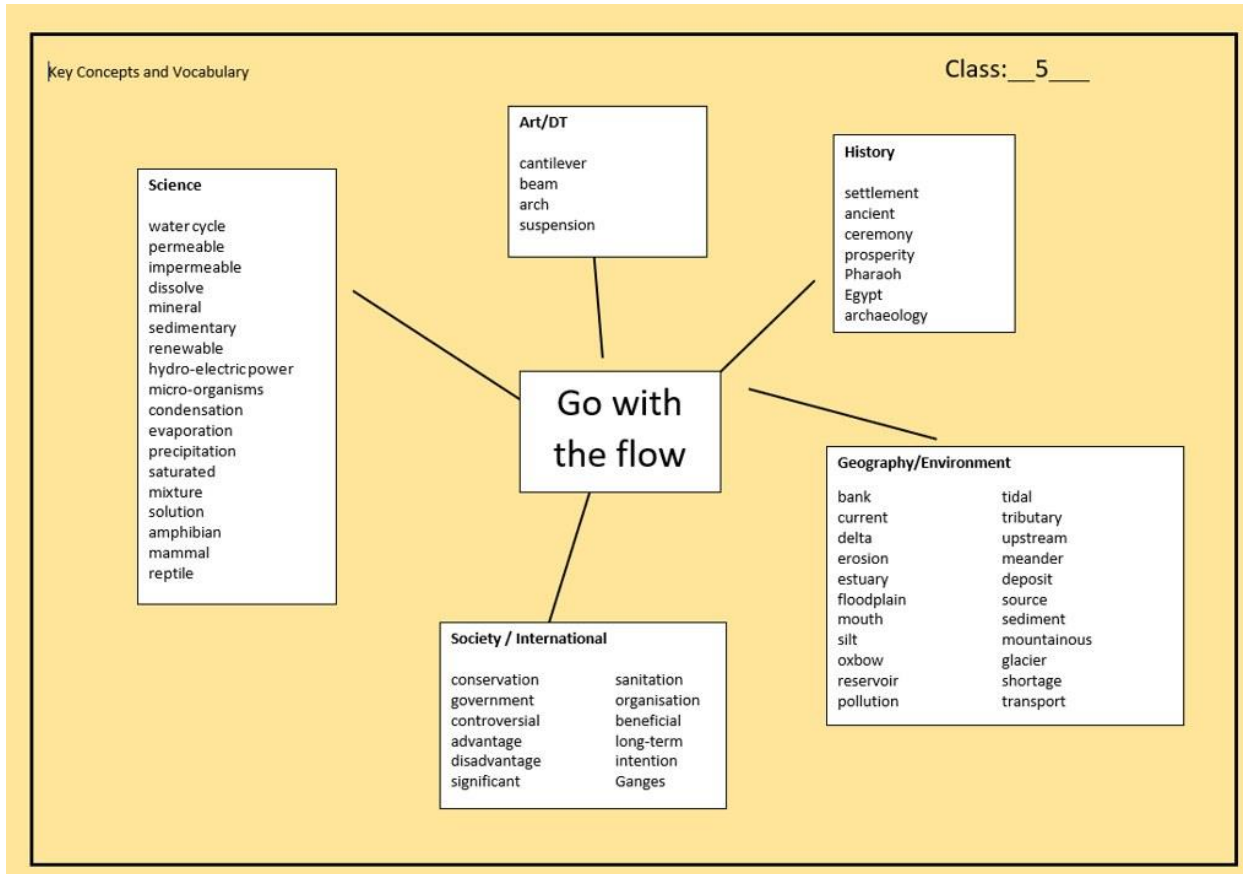
	Designing	Making	Evaluating	Technical Knowledge	Food Technology
	Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.	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 wide range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.	Investigate and analyse a range of existing products evaluate their ideas and products against their own design criteria and consider the views of others to improve their work understand how key events and individuals in design and technology have helped shape the world.	Apply their understanding of how to strengthen, stiffen and reinforce more complex structures 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.	Understand and apply the principles of a healthy and varied diet prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.
Class 3	<ul style="list-style-type: none"> • prove that a design meets a set criteria. • design a product and make sure that it looks attractive • choose a material for both its suitability and its appearance 	<ul style="list-style-type: none"> • follow a step-by-step plan, choosing the right equipment and materials • select the most appropriate tools and techniques for a given task • make a product which uses both electrical and mechanical components • work accurately to measure, make cuts and make holes 	<ul style="list-style-type: none"> • explain how to improve a finished model • know why a model has, or has not, been successful 	<ul style="list-style-type: none"> • know how to strengthen a product by stiffening a given part or reinforce a part of the structure • Use a simple IT program within the design 	<ul style="list-style-type: none"> • describe how food ingredients come together • weigh out ingredients and follow a given recipe to create a dish • talk about which food is healthy and which food is not • know when food is ready for harvesting

Class 4	<ul style="list-style-type: none"> • come up with a range of ideas after collecting information from different sources • produce a detailed, step-by-step plan • explain how a product will appeal to a specific audience • design a product that requires pulleys or gears 	<ul style="list-style-type: none"> • use a range of tools and equipment competently • make a prototype before making a final version • make a product that relies on pulleys or gears 	<ul style="list-style-type: none"> • suggest alternative plans; outlining the positive features and draw backs • evaluate appearance and function against original criteria 	<ul style="list-style-type: none"> • links scientific knowledge to design by using pulleys or gears • use IT, where appropriate, to add to the quality of the product 	<ul style="list-style-type: none"> • be both hygienic and safe in the kitchen • know how to prepare a meal by collecting the ingredients in the first place
Class 5	<ul style="list-style-type: none"> • use market research to inform plans and ideas. • follow and refine original plans • justify planning in a convincing way • show that culture and society is considered in plans and designs 	<ul style="list-style-type: none"> • know which tool to use for a specific practical task • know how to use any tool correctly and safely • know what each tool is used for • explain why a specific tool is best for a specific action 	<ul style="list-style-type: none"> • know how to test and evaluate designed products • explain how products should be stored and give reasons • evaluate product against clear criteria 	<ul style="list-style-type: none"> • use electrical systems correctly and accurately to enhance a given product • know which IT product would further enhance a specific product • use knowledge to improve a made product by strengthening, stiffening or reinforcing 	<ul style="list-style-type: none"> • know which season various foods are available for harvesting • explain how food ingredients should be stored and give reasons • work within a budget to create a meal • understand the difference between a savoury and sweet dish

Subject Implementation



Planning



The DT scheme also highlights key vocabulary that should be taught and used within their lessons.

	ingredients using measuring cups.	fabric paints and digital graphics.		<p>Join textiles using a greater variety of stitches, such as backstitch and whip stitch.</p> <p>Refine the finish using techniques to improve the appearance of their product, such as sanding, or a precise scissor cut after roughly cutting out a shape. Demonstrate resourcefulness when tackling practical problems.</p>
Key Vocabulary				
<p>Make • Build • Combine • Join • Shape • Tools</p>	<p>Fast • Slow • Faster • Slower • Up • Down • Turn • Wind up • Design • Draw • Sketch • Tools • Fix • Glue • Attach • Features • Brick • Wood • Stone • Cloth • Metal • Foam • Felt • Paper • Tissue • Newspaper • Cardboard • String • Wool • Clay • Scissors • Glue • Tape • Cut • Stick • Decorate</p>	<p>Materials • Mould • Liquid • Solid • Form • Shape • Adhesive • Lattice • Mass-produce • Hand-made • Packaging • Presentation • Machine made • Dimensions • Durable</p>		

Teachers are responsible for planning the teaching of their units and put weekly We Are Learning To (WALTs) onto their weekly plans:

	9.00	9.15	9.30	9.45	10.00	10.15	10.30	11.00	11.15	11.30	11.45	12.00	1.30	1.45	2.00	2.15	2.30	3.00	3.15	
Mon	Assembly	SUBJECT						SUBJECT					SUBJECT WALT:							
Tues		SUBJECT						SUBJECT					SUBJECT WALT:				SUBJECT WALT:			
Wed		SUBJECT						SUBJECT					SUBJECT WALT:						SUBJECT WALT:	
Thur		SUBJECT						SUBJECT					SUBJECT WALT:						SUBJECT WALT:	
Fri		SUBJECT						SUBJECT					SUBJECT WALT:				SUBJECT WALT:			

Examples of Work



Class 1



1 - Junk modelling task during lockdown.

Designing a LEGO toy for a specific audience.



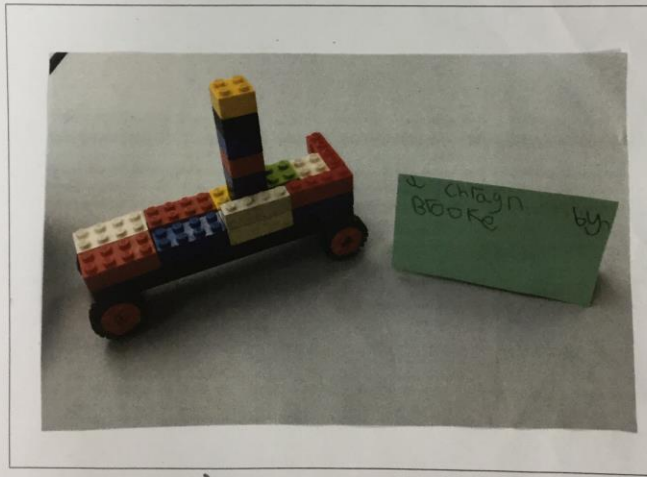


LO- Learn to design a LEGO toy for their chosen target audience.

Who is your target audience?

Children who like
trains
Chayngs

What LEGO product have you designed?



They
will like the
wheels because it moves

LO- Learn to design a LEGO toy for their chosen target audience.

Who is your target audience? 4

children who like
dinosaurs.

What LEGO product have you designed?



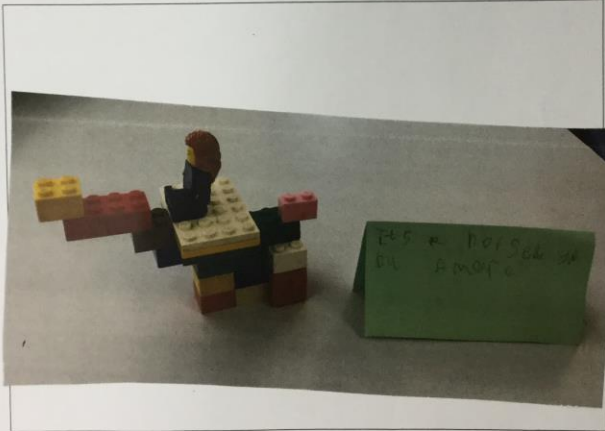
They will wear the
repeating pattern on the legs.

LO- Learn to design a LEGO toy for their chosen target audience.

Who is your target audience?

children who like horses

What LEGO product have you designed?



I think they will like the pink toy.


Learning to use tools with accuracy.




Learning to research, design, make, eat and evaluate their healthy sandwich.

LO- Learn to research sandwiches and design and create their own healthy sandwich.

Research
Find examples of different types of sandwiches that appeal to you.



Design
Design your own healthy sandwich.




What ingredients will you need?

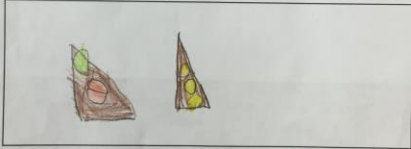
bread, kale, bread roll
strawberries, strawberries
apple, apple
ham

LO- Learn to research sandwiches and design and create their own healthy sandwich.

Research
Find examples of different types of sandwiches that appeal to you.

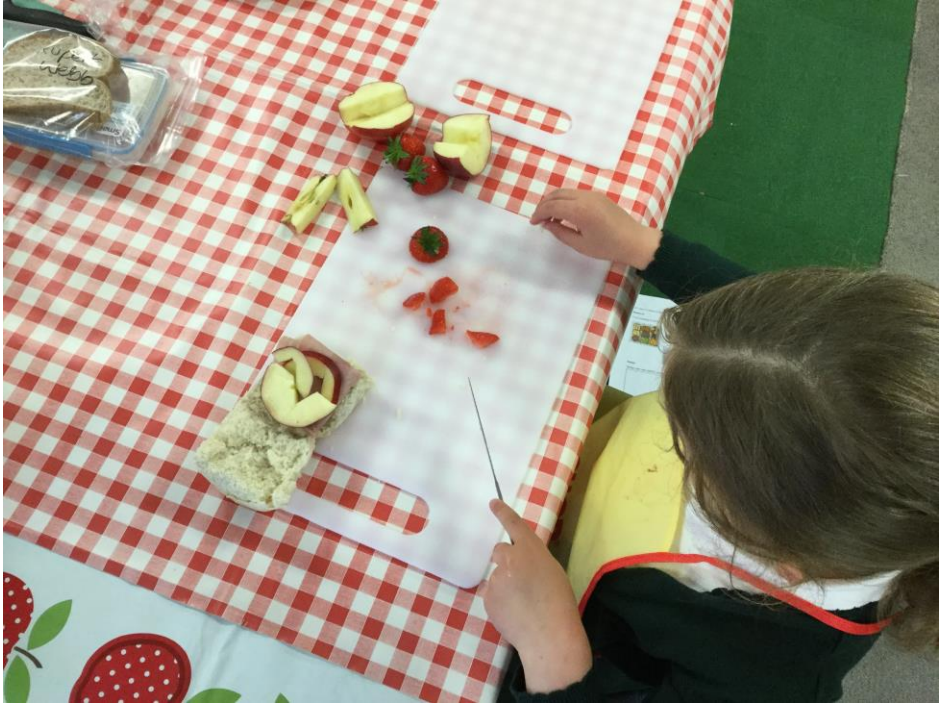


Design
Design your own healthy sandwich.



What ingredients will you need?

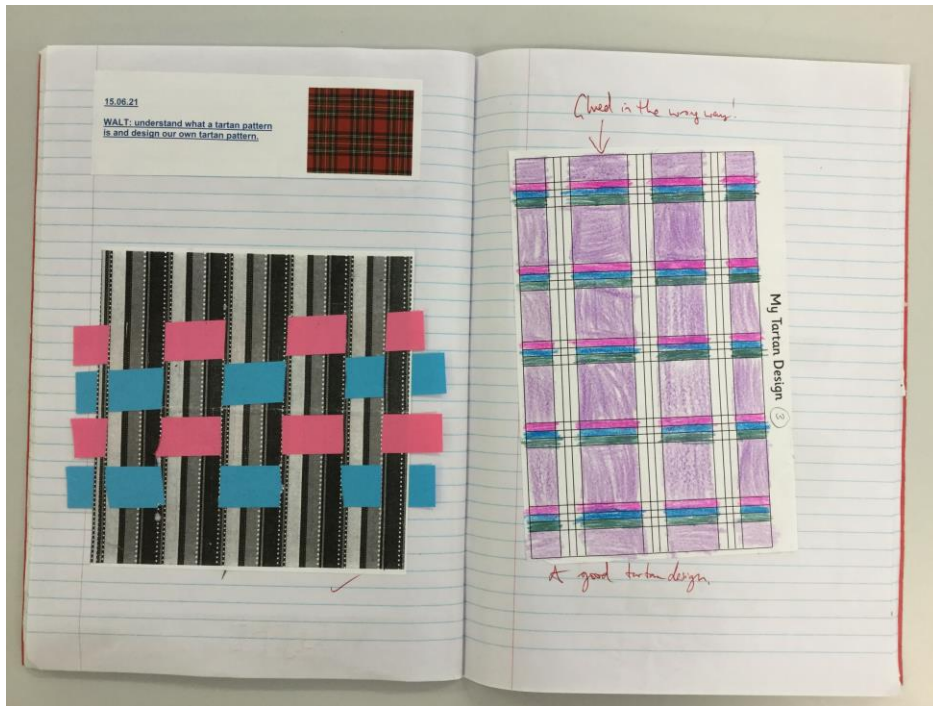
Tmarrow tomato
cyocumb cucumber
bnarhip banana
brunbred brown bread







Class 2

Designing tartan fabric.




21.06.21
WALT: understand that stitching is used to join clothing. We are learning to use a running stitch in our sewing.
 Today we started to practice how to do a running stitch pattern on Binca material. We watched a video showing us how to do this and then we practiced threading the needle and forming a running stitch in preparation for our tartan patterns next week.





22.06.21
WALT: explain where wool comes from.


Where does wool come from?
 Sheep at the farm.




Where does wool come from?
 The farmer shears the sheep.




Where does wool come from?
 The wool is washed and rinsed.




Where does wool come from?
 The wool is dyed to give it colour.



Where does wool come from?
 The wool is spun into thread and wound into balls.




Where does wool come from?
 The thread is knitted into clothes.




The shops sell the clothes to the people.
 Great ordering!

29.06.21
WALT: use sewing techniques that are used to create clothing. Apply our tartan design.




29.06.21
WALT: identify some of the differences between our lives and things that lived in the past from a range of sources of information. (1.10)


Greek children
 Babies and very young children were only a cloth wrapped in the summer. They were wrapped in a blanket in winter.




Tudor children
 One out of five hundred boys wore hosen until they were 6 or 7.



Victorian children
 Boys and girls wore white gloves as infants and babies graduating to white sailor clothes as they went outside for help.









Children today
 Shorts, hosen, trousers, casual wear, t-shirts, hoodies, jumpers, skirts, jeans, pants, socks and tights.



Looky, nice!

05.07.21
WALT: be able to describe similarities and differences between materials.

13.07.21
WALT: Identify some of the different ways in which clothes have changed throughout time.

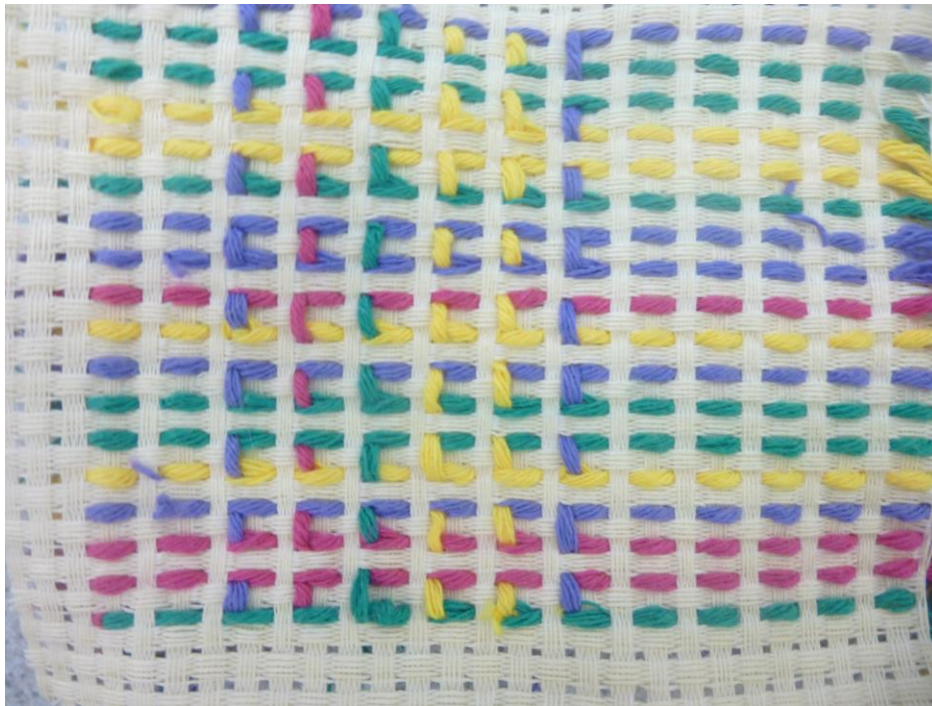
Material	What does it feel and look like? E.g. smooth, soft, shiny, silky, furry, hairy, rough, warm, see-through, holey, etc.?
	Rough and sticky.
	woolly, soft and gauzy.
	It is smooth and leathery. It looks like leather.
	It feels like wool and looks like a leather dress. It looks like a pretty silk.
	It feels like wool and looks like a leather dress.
	It feels like leather and looks like a silky stuff. It looks like a

Great investigating!

1) 2) 3) 4) 5) 6) 7) 8) 9) 10)

My favorite period in the world is the Ancient Egypt because I would like to be cool and look nice to school.

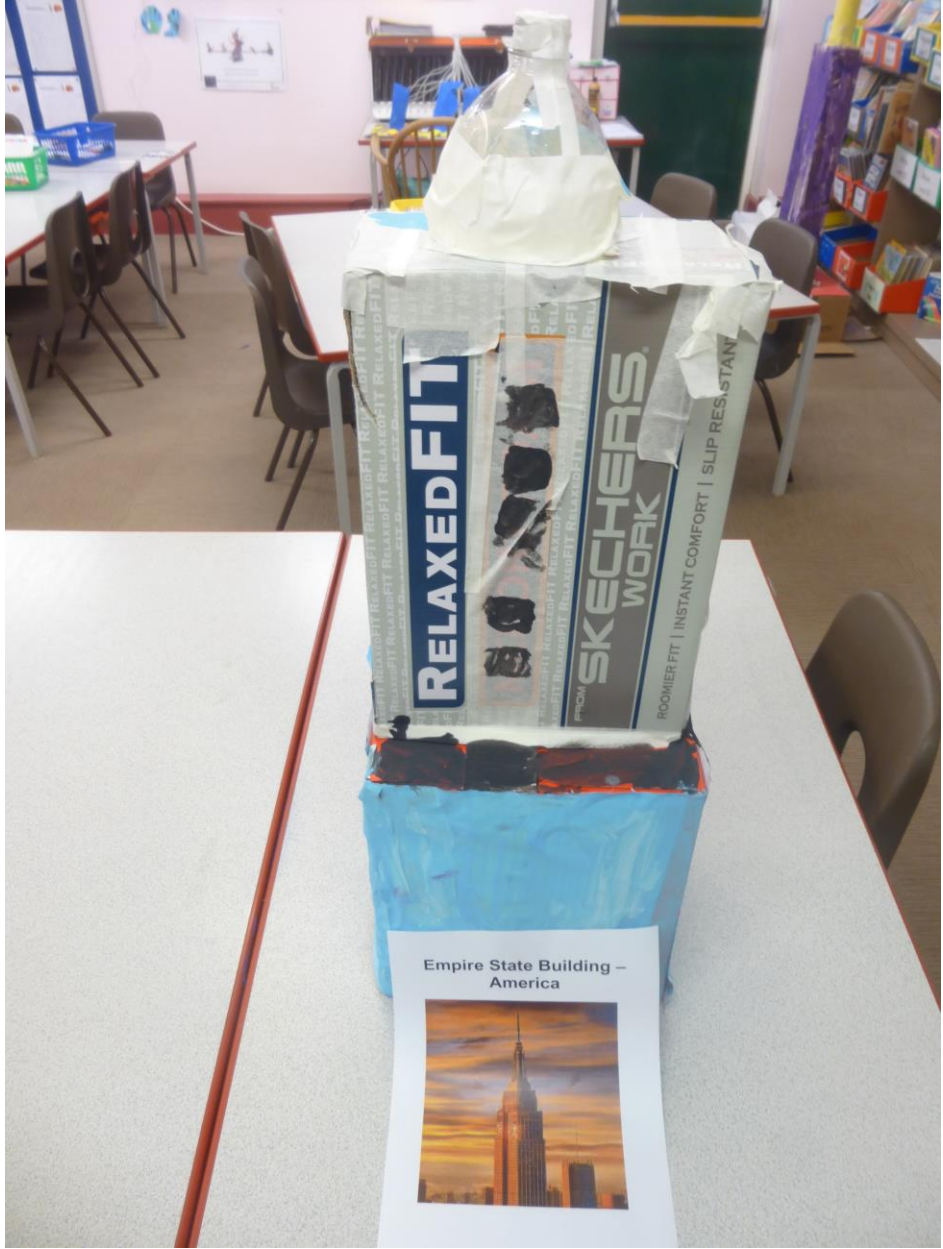
Well done!





Looking at buildings from around the world and using junk and joining and finishing techniques to create a replica.

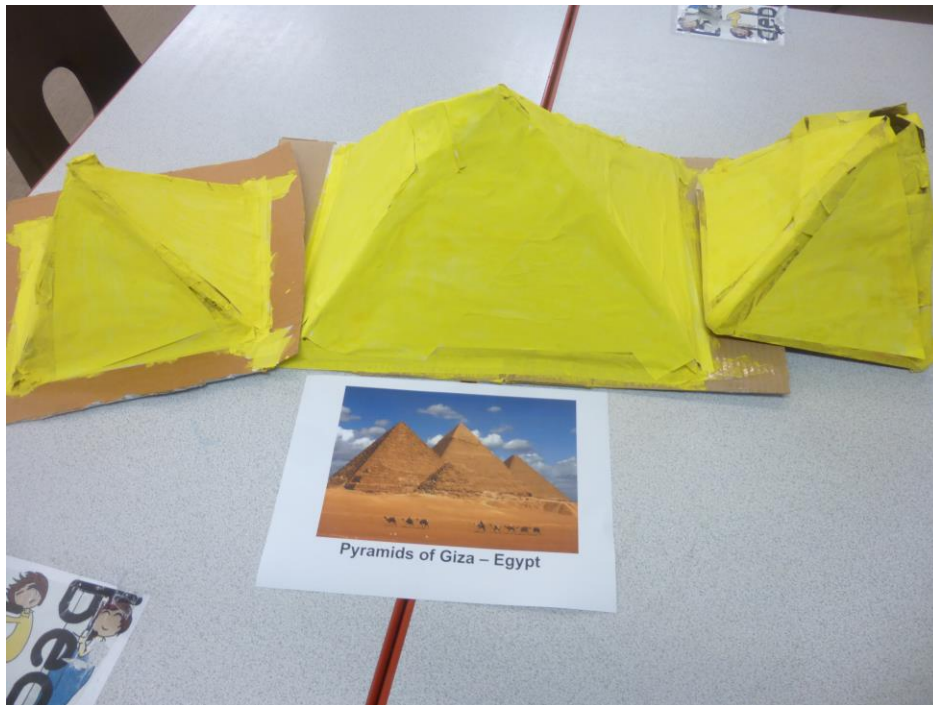




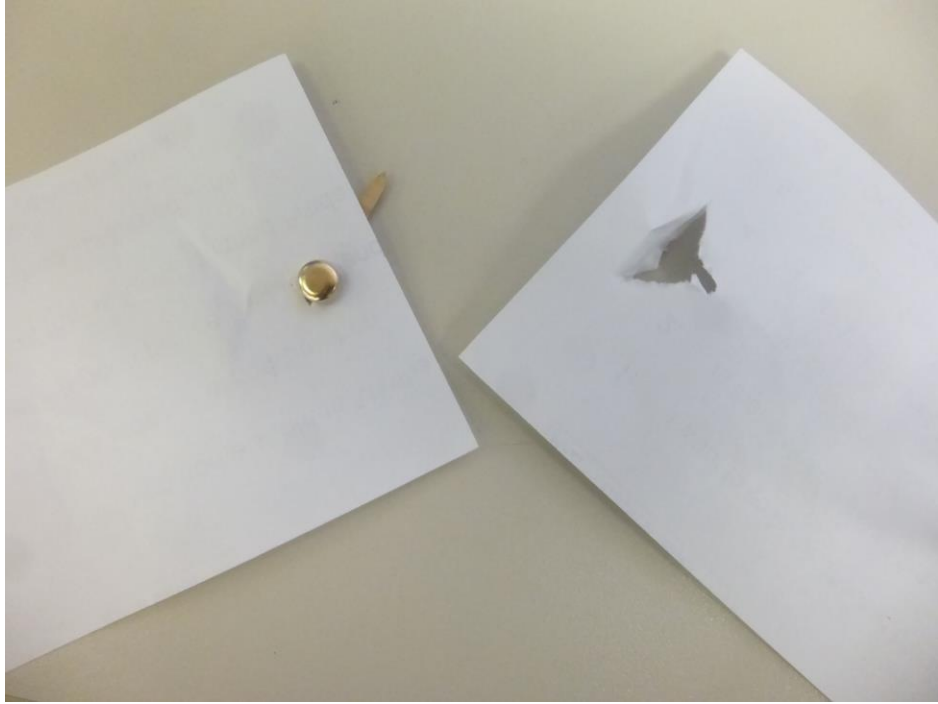
Empire State Building -
America







Developing skills. Exploring the best materials when making a model body, using picots for the joints, making holes in card and using split pins.



Learning to design a holiday souvenir.

13.06.22

WALT: plan our souvenirs and decide explain what purpose it will fulfil.



We are going to design, make an evaluate a fish souvenir.

Purpose and design criteria:

1. Small → fit in a bag
2. light
3. colourfull / bright
4. cheap

We are going to make them out of clay and use techniques in order to create (using templates) and join parts together.

My initial (first design) designs:

Design 1



Design 2



What materials I will need:

1. clay / clay knife
2. paint
3. white glue
4. water

A super design!

20.06.22

WALT: evaluate our work and suggest ways in which we can improve.



Here is a picture of my fish souvenir:	Did it follow the criteria?	Tick or Cross
	Small (fit in a bag)	✗
	Light	✓
	Colourful	✗
	Cheap to make	✓

What I thought went well:

I thought my painting went really well.

What I thought was tricky / difficult:

I thought making the fish was so difficult because I couldn't really shape and cut it out that was very difficult.

If I was to make it again, I would change / improve:

If I was to make it again, I would make my fish thicker and a light colour so Mr Green can see the light colour from his corner of his eye and when he drops it won't break.

A great evaluation.





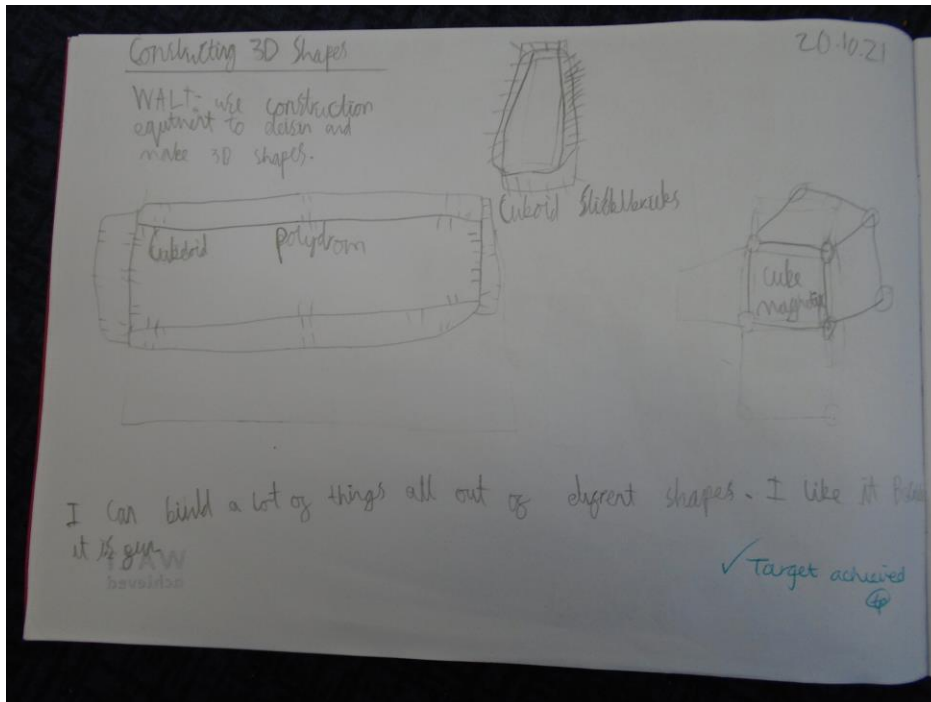
Class 3



2 - Learning to design and make wrapping paper that is bright and colourful.



Chocolate Project. Learning to design their own chocolate bar.



3 - Designing a flavoured chocolate bar with a name that fits the flavour.

My Chocolate Bar

9.9.21

Write: Describe your own glazed chocolate bar with a name that fits our class.



Gumdrops

Gum balls

Nuts

Sweeties

peppermint

soft caramel ornaments

white chocolate nibbles

chocolate

orange chocolate

evaporated sweetened condensed milk

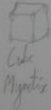


Constructing 3D Shapes

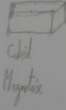
Write: Use construction equipment to design and make 3-D shapes.



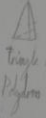
Triangular Prism
Pyramid



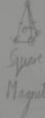
Cube
Pyramid



Rectangular Prism
Pyramid



Triangular Pyramid



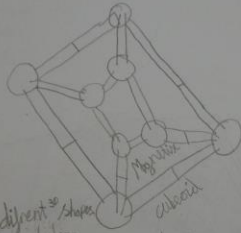
Square Pyramid
Pyramid

TJAW
Innovation

I can construct lots of shapes. I chose mostly pyramids because I enjoy it. I like it.

Constructing 3D Shapes

WALT: use construction equipment to design and make 3d shapes.



I can build different shapes
my favourite is polyhedron
because you can make lots of different shapes.
I like making pyramids because there are many kinds.



✓ target achieved ☺

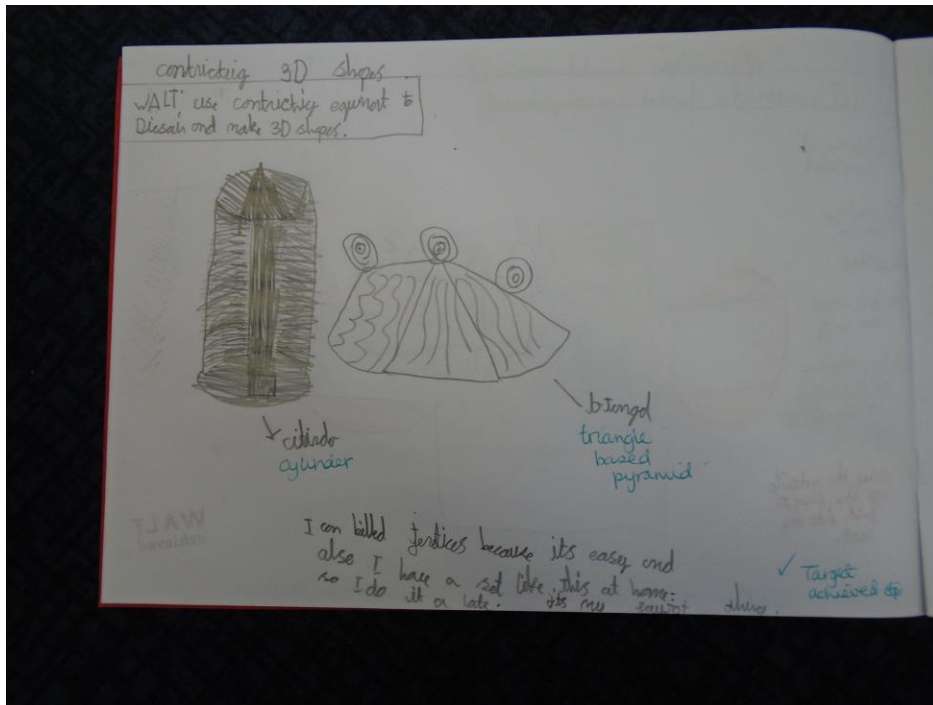
My Chocolate Bar 99.21

Walt dies (ghr our own flavoured
chocolate bar with a name that fits
our flavour



And when it's melted it's really like it





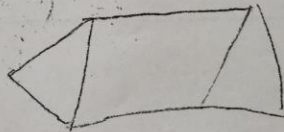
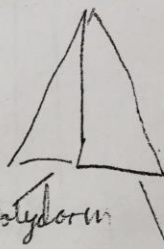
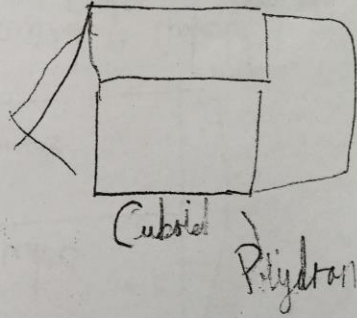
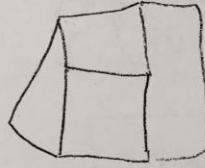
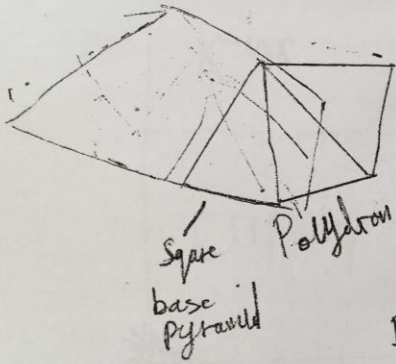
4 - Learning to use clay to create a model of their chocolate container design.

Designing, making and joining to make 3D shapes in preparation for making a chocolate box..

20/10/21

Constructing 3D shapes

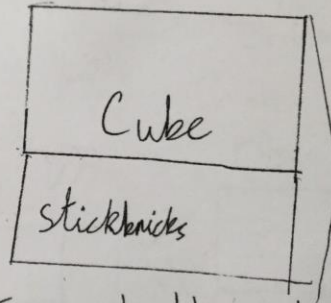
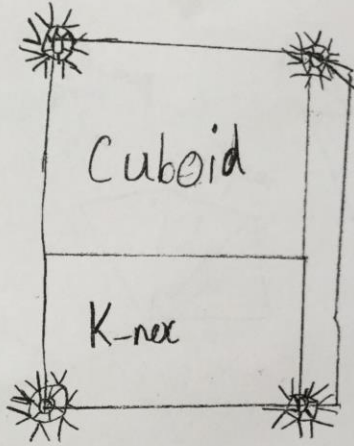
WALT: use construction equipment to design and make 3D shapes



I can build 3D shapes. It is very fun.

Target achieved ☺
I can build 3D shapes. I can build a triangular based pyramid polyhedron for all of them. I liked it because

Constructing 3D shapes 20.10.21
WALT: use constructing equipment
to design and make 3D shapes.

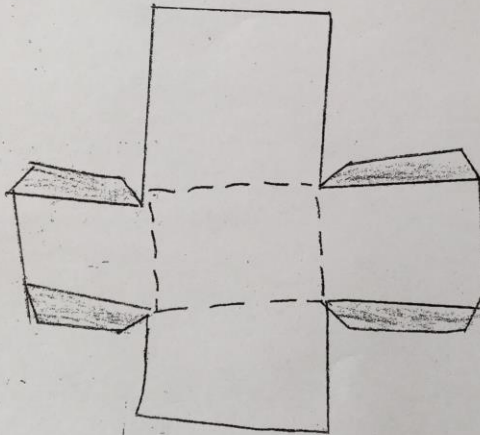


I can build a cuboid I got some
white K-nex and I also got some red sticks and
yellow ones I joined my white things to join the red
sticks together I like the K-nex because it is
fun.

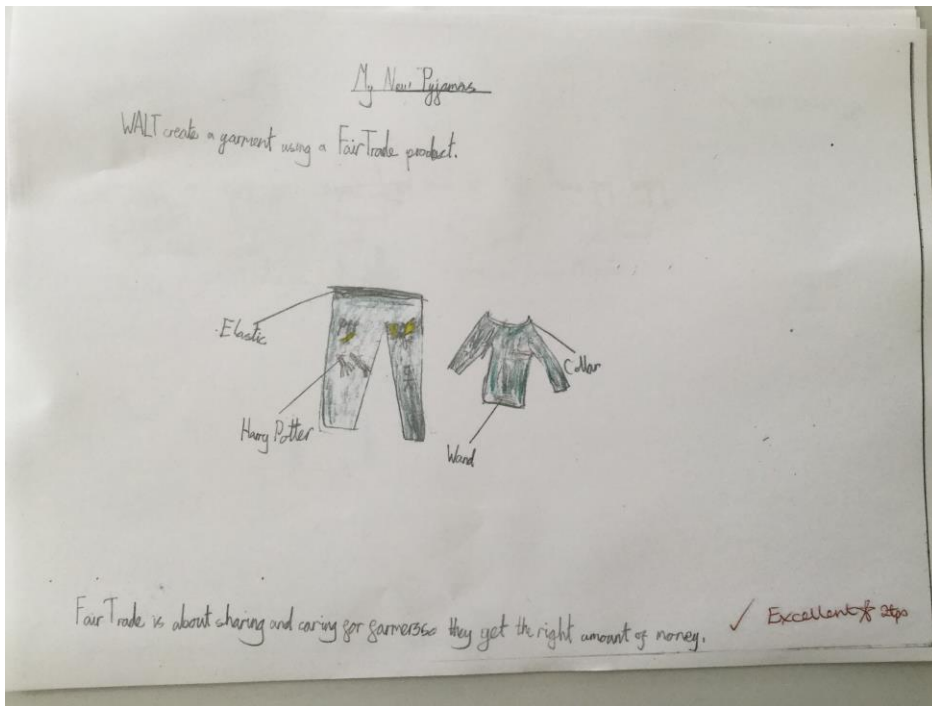
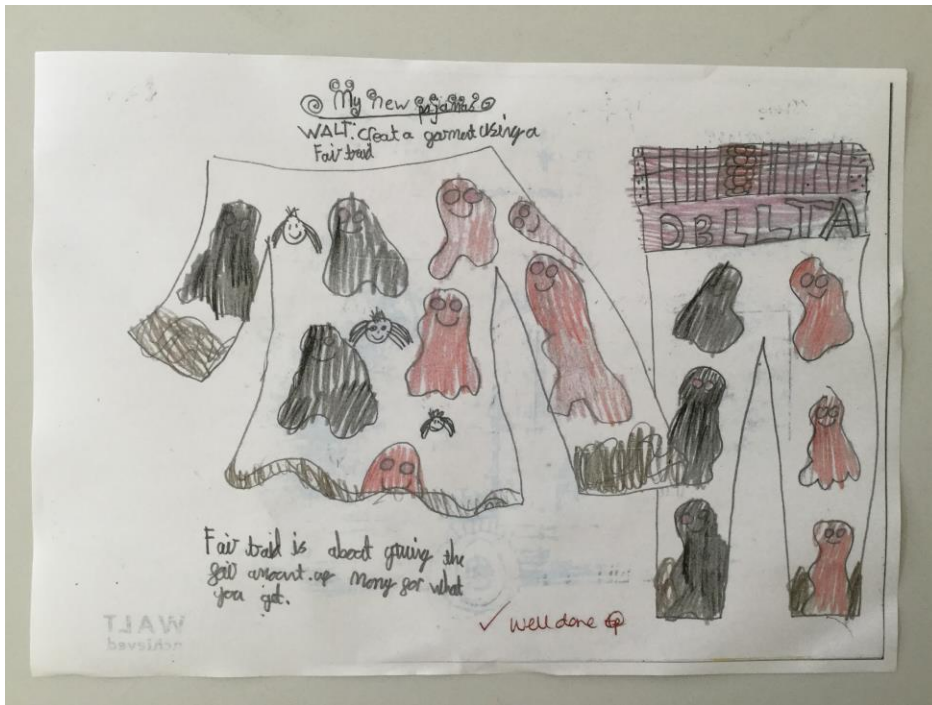
✓ Target achieved ⊕

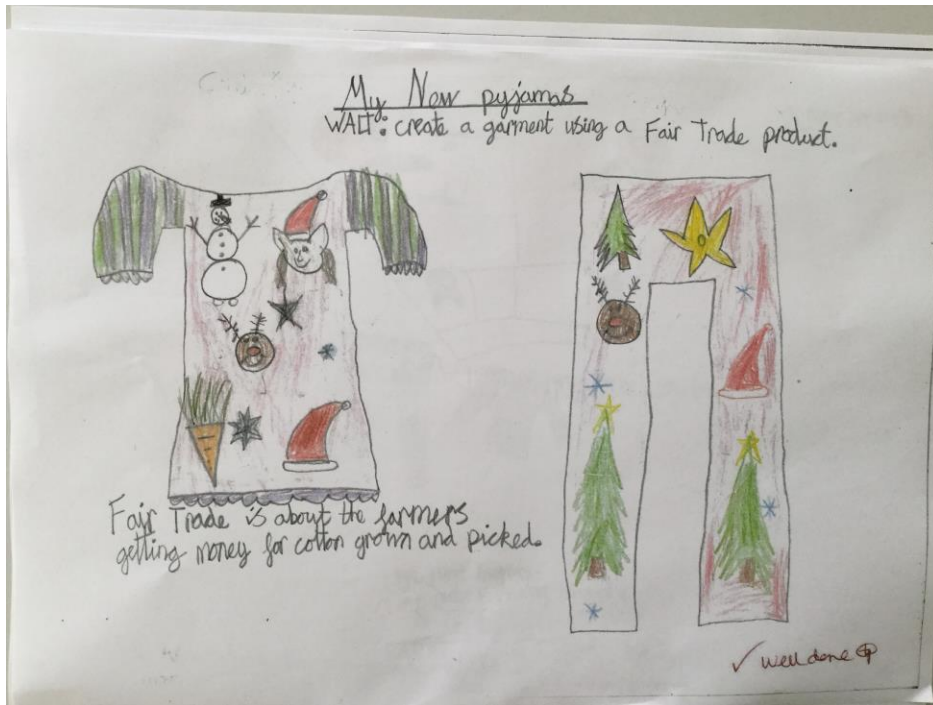
Making Chocolate Boxes 14/10/21
WALT: construct a Chocolate box using a net.

1. Draw round the template.
2. Cut out the net.
3. Fold the net.
4. Put your name on the base.
5. Decorate box so illustrations are standing up.
6. Glue the outside of the flaps to fold into the net.



WALT
achieved!





Designing a campsite.



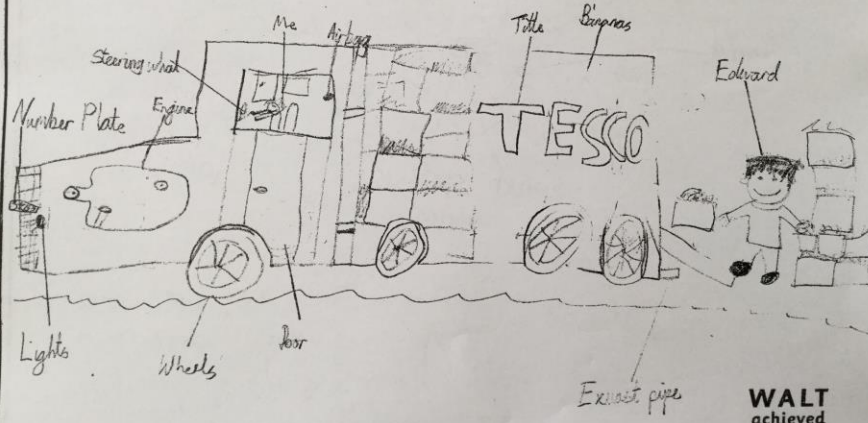


Using annotated designs to communicate their ideas.

6/1/22

One Mode of Transport

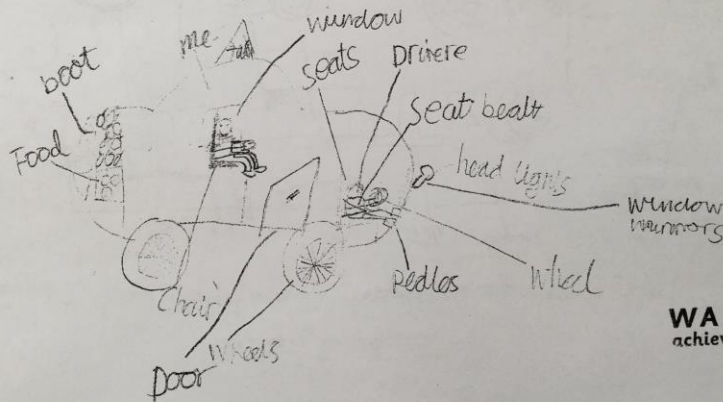
WALT: recognise different modes of transport are needed to travel to different places, carrying a variety of things.



WALT
achieved

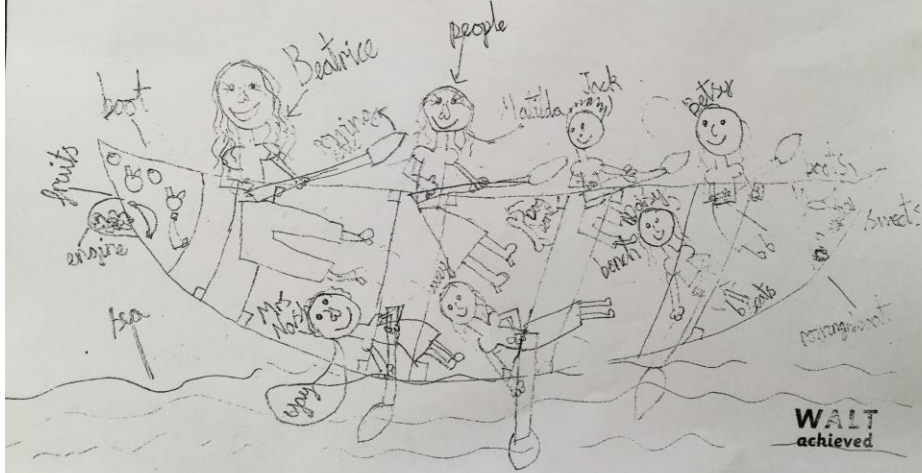
6/1/22 One Mode of Transport

WALT: recognise different modes of transport are needed to travel to different places, carrying a variety of things.

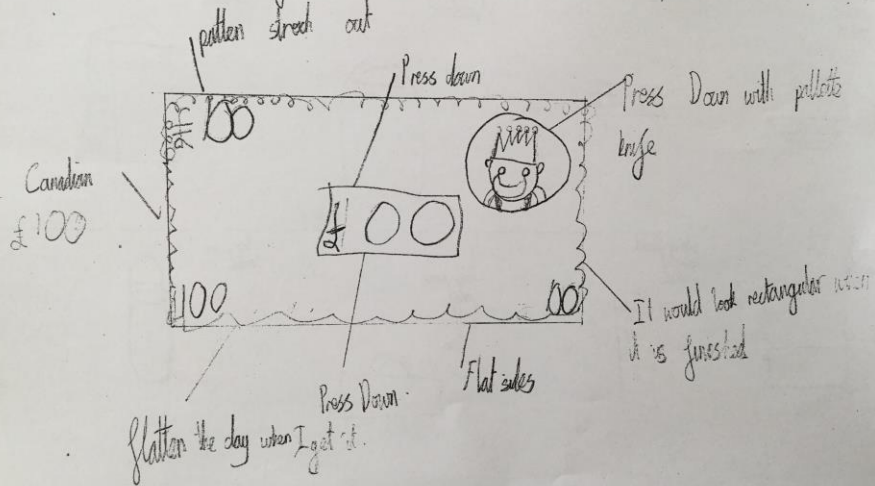


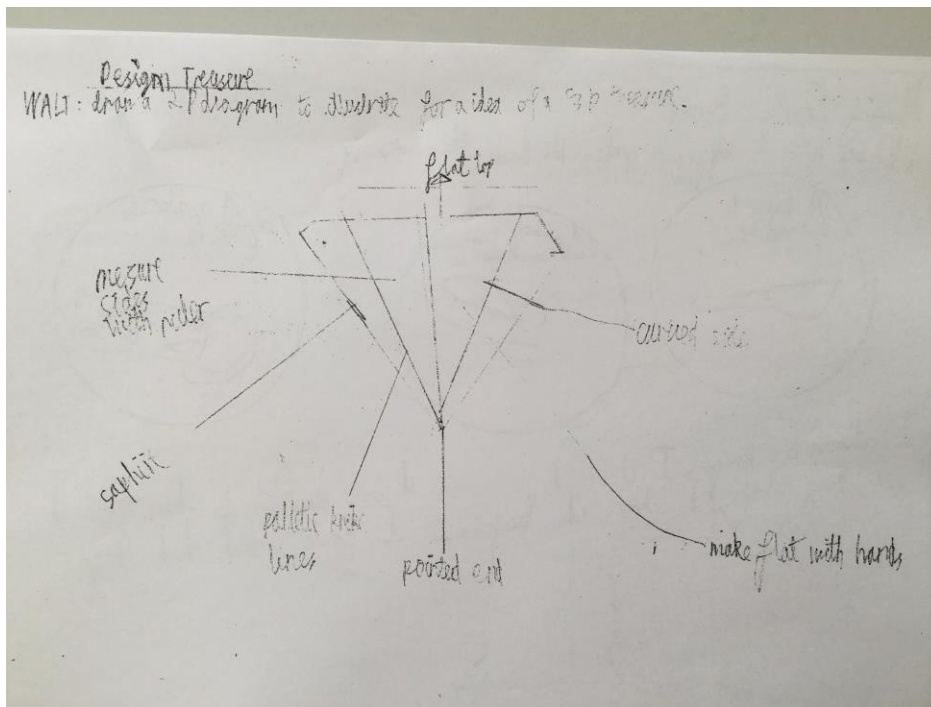
WALT
achieved

One Mode of Transport 6/1/22
 WALT: recognise different modes of transport are needed to travel to different places, carrying a variety of things.

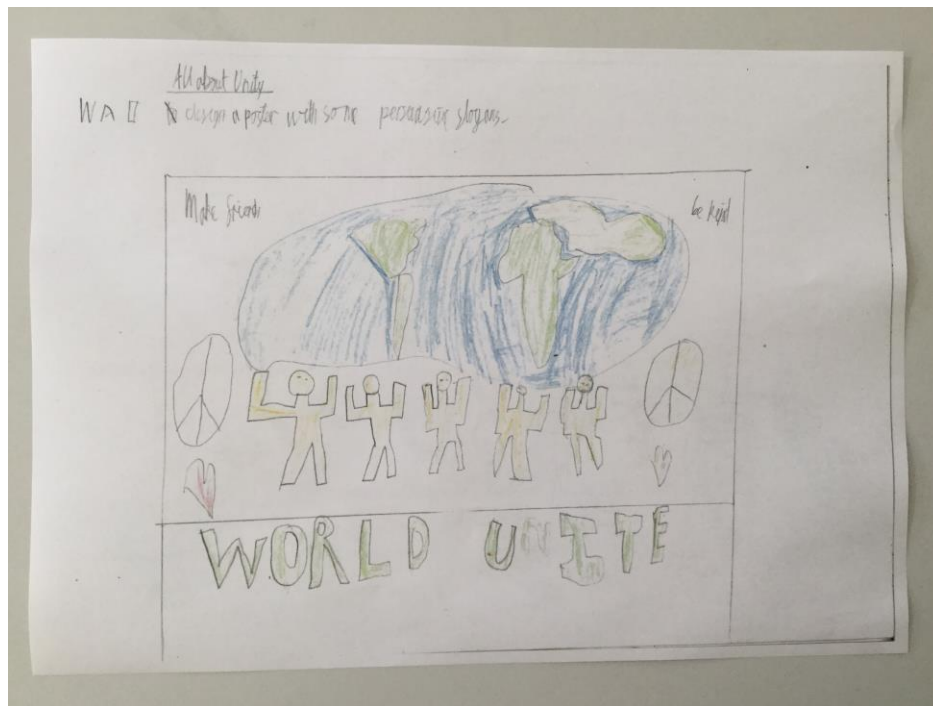


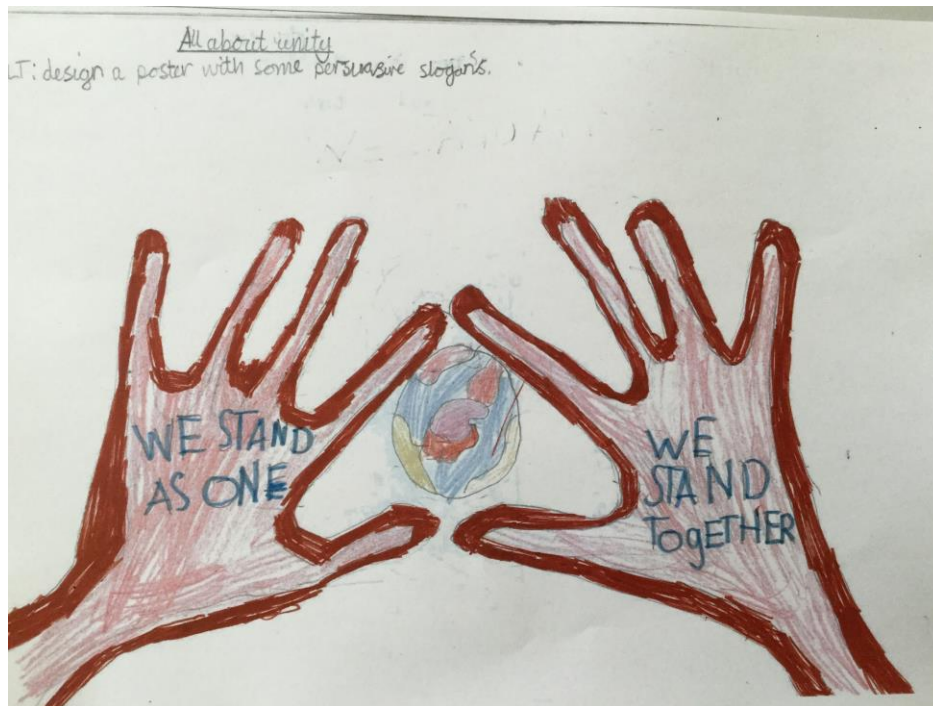
Learning Treasure
 ALT: Draw a 2D diagram to illustrate an idea for a 3D treasure





Design a poster with a persuasive slogan.





Designing an emoji.

Peoples Facial Expressions 11/12

VALT: read the mood of a person from their face, then create an emoji to match.



She is happy because she likes to be outside.



My emoji is yellow because I like yellow.



He is concentrating because he doesn't want to fall off.



Peoples Facial Expressions 11/11/22

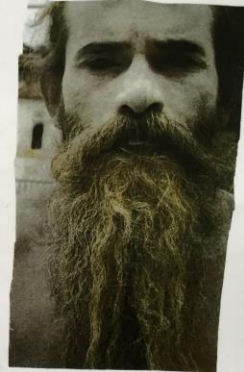
VALT: read the mood of a person from their face, then create an emoji to match.



This person is happy because they're having a photo taken.



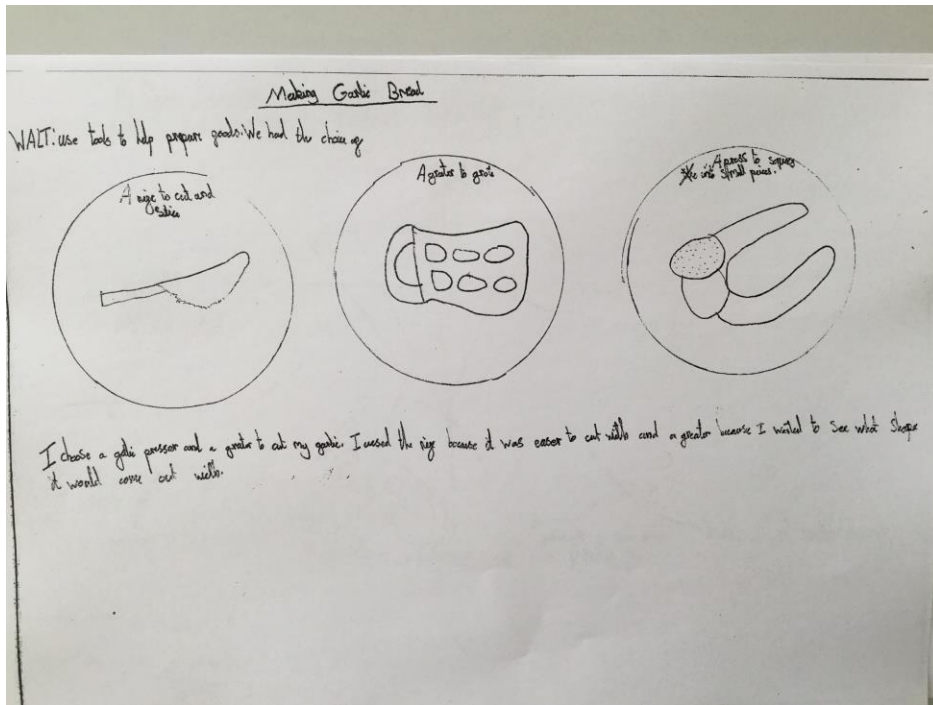
My emoji is smiling. I chose a marine park because I think it shares a sight of joy.



This person is frowning because he might be a grumpster.

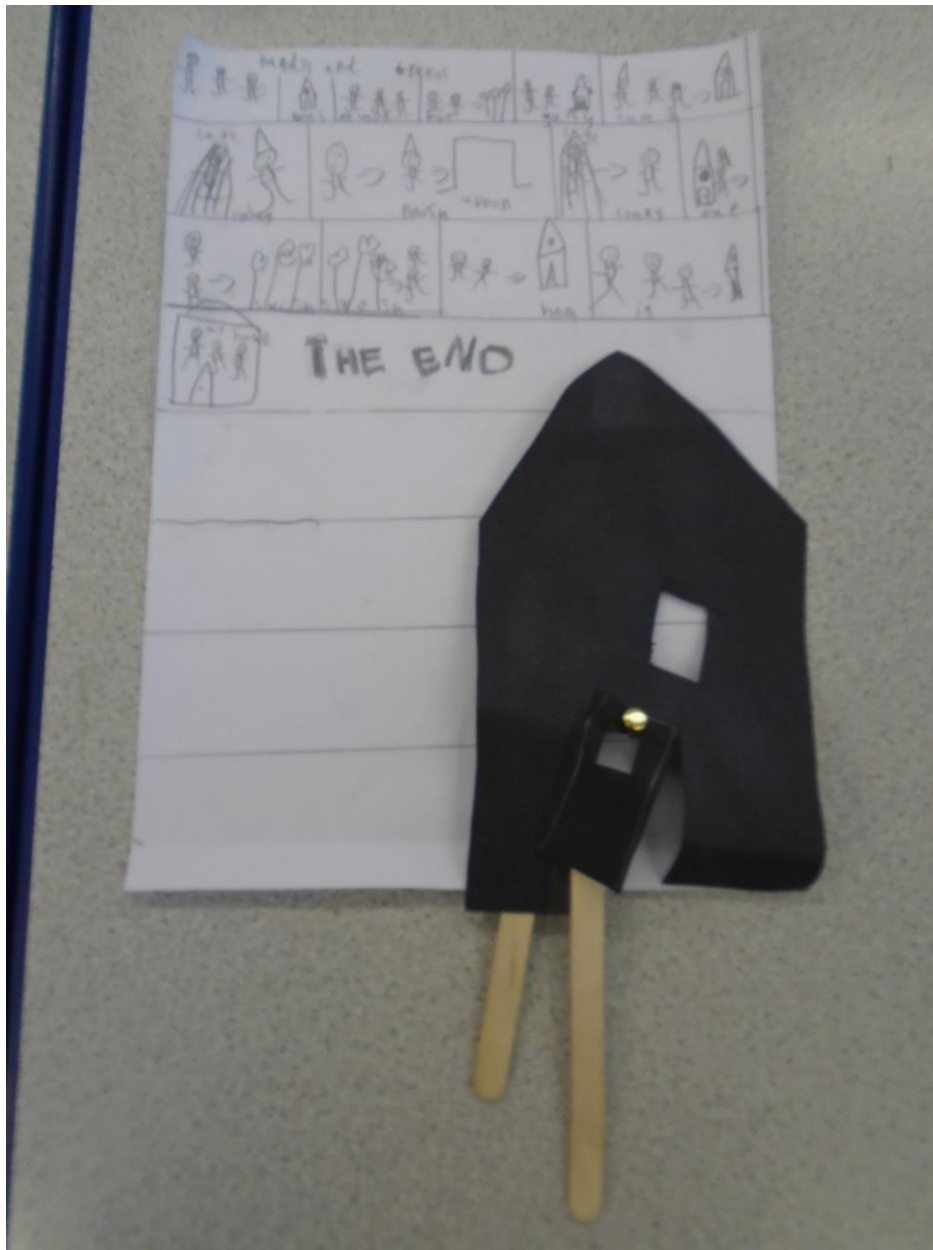


Learning that tools have a purpose when cooking.



5 - Garlic bread.





6 - Designing and making puppets to retell their favourite traditional story, using different joining techniques.

Class 4

Learning about different ways to decorate a piece of fabric. The children then designed and used these techniques to create and decorate a Christmas stocking.









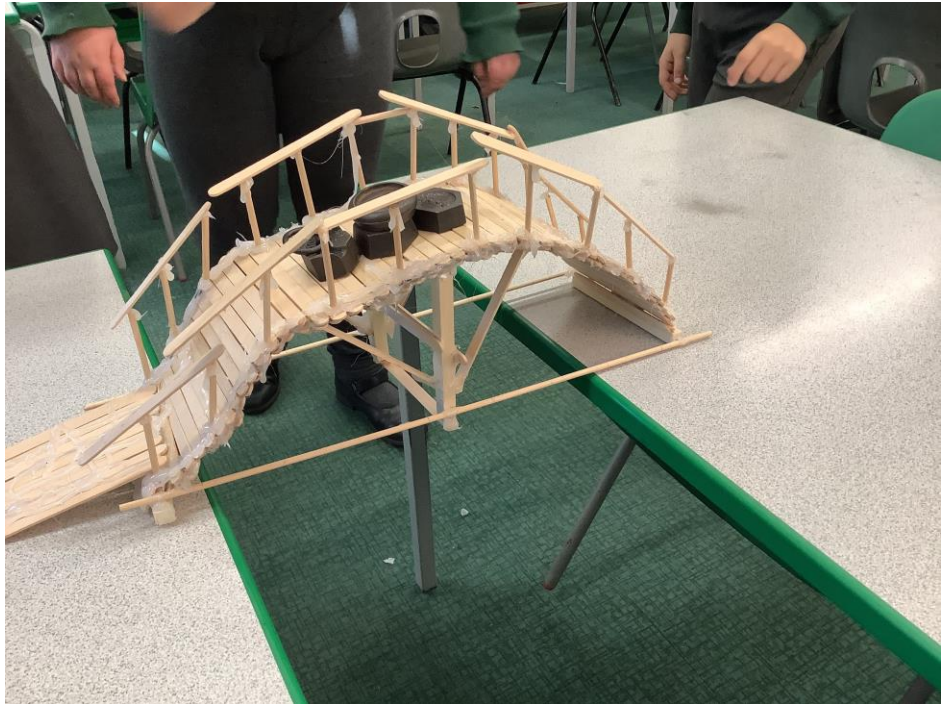
Class 5

Bridge Building











Looking at African fabric design and creating their own collaborative fabric piece, using relief printing techniques.



Extracurricular DT

Red Nose Day national competition 2022. Create a LEGO habitat for their red nose.

