



Design

and

Technology

Intent

To provide children with a real-life context for learning in our rapidly changing technological world and one which helps prepare them for living in a world in which sustainability and the environment must be given increasing priority.

Our intent is for children to be confident to ask questions and extend their knowledge, and to reflect and evaluate past and present products and technology.

Implementation

Our curriculum is structured specifically to inspire and foster creativity in designing, making and evaluating. It is combined with the progressive acquisition of knowledge, skills and understanding in order to design for a defined purpose and outcome.

By using a range of high-quality resources and individual 1:1 iPads, children are able to plan and research effectively, as part of the design and evaluate process.

Impact

By using a range of tools, resources and materials (including I.C.T), pupils create effective constructions and are proud of their creations. Pupil's skills are transferable across the curriculum and they will have clear enjoyments and confidence in D.T.

We encourage children to work both independently and in teams, to consider differing needs and to be resourceful and enterprising; building resilience in their problem solving, all of which helps to equip children for life beyond our primary school.

Design and Technology
Overview of Units: Key Stage 1

SWC

KS1			
	Autumn	Spring	Summer
Cycle A	Fruit kebabs	Junk modelling: Baby Bear's Chair	(Y2) Fabric weaving. Create a class fabric weaving display which symbolises the school values or create a fabric bowl. (Y1) Paper weaving. Create a card that incorporates paper weaving.
Cycle B	Christmas cookies	Pop up cards (Blue Planet)	Sock animals

National Curriculum:

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

Design

- Design purposeful, functional, appealing products for themselves and other users based on design criteria.
- Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.

Make

- Select from and use a range of tools and equipment to perform practical tasks [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.


Evaluate

- Explore and evaluate a range of existing products.
- Evaluate their ideas and products against design criteria.

Technical knowledge

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

Cycle A- Autumn- Fruit kebabs

	Context	Subject- specific knowledge	Subject specific skills development
D.T KS1	<p>Food technology- Fruit kebabs</p> <p>Design</p> <p>Make</p> <p>Evaluate</p> <p>Vocabulary:</p> <ul style="list-style-type: none"> • Chop • Prepare • Cut • Peel • Texture • Taste • Healthy • Fresh 	<ul style="list-style-type: none"> • To design purposeful, functional, appealing products for themselves and other users based on a design criteria. • To generate, develop, model and communicate their ideas through talking, drawing, and where appropriate, information and communication technology. • To select from and use a wide range of materials, componenets, tools and equipment including knives, spoons, mixing bowls, grater, textiles (oven gloves and tea towel, cleaning products) and ingredients to perform practical tasks. • To explore and evaluate a range of existing products. • To evaluate their ideas and products against design criteria. <div style="text-align: center;">  </div>	<ul style="list-style-type: none"> • To name tools and know how to use them safely. • To use good food handling and food hygiene. • To discuss with others how fruit and vegetables keep people healthy. • To understand that everyone should eat at least five portions of fruit and vegetables every day, • To understand where food comes from. • Y1- To understand the food wheel and the importance of a balanced diet. • Y2- To understand the food wheel and why foods should be eaten in greater/smaller quantities. To identify ingredients used in kebabs, where they come from and what they tell us about the climate. • Cut, chop and mix with increasing skill. • Show safety and awareness when cooking. • To use a balance to weight things. • To follow verbal instructions. • To be able to cut food safely. • To evaluate the nutritional value of the dish.

Key expected outcomes

All: Pupils will prepare a kebab.


Pupils will be able to evaluate the dish and discuss the nutritional value of the dish.

Pupils will create a recipe and method and be able to recreate the dish at home.

Useful websites/links:

- https://www.guildensutton.cheshire.sch.uk/serve_file/8528711
- <https://www.manorprimary.com/usr/docs/2017/5/Design%20&%20Technology%20Summer%20Y1-Y6.pdf>

Cycle A: Spring- Junk modelling (Baby bear's chair)

	Context	Subject- specific knowledge	Subject specific skills development
D.T KS1	<p>Junk modelling- Baby bear's chair</p> <p>Design</p> <p>Make</p> <p>Evaluate</p> <p>Vocabulary:</p> <ul style="list-style-type: none"> • Structure • Cut • Fold • Join • Fix • Wall • Weak • Thinner • Thicker • Stable • Strong 	<ul style="list-style-type: none"> • To design purposeful, functional, appealing products for themselves and other users based on a design criteria. • To generate, develop, model and communicate their ideas through talking, drawing, templates and mock ups. • To select from and use a range of tools and equipment to perform practical tasks (cutting, shaping, joining). • Select from and use a wide range of materials and componenets, including construction materials and textiles. • To explore and evaluate a range of existing products. • To evaluate their ideas and products against design criteria. • To build structures, exploring how they can be made stronger, stiffer and more stable. • To explore and use mechanisms, such as levers, sliders, wheels and axels. 	<ul style="list-style-type: none"> • Y2- Select from a range of materials, giving reasons for choices in relation to design specification, considering suitability and properties of the materials. • Y1- Select from a range of materials, evaluating the properties and suitability of some materials. • To explain to someone else how I want to make my product and why. • To use drawings to describe my intentions and add notes to explain. • To be able to describe how something works. • To be able to make a product that is strong and stable. • Model ideas with kits/ reclaimed materials. • Use a range of materials to create models with wheels and axels, e.g., glue, tape, dowel and cotton reels. Attach wheels to a chassis using an axle. • To evaluate my product against my intentions and success criteria. • I can evaluate how my product could be made stronger/stiffer/more stable.


Key expected outcomes

All: Make a strong structure (chair) using junk modelling to hold a teddy bear.

Useful websites/links:

- <https://teachers.thenational.academy/lessons/baby-bears-chair-crrker>
Using the tale of Goldilocks and the Three Bears as inspiration, children help Baby Bear by making him a brand-new chair. When designing the chair, they consider his needs and what he likes and explore ways of building it so that it is strong.

Cycle A: Summer- Paper/fabric weaving

	Context	Subject- specific knowledge	Subject specific skills development
D.T KS1	<p>Paper/fabric weaving (Potential beach school links)</p> <p>Design</p> <p>Make</p> <p>Evaluate</p> <p>Vocabulary:</p> <ul style="list-style-type: none"> • Material • Thread • Weaving • Tight • Loose • Texture • Smooth • Rough • Binding 	<ul style="list-style-type: none"> • To design purposeful, functional, appealing products for themselves and other users based on a design criteria. • To generate, develop, model and communicate their ideas through talking, drawing, templates and mock ups. • To select from and use a range of tools and equipment to perform practical tasks (cutting, shaping, joining). • To explore and evaluate a range of existing products. • To evaluate their ideas and products against design criteria. • To select from a wide range of materials and components such as textiles. 	<ul style="list-style-type: none"> • To explain to someone else how I want to make my product and why- why have you chosen those colours? • Test out different materials and consider different factors to their success. • To use drawings to describe my intentions and add notes to explain. • Discuss school links to the beach and how the design could link to beach themed products. • To use my knowledge of paper weaving and transfer this to fabric weaving. Will the process be different? • Evaluate different textiles. • Show problem solving skills and understanding of need to continually evaluate.


Key expected outcomes

Y2- Create a class fabric weaving display which symbolises the school values (pupils to add their own pattern to the display) or create a fabric bowl/item.
Y1- Create a card that incorporates paper weaving.

Useful websites/links:

[https://www.thorpehesleyprimary.rotherham.sch.uk/documents/%5B740943%5DKS1 Art Planning Summer Term Pakistan - weaving.pdf](https://www.thorpehesleyprimary.rotherham.sch.uk/documents/%5B740943%5DKS1%20Art%20Planning%20Summer%20Term%20Pakistan%20-%20weaving.pdf)

Cycle B: Autumn- Christmas cookies

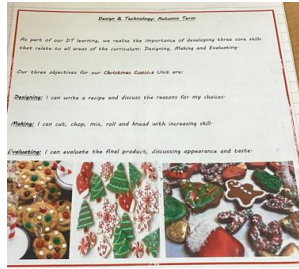
	Context	Subject- specific knowledge	Subject specific skills development
D.T KS1	<p>Food technology- Christmas cookies</p> <p>Design</p> <p>Make</p> <p>Evaluate</p> <p>Vocabulary:</p> <ul style="list-style-type: none"> • Mix • Whisk • Spoon • Bake • Beat • Roll • Decorate 	<ul style="list-style-type: none"> • To design purposeful, functional, appealing products for themselves and other users based on a design criteria. • To generate, develop, model and communicate their ideas through talking, drawing, templates and, where appropriate, information and communication technology. • To select from and use a wide range of materials, componenets, tools and equipment including knives, baking sheet, oven, grater, textiles (oven gloves and tea towel), cleaning products and ingredients to perform practical tasks. • To explore and evaluate a range of existing products. • To evaluate their ideas and products against design criteria. 	<ul style="list-style-type: none"> • To be able to follow a recipe • Discuss how I want to make a product and why. • To describe how something is made- to write a recipe • Cut, chop, mix, roll and knead with increasing skill. • To be able to cut food safely • To name tools and know how to use them safely. • To use good food handling and food hygiene. • To use a balance to weigh ingredients. • Y1- To evaluate a range of existing Christmas cookies. • Y2- To evaluate a range of existing Christmas cookies and to understand the food wheel and why foods should be eaten in greater/smaller quantities.
<p><u>Key expected outcomes</u> All: Design, create and evaluate Christmas cookies.</p>			
<p><u>Useful websites/links:</u></p> <ul style="list-style-type: none"> • https://www.bbcgoodfood.com/howto/guide/christmas-cookies-kids 			

Example of unit planning:

Lesson 1- Evaluate a range of existing products.

Focus on:

- Whole class research on different styles of Christmas cookies.
- Focus on 3 different types of Christmas cookie.
- Explain that Christmas cookies can be different depending on different countries traditions.
- Pupils to sketch one of the Christmas cookies and evaluate what they like/ dislike about them
- Understand the food wheel and why foods should be eaten in certain quantities.

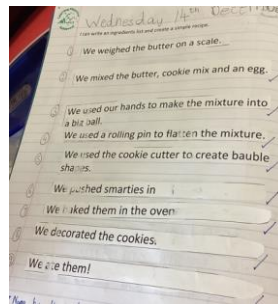
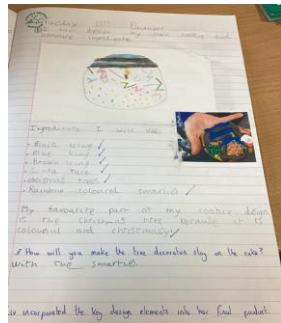


Task- Pupils to stick in their design brief sheet. Then, look at different pictures of Christmas cookies. Class discussion how Christmas cookies will be different in different countries.

Lesson 2- Design my Christmas cookie.

Focus on:

- Shape of the biscuit
- Ingredients
- Decoration
- Discuss how I want to make a product and why.
- Writing a recipe and method



Task- Pupils to recap Christmas cookie pictures from previous lesson.

Pupils to complete the design sheet, creating their own Christmas cookie design (**NOT copying the pictures**). Pupils to label their designs, showing detail (e.g. sprinkles, star shape, ginger flavour). Order to the method.

Lesson 3- Understand health and safety for making my Christmas cookie.

Focus on:

- Equipment we will need to use and how to handle them
- Personal hygiene
- Watch the video on food safety.



Task- Watch the food safety video then write down notes onto the whiteboard. Model creating a simple food safety poster, linking to creating Christmas cookies.

Pupils to create a simple poster- give pupils a title to use and bullet point key words to use.

Lesson 4- Create my Christmas cookie.

Focus on:

- Cut, chop, mix, roll and knead with increasing skill.
- To be able to cut food safely.
- To name tools and show how to use them safely.
- To use good food handling and food hygiene.

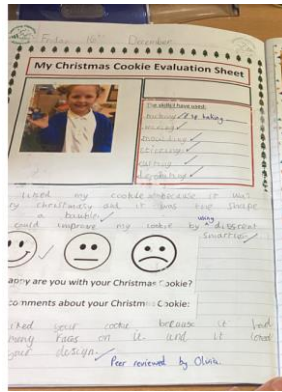
Use a balance to weight ingredients.



Task- Pupils to follow their plan from the previous lesson. Teacher to take pictures on the iPad as the pupils are creating their edible houses. Keep houses at school overnight, to evaluate the next day.


Lesson 5- Evaluate my edible house.

- Evaluate the final product against their design.
- Consider the strengths of their creation.
- What would they change/ do differently?





Task- Complete evaluation sheet.

Cycle B- Spring- Pop up cards (link to Blue planet)

	Context	Subject- specific knowledge	Subject specific skills development
<p>D.T KS1</p>	<p>Pop up cards- Blue planet</p> <p>Design</p> <p>Make</p> <p>Evaluate</p> <p>Vocabulary:</p> <ul style="list-style-type: none"> • Folding • Drawing • Cutting • Line up • Glue • Stick • 3D • Interactive 	<ul style="list-style-type: none"> • To design purposeful, functional, appealing products for themselves and other users based on a design criteria. • To generate, develop, model and communicate their ideas through talking, drawing, templates and mock ups. • To select from a wide range of materials. • To build structures, exploring how they can be made stronger, stiffer and more stable. • To explore and evaluate a range of existing products. • To evaluate their ideas and products against design criteria. <div style="text-align: center;">  </div>	<ul style="list-style-type: none"> • To describe how something works. • Understand that different materials are chosen for different reasons. • Test out different materials and consider different factors to their success- investigate strengthening sheet materials. • Discuss how I want to make a product and why. • Measure materials to use in a model- use a template. • To cut, shape and join using a range of tools. • Techniques- Fold, tear, cut, curl and roll paper. Cut along lines straight and curved. Use paper fasteners, split pins, glue and tape to join. Joining temporary, fixed and moving materials. • Select materials from a limited range that will meet the design criteria and explain why I have chosen specific materials. • Show problem solving skills and understand of need to continually evaluate. • Evaluate work against a success criteria. • Y2- Explore how card can be made stiffer/ more rigid.
<p><u>Key expected outcomes</u> All: Create a pop-up card and evaluate it.</p>			
<p><u>Useful websites/links:</u></p> <ul style="list-style-type: none"> • https://dandtfordandt.files.wordpress.com/2013/01/popupbooky4.pdf • https://www.youtube.com/watch?v=hJ0_a3jYRII 			

Cycle B- Summer- Sock animals

	Context	Subject- specific knowledge	Subject specific skills development
D.T KS1	<p>Sock animals</p> <p>Design</p> <p>Make</p> <p>Evaluate</p> <p>Vocabulary:</p> <ul style="list-style-type: none"> • Cutting • Stitching • Sewing • Turning • Position • Stuff • Back stitch • Running stitch 	<ul style="list-style-type: none"> • To design purposeful, functional, appealing products for themselves and other users based on a design criteria. • To generate, develop, model and communicate their ideas through talking, drawing, templates and mock ups. • To select from a wide range of materials. • To explore and evaluate a range of existing products. <div style="display: flex; justify-content: space-around; align-items: center;">   </div>	<ul style="list-style-type: none"> • Use my own knowledge and ideas to make something. • Understand that different materials are chosen for different reasons. • Test out different materials and consider different factors to their success. • Explain why I have chosen specific materials. • Describe what I will do next- first, next, last. • Measure materials to use in a puppet. • To select from and use a range of tools and equipment's to perform practical tasks (cutting, shaping, joining). • Y1- Use a basic running stitch. • Y2- Use a range of stiches to securely attach accessories to sock puppet. • Show problem solving skills and understand of need to continually evaluate- discuss work as it progresses and improve as it goes along. • Evaluate work against a success criteria.

Key expected outcomes
Design, make and evaluate a sock animal.

Useful websites/links:

- <https://www.twinkl.co.uk/blog/sewing-projects-to-make-with-children-sock-teddies>

Design and Technology

Overview of Units: KS2

KS2			
	Autumn	Spring	Summer
Y3/4 Cycle A	Food- Bread (Bread from various countries)	Moving books (Natural disasters)	Cams- links to forces in science
Y3/4 Cycle B	Food- Midday meals (sandwich forms from various countries)	Moving cars	Stuffed toys
Y5	Yule logs (to be done in Autumn 2)	Hand puppets	Recycling/repurposing (possibly using litter from the beach)
Y6	Edible houses (to be done in Autumn 2)	Electricity- moving fairground rides	Memory keepsake (possible link to WW2)

Design and Technology: National Curriculum

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

Design:

- Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at individuals or groups.
- Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.

Make:

- Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing].
- Accurately select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.

Evaluate:

- 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

Technical knowledge:

- apply their understanding of how to strengthen, stiffen and reinforce structures that are more complex
- 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.


Cooking

As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.

Key stage 2

- 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.

Y3/4 Cycle A- Autumn- Bread making

	Context	Subject- specific knowledge	Subject specific skills development
D.T Y3/4	<p>Food technology- Bread making</p> <p>Design</p> <p>Make</p> <p>Evaluate</p> <p>Technical knowledge</p> <p>Vocabulary:</p> <ul style="list-style-type: none"> • Ingredients • Yeast • Knead • Dough • Rise • Measure 	<ul style="list-style-type: none"> • Awareness of food available- seasonality, production methods. • Developing knowledge and ability to use kitchen equipment independently. • Understanding of sweet and savoury. • Secure understanding of instructions and how to follow. • Understand how bread forms vary depending on the country. 	<ul style="list-style-type: none"> • Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups. • To follow a step-by-step plan, choosing the right equipment and materials. • To select the most appropriate tools and techniques for a given task. • Understand how key events and individuals in design and technology have helped shape the world. • Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. • Describe how different food and ingredients come together. • Prepare and cook a variety of predominantly savoury dishes, using a range of cooking techniques.

Key expected outcomes



Pupils will design, make and evaluate bread.

Pupils should show understanding of nutrition, cooking methods and availability of ingredients.

Useful websites/links:

- <https://westwoodprimarieschool.co.uk/wp-content/uploads/2020/06/Bread-making-lesson-4.pdf>
- <https://www.warburtons.co.uk/our-company/sustainability/teaching-resources/bread-making-project/>

Y3/4 Cycle A- Spring- Moving books

	Context	Subject- specific knowledge	Subject specific skills development
<p>D.T Y3/4</p>	<p>Moving books Natural disasters</p> <p>Design</p> <p>Make</p> <p>Evaluate</p> <p>Technical knowledge</p> <p>Vocabulary:</p> <ul style="list-style-type: none"> • Linkage • Loose/fixed pivot • Slot • Twist • Turn • Mechanism • Cut • Measure • Slider 	<ul style="list-style-type: none"> • Different materials have difference properties. • Products with the same use, can have different designs. • Different tools are necessary for different jobs.  	<ul style="list-style-type: none"> • Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups. • Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. • Select from a range of tools for different tasks. • Select and give reasons for choice of materials and components. • Compare different designs of same objects and evaluate. • Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. • How to strengthen, stiffen and reinforce more complex structures. • Understand and use mechanical systems in their products (gears, pulleys, cams, levers and linkages).
<p><u>Key expected outcomes</u> Design, make and evaluate a moving book.</p>			
<p style="text-align: center;"><u>Useful websites/links:</u></p> <ul style="list-style-type: none"> • https://www.youtube.com/watch?v=xYBwePZOnFY • https://twitter.com/irbypriskool/status/1237409490737278977/photo/4 • https://www.bluegatefields-jun.towerhamlets.sch.uk/year-3-blog/design-and-technology-making-linkage-and-lever-mechanisms 			

Y3/4 Cycle A- Summer- Cams (links to forces in science)


	Context	Subject- specific knowledge	Subject specific skills development
D.T Y3/4	<p>Cams- links to forces in science.</p> <p>Design</p> <p>Make</p> <p>Evaluate</p> <p>Technical knowledge</p> <p>Vocabulary:</p> <ul style="list-style-type: none"> • Cams • Slider • Movements • Linear • Rotary • Wood 	<ul style="list-style-type: none"> • Sketch and model alternative ideas. • Record ideas using annotated diagrams. • Make prototypes. • Use found information to inform decisions. • Understand how key events and individual have helped shape the world. • Research a range of innovative, functional, appealing products and determine whether are fit for purpose. • Explore, investigate and analyse a range of existing products. • Evaluate a product against the design criteria. • Understand a product should be well finished in a way that would appeal to others. • Listen and respond to the views of others on how to improve work. <div data-bbox="491 1317 979 1771" data-label="Image"> </div>	<p>Construction</p> <p>Join materials using appropriate methods.</p> <p>Use a cam to make an up and down mechanism.</p> <p>Build frameworks using a range of materials to support mechanisms. E.g., wood, corrugated card and plastic.</p> <p>Use a glue gun with close supervision.</p> <p>Understand and use mechanical components such as gears, pulleys, levers in a product.</p> <ul style="list-style-type: none"> • Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups. • Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. • Select from a range of tools and equipment to perform practical tasks (e.g., cutting, shaping, joining and finishing) • Investigate and analyse a range of existing products. • Evaluate their ideas and products against their own design criteria and consider the views of

			<p>others to improve their work.</p> <ul style="list-style-type: none"> • Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. • Understand and use mechanical systems in their products (gears, pulleys, cams, levers and linkages).
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<p><u>Key expected outcomes</u> Explore the range of mechanisms. Produce design criteria for product. Design a product. Create a product using a range of mechanisms then evaluate it.</p>			
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<p><u>Useful websites/links:</u></p> <ul style="list-style-type: none"> • https://www.primaryresources.co.uk/dandt/pdfs/making_a_simple_cam_mechanism.pdf • https://www.youtube.com/watch?v=UYtSpnO2jul 			
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Y3/4 Cycle B- Autumn- Food (Midday meals)

	Context	Subject- specific knowledge	Subject specific skills development
D.T Y3/4	<p>Food technology- Midday meals</p> <p>Design</p> <p>Make</p> <p>Evaluate</p> <p>Technical knowledge</p> <p>Vocabulary:</p> <ul style="list-style-type: none"> • Cut • Chop • Grate • Healthy • Sweet • Savoury • Ingredients 	<ul style="list-style-type: none"> • Awareness of food available- seasonality, production methods. • Developing knowledge and ability to use kitchen equipment independently. • Understanding of sweet and savoury. • Secure understanding of instructions and how to follow. • Exploring multicultural food. 	<ul style="list-style-type: none"> • To follow a step-by-step plan, choosing the right equipment and materials. • Research sandwiches and different lunch options from around the world (sweet sandwich, healthy sandwich, alternative to a sandwich). • Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed. • Understand and apply the principles of a healthy and varied diet, • Select the most appropriate tools and techniques for the given task. • Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. • Discuss how different food and ingredients come together.

Key expected outcomes

Pupils will design and make a sandwich or an alternative lunch option.
Pupils should show an understanding of nutrition, cooking methods and availability of ingredients.

Useful websites/links:

- <https://www.tasteatlas.com/most-popular-sandwiches-and-wraps-in-spain>
- <https://annaeverywhere.com/traditional-polish-food/>
- <https://snippetsofparis.com/french-lunch/>
- <https://www.german-way.com/for-expats/living-in-germany/expat-how-to-guides-for-germany/how-to-eat-like-a-german/>

Example of unit planning:

Lesson 1- Evaluate a range of existing products.

Focus on:

- Research popular sandwich types in the UK, what do they usually consist of?
- Discuss likes and dislikes for sandwich fillings.
- Compare to European countries lunch options (e.g., French baguettes, polish sandwiches, Spanish alternatives).
- Mind map- one for sandwich fillings in the UK and another one for European alternatives.



Task- Pupils to stick in their design brief sheet. Then, use the iPads to research different types of sandwiches in the UK. Compare to lunch alternatives in different European countries. Complete mind map worksheet, comparing lunch options in UK and Europe.

Lesson 2- Explore and design different types of sandwiches/lunch alternatives.

Focus on:

- Design four different types of sandwiches/lunch options in the UK or in Europe, labelling the fillings and evaluating likes and dislikes.
- Consider the principles of a healthy and varied diet.

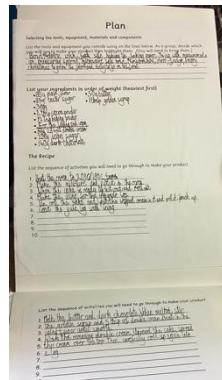


Task- Pupils to recap UK and European lunch alternatives from last lesson. Pupils to complete 4 different designs, labelling the ingredients and where they come from/ can be bought.

Lesson 3- Plan and design a final midday meal.

Focus on:

- Research and describe how different food and ingredients come together.
- Is the meal savoury, sweet or both?
- Is it a well-balanced meal?
- Where is this meal usually found and why?
- Why have the fillings been chosen? Is it taste, texture, appearance?



Task- Pupils to complete the design sheet, labelling their final design.

Pupils to note the ingredients and method for their meal.

Lesson 4- Create a midday meal.

Focus on:

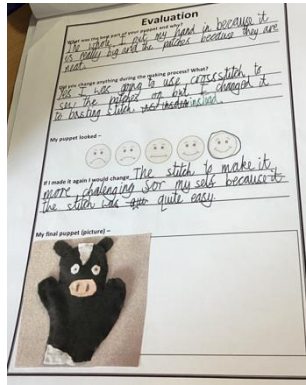
- Selecting the most appropriate tools and techniques for the given task.
- Follow a step-by-step plan.

Task- Pupils to follow their plan from the previous lesson to create their midday meal. Teacher to take pictures on the iPad as the pupils are creating their midday meals.

Teacher to take pictures on the iPad to stick into books.



Lesson 5- Evaluate my midday meal.

- Evaluate the final product against their design.
- Consider the strengths of their creation.
- What would they change/ do differently?





Task- Complete evaluation sheet.

3/4 Cycle B- Spring- Moving cars (link to electricity science unit)

	Context	Subject- specific knowledge	Subject specific skills development
D.T Y3/4	<p>Moving cars</p> <p>Design</p> <p>Make</p> <p>Evaluate</p> <p>Technical knowledge</p> <p>Vocabulary:</p> <ul style="list-style-type: none"> • Axles • Straws • Cut • Stick • Wheels • Pulley • Mechanics • Strengthen 	<ul style="list-style-type: none"> • Different materials have different properties. • Products with the same use can have different designs. • Different tools are necessary for different jobs.  	<ul style="list-style-type: none"> • Compare different designs of same objects and evaluate. • Annotate different products and their design features and evaluate. • Select from a range of tools for different tasks. • Select and give reasons for choice of materials and components. • Evaluate their ideas and products against their own success 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. • How to strengthen, stiffen and reinforce more complex structures. • Understand and use mechanical systems in their products (gears pulleys, cams, lever and linkages)
<p><u>Key expected outcomes</u> Design, make and evaluate a moving car.</p>			
<p style="text-align: center;"><u>Useful links/websites:</u></p> <ul style="list-style-type: none"> • https://www.bbc.co.uk/teach/class-clips-video/design-and-technology-ks2-axles/zmhfvk7 • https://www.youtube.com/watch?v=FUZtkheTf38 			

Y3/4 Cycle B- Summer- Stuffed toys

	Context	Subject- specific knowledge	Subject specific skills development
D.T Y3/4	<p>Stuffed toys</p> <p>Design</p> <p>Make</p> <p>Evaluate</p> <p>Technical knowledge</p> <p>Vocabulary:</p> <ul style="list-style-type: none"> • Running stitch • Thread • Needle • Align • Measure • Decorate • Accurate • Stuffing 	<ul style="list-style-type: none"> • Different materials have different properties. • Products with the same use can have different designs. • Different tools are necessary for different jobs.  	<ul style="list-style-type: none"> • Compare different designs of same objects and evaluate. • Annotate different products and their design features and evaluate. • Select from a range of tools for different tasks. • Select and give reasons for choice of materials and components. • Evaluate their ideas and products against their own success 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.

Key expected outcomes

Design, make and evaluate a stuffed toy (using running stitch).

Useful websites/links:

- <https://www.youtube.com/watch?v=qvN99116Ugl>
- <https://www.otteryprimary.co.uk/soft-toys/>
- <https://www.craftfoxes.com/how-to-stuffed-toy-a-first-sewing-craft-to-do-with-kids>

5- Autumn- Yule logs (Autumn 2)

	Context	Subject- specific knowledge	Subject specific skills development
D.T Y5	<p>Food technology- Yule logs</p> <p>Design</p> <p>Make</p> <p>Evaluate</p> <p>Technical knowledge</p> <p>Vocabulary:</p> <ul style="list-style-type: none"> • Stir • Mix • Melt • Measure accurately • Scales • Whisk • Bake • Roll • Pour 	<ul style="list-style-type: none"> • Investigate products/images to collect ideas. • Sketch and model alternative ideas. • Record ideas using annotated diagrams. • Use found information to inform decisions. • Research a range of innovative, functional, appealing products and determine whether they are fit for purpose. • Explore, investigate and analyse a range of existing products. • Evaluate a product against the design criteria. • Understand a product should be well finished in a way that would appeal to users. • Listen and respond to the views of others on how to improve their work. 	<ul style="list-style-type: none"> • To learn to cut, mix, spread, slice, blend, grate and chop ingredients with some accuracy using a variety of equipment and tools. • To time cooking and prep time with some accuracy for accurate results. • Describe food products in terms of taste, texture, flavour and relate this to the intended purpose of the food. • Understand that some foods may not be eaten raw, as it is unsafe. • To develop understand of food groups, hygiene, healthy eating and a balanced plate.



Key expected outcomes

Understand products available and the use of decorative embellishments to sell products.
Evaluate locally available Yule Logs.

Learn cake decorating techniques- video tutorials.

Use cake decorating techniques to produce an attractive Yule Log (If needed, you can buy the Swiss roll but children must understand how to heat it in the oven and children to make the ganache from scratch in order to meet all the skills objectives).

Useful links/websites:

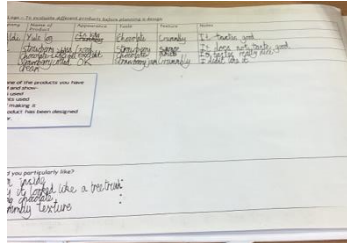
- <https://www.cookingwithmykids.co.uk/yule-log/>
- <https://www.bbcgoodfood.com/recipes/chocolate-ganache>

Example of unit planning:

Lesson 1- Evaluate a range of existing products before planning a design.

Focus on:

- Research different examples of Yule Logs.
- What country did Yule Logs originate from? Do Yule Logs look different in different countries?
- Pupils to test 3 different yule logs (bought from different shops) and evaluate the appearance, taste and texture.



Task- Pupils to stick in their design brief sheet. Then, use the iPads to research what Yule Logs are and where they originated from. Compare Yule Logs from different countries and discuss key features of a Yule Log. Test different types of Yule Logs and complete evaluation sheet.

Teacher to take pictures on the iPad to stick into books.

Lesson 2- Explore different designs of Yule Logs, understanding key decorative features.

Focus on:

- Design and label four different types of Yule Logs and explain what they want the Yule Log to do when cooking.



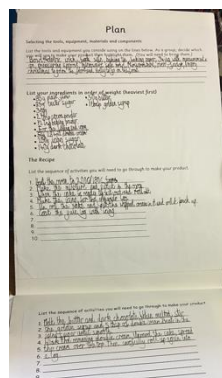
Task- Pupils to complete 4 different designs, labelling the ingredients (**working in partners**).

Pupils to explain how they want their Log to cook.

Lesson 3- Plan a final design of a Yule Log.

Focus on:

- Research and describe how different food and ingredients come together and use this information to decide on edible decorations.
- Which techniques will be used? (e.g., cut, mix, spread, slice, blend, grate and chop).
- Is the meal savoury, sweet or both?
- Describe the taste, texture, appearance.



Task- Pupils to complete the design sheet, labelling their final design (**working in partners**).

Pupils to write the ingredients and method for their Yule Log (**working in partners**).

Lesson 4- Work with equipment and ingredients to create a Yule Log.

Focus on:

Task- Pupils to follow their plan from the previous lesson to create their Yule Log.

- Selecting the most appropriate tools and techniques for the given task.
- Follow the method and design criteria created in the previous lesson.
- Icing skills to decorate and construct the design.
- Time cooking and prep time with some accuracy for accurate results.

Teacher to take pictures on the iPad as the pupils are creating their Yule Logs.

Spread this lesson and the next lesson over a full day- create in the morning then evaluate in the afternoon.

Teacher to take pictures on the iPad to stick into books.

Lesson 5- Evaluate my Yule Log.

- Evaluate the final product against their design.
- Describe the Yule Log in terms of taste, texture, flavour and relate this to the intended purpose of the food.
- Consider the strengths of their creation.
- What would they change/ do differently?

Evaluation

What would you say are the strengths of your product?
The design, even when we were told it it rolled very well. We didn't have all the equipment.

Did you change anything during the making process? What?
We added the chocolate and butter in the mixture.



Design criteria	Fully meets	Partially meets	Does not meet at all	Comments
1	✓	✓		We rolled it doesn't need to rise
2	✓			
3			✓	I did get like the top was we were
4	✓			
5	✓			

What do you peers think?
 Positives: *It looks well rolled. It is very detailed. It looks like a log.*
 Improvements: *More icing sugar. Neater edges.*

How could you make it better next time? What would you do differently?
When we put the icing on we need to carefully cover it with the icing.

Task- Complete evaluation sheet.

Y5- Spring- Hand puppets.

	Context	Subject- specific knowledge	Subject specific skills development
D.T Y5	<p>Hand puppets</p> <p>Design</p> <p>Make</p> <p>Evaluate</p> <p>Technical knowledge</p> <p>Vocabulary:</p> <ul style="list-style-type: none"> • Cutting • Sewing • Needle • Threading • Stick • Measure 	<ul style="list-style-type: none"> • Different materials have different properties. • Products with the same use can have different designs. • Different tools are necessary for different jobs.  	<ul style="list-style-type: none"> • Compare different designs of same objects and evaluate. • Annotate different products and their design features and evaluate. • Select from a range of tools for different tasks. • Select and give reasons for choice of materials and components. • Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. • Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.

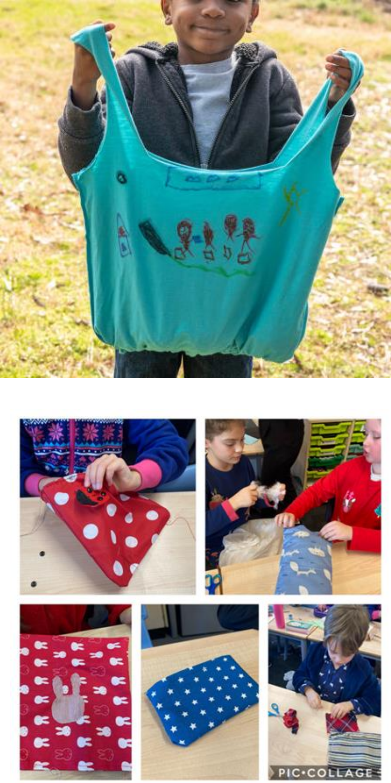
Key expected outcomes

Design, make and evaluate a hand puppet (use a range of stitching, e.g., cross stitch, running stitch, blanket stitch).

Useful websites/links:

- <https://www.youtube.com/watch?v=e0HPRaUEIYU>
- <https://www.youtube.com/watch?v=vEg371M5dDw>
- <https://empoweredparents.co/types-of-puppets/>
- <https://www.twinkl.co.uk/teaching-wiki/hand-puppet>

Y5- Summer- Recycling/ repurposing

	Context	Subject- specific knowledge	Subject specific skills development
<p>D.T Y5</p>	<p>Recycling/ repurposing (Could use litter from the beach or just link to recycling old fabrics).</p> <p>Design</p> <p>Make</p> <p>Evaluate</p> <p>Technical knowledge</p> <p>Vocabulary:</p> <ul style="list-style-type: none"> • Stitch • Thread • Cut • Structure • Stronger • Fabric • Material • Functional • Appealing 	<ul style="list-style-type: none"> • Investigate products/images to collect ideas. • Sketch and model alternative ideas. • Record ideas using annotated diagrams. • Use found information to inform decisions. • Understand how key events and individuals have helped shape the world. • Research a range of innovative, functional, appealing products and determine whether they are fit for purpose. • Explore, investigate and analyse a range of existing products. • Evaluate a product against the design criteria. • Understand a product should be well finished in a way that would appeal to users. • Listen and respond to the view of others on how to improve their work. 	<ul style="list-style-type: none"> • To learn to mark out, use and cut simple patterns and templates, with some accuracy, using pencil/pen, ruler, tape, measure, fabric crayons and scissors, fabric scissors and needles. • 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. • To use a variety of fabrics e.g., felt, calico, hessian. • To learn to thread a needle with some accuracy. • Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities. • 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. • Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.

Key expected outcomes



Complete a project folder for fabric recycling.

You could produce a recycled shopping bag that can be used many times, reducing the need for plastic bags or create a t shirt pillowcase using old t-shirts.

Useful websites/links:

- <https://www.youtube.com/watch?v=3cnhp38An0k>
- <https://planbee.com/products/funky-furnishings>

Y6- Autumn- Edible houses (Autumn 2)

	Context	Subject- specific knowledge	Subject specific skills development
D.T Y6	<p>Food technology- Edible houses</p> <p>Design</p> <p>Make</p> <p>Evaluate</p> <p>Technical knowledge</p> <p>Vocabulary:</p> <ul style="list-style-type: none"> • Ingredients • Decorative • Structure • Strong • Weak • Melt • Stick • Construct 	<ul style="list-style-type: none"> • Developing, planning and communicating ideas. • Working with tools, equipment, materials and components to make products. • To evaluate processes and products. • Selecting ingredients.  	<ul style="list-style-type: none"> • Design a product that is fit for purpose, aimed at a specific audience. • Select ingredients, tools and equipment to create a product. • Investigate and analyse a range of existing products to inspire own designs. • Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. • Icing skills to decorate and construct design. • Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed. • Create a strong structure.
<p><u>Key expected outcomes</u> Design, create and evaluate an edible house.</p>			
<p><u>Useful websites/links:</u></p> <ul style="list-style-type: none"> • https://planbee.com/products/gingerbread-houses 			

Lesson 1- Evaluate a range of existing products before planning a design.

Focus on:

- Research different types of edible houses.
- Edible houses can look different depending on the traditions of different countries.
- Discuss the tradition of 'ginger bread houses' and the materials/ingredients used.



Task- Pupils to stick in their design brief sheet. Then, use the iPads to research edible houses and pupils to draw a sketch of an example found from research. Pupils to annotate around the sketch, describing the tradition of the edible house, ingredients, texture.

Lesson 2- Design an edible house which is fit for purpose.

Focus on:

- Recap the research of the edible houses which they looked at in the previous lesson (discuss seasonality and where ingredients are from).
- What tools/ equipment will they need?
- What will it look like- why have you chosen specific features?
- Stability?

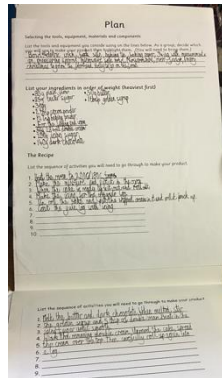


Task- In pairs, pupils to use research from the last lesson and search for the ingredients needed to create their own edible house. Pupils to design four different edible houses, then decide which one to use for their final design (**not copying** designs from research)

Lesson 3- Plan a final design of an edible house.

Focus on:

- Research and describe how different food and ingredients come together and use this information to decide on edible decorations.
- Which techniques will be used? (e.g., cut, mix, spread, slice, blend, grate and chop).
- Will the design be fit for purpose? Who is the edible house for?
- Write the method



Task- Working in pairs, pupils to draw their chosen design and label the different parts of the edible house. Complete the table underneath, describe which ingredients and equipment will be used. Then, write the method they will be using in the next lesson when creating their own edible house.

Lesson 4- Work with equipment and ingredients to create an edible house.

Focus on:

- Select ingredients, tools and equipment to create a product.
- Follow the method and design criteria created in the previous lesson.
- Icing skills to decorate and construct the design.
- Follow the method created in the previous lesson.
- How stable is the design going to be/ consider the order of making.

Do you need more icing to stick the biscuits together?

Teacher to take pictures on the iPad to stick into books.



Task- Pupils to follow their plan from the previous lesson. Teacher to take pictures on the iPad as the pupils are creating their edible houses. **Spread this lesson and the next lesson over a full day- create in the morning then evaluate in the afternoon.**

Design Technology



Fancy a Bag Design Booklet

Design Brief

In this project children design and make a bag of their own creation for a specific user and purpose. A set of resources developed for this project helps to unlock children's innovative thinking and provides a context that leads children to a wide range of different design responses increasing their ownership of design process. Children learn to cut out and join pieces of fabric to make a unique bag.

Name... Chloe Smith

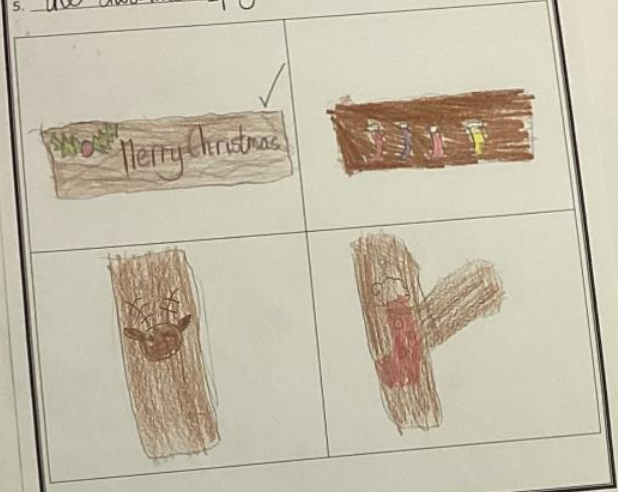
My Design Ideas

Design criteria for my product

I am designing and making my product for my family

I want my product to (list the most important feature first):

1. The cake to rise in the oven.
2. It has to be cooked properly.
3. 3 eggs Jam.
4. It's filling
5. the chocolate sponge



Lesson 5- Evaluate my edible house.

- Evaluate the final product against their design.
- Describe the edible house in terms of taste, texture, flavour and relate this to the intended purpose of the food.
- Consider the strengths of their creation.
- What would they change/ do differently?

Evaluation

What would you say are the strengths of your product?
very soft, crisp when we were eating it it rolled very well we obtained all the equipment.

Did you change anything during the making process? What?
Yes, when the biscuits were better in the microwave.



Design criteria	Fully meets	Partially meets	Does not meet at all	Comments
1	✓	✓		We realised it doesn't need to rise
2	✓			
3			✓	I did not like the taste when we were
4	✓			
5	✓			

What do you think?
 Positives:
It looks well rolled. More long edges
It is very detailed. Neater edges
It looks like a log.

How could you make it better next time? What would you do differently?
When we put the icing on we need to carefully cover it with the icing

Task- Complete evaluation sheet.

Y6- Spring- Electricity (moving fairground rides)

	Context	Subject- specific knowledge	Subject specific skills development
D.T Y6	<p>Electricity- Moving fairground rides</p> <p>Design</p> <p>Make</p> <p>Evaluate</p> <p>Technical knowledge</p> <p>Vocabulary:</p> <ul style="list-style-type: none"> • Electricity • Technology • Circuit • Forces • Motor • Wires • System 	<ul style="list-style-type: none"> • Developing, planning and communicating ideas. • Working with tools, equipment, materials and components to make products. • To evaluate process and products. • Understand mechanical components- gears, levers, pulleys. • Understand electrical system  	<ul style="list-style-type: none"> • Investigate existing products to inspire own designs. • Understand how key individuals in design and technology have helped shape the world. • Design a product that is fit for purpose, aimed at a specific audience. • Select tools and equipment (including construction materials) to create a product. • Evaluate own product against their own design criteria and consider how to improve work. • Understand and use mechanical systems in designs. • Understand and use electrical systems in their designs.

Key expected outcomes
Create a fair ground ride.

Useful websites/links:

- <https://www.tts-group.co.uk/blog/2018/12/07/ks2-merry-go-round.html>
- <https://www.heppdt.co.uk/project/fairground-ride-ks2/>
- <https://www.youtube.com/watch?v=X1Ub5Pw4ZJ0>

Y6- Summer- Memory keepsake (Possible WW2 link)

	Context	Subject- specific knowledge	Subject specific skills development
D.T Y6	<p>Memory keepsake (WW2)</p> <p>Design</p> <p>Make</p> <p>Evaluate</p> <p>Technical knowledge</p> <p>Vocabulary:</p> <ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • Developing, planning and communicating ideas. • Working with tools, equipment, materials and components to make products. • Develop a range of stitches. • To evaluate process and products. 	<ul style="list-style-type: none"> • Investigate existing products to inspire own designs. • Design a product that is fit for purpose, aimed at a specific audience. • Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer- aided design. • Select tools and equipment to create a product. • Evaluate own product against their own design criteria and consider how to improve work. • Use a range of materials and stitches to join.
<p><u>Key expected outcomes</u></p> <p>Design, create and evaluate a memory keepsake (could have a link to WW2 or an end of primary school memory keepsake).</p>			
<p><u>Useful websites/links:</u></p> <ul style="list-style-type: none"> • 			