

Design and Technology

YEAR 6	AUTUMN FOCUS	SPRING FOCUS	SUMMER FOCUS
	Artist/Texts/websites	<p>Home (schoolenterprisechallenge.org) Enterprise skills teaching resources Barclays LifeSkills Pinterest Etsy United Kingdom - Shop for handmade, vintage, custom, and unique gifts for everyone</p>	<p>History of Fairground Rides - Research and Articles - National Fairground and Circus Archive - The University of Sheffield PowerPoint Presentation (nustem.uk) Fairground Heritage Trust (fairground-heritage.org.uk) mechanical fairground rides ks2 - Bing images https://en.wikipedia.org/wiki/Garrett_Morgan https://en.wikipedia.org/wiki/Alice_H._Parker</p>
Skills	<p>Design</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 <p>Make</p> <ul style="list-style-type: none"> select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately select from and use a wider range of materials and components, including construction materials, 	<p>Design</p> <ul style="list-style-type: none"> generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design <p>Make</p> <ul style="list-style-type: none"> select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately select from and use a wider range of materials and components, including construction materials, 	<p>Cooking and nutrition</p> <ul style="list-style-type: none"> understand and apply the principles of a healthy and varied diet prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed

AUTUMN FOCUS

Topic: Rainforest Life
DT – design innovative products

VISIT/TRIP

Cadbury World (Topic)
WOW day: Mayan feast, create Maya Temples and draw gods, musical instruments.
WOW day: rainforest dioramas, rainforest art

DISPLAY:

Stalls of goods for sale at the school fayre

FINAL PRODUCT:

Enterprise Project – Christmas Fayre

Opportunities for Exploring Diversity:
Products made by a range of ethnically diverse crafts people using diverse materials.
Rangoli patterns – whole school

SPRING FOCUS

Topic: Victorian Revolution
DT – use mechanical systems

VISIT/TRIP

Milestones Museums (Topic)
WOW day: Victorian childhood role play, silhouette portraits and stamps
WOW day: Victorian toys, make peg dolls

DISPLAY:

Moving Victorian fairground rides

FINAL PRODUCT:

Moving Victorian Fairground ride

Opportunities for Exploring Diversity:
Black and ethnic minority Victorian engineers
WBD – whole school
Chinese New Year – whole school

SUMMER FOCUS

Topic: Britain at War
DT- food and nutrition

VISIT/TRIP

Hendon RAF Museum (Topic)
IOW (PE outdoor and adventurous)
WOW day: end of WW2 celebration party

DISPLAY:

Photographs of the cookery

FINAL PRODUCT:

A range of authentic WW2 food

Opportunities for Exploring Diversity:
Using food the Black GIs brought with them

	<p>textiles and ingredients, according to their functional properties and aesthetic qualities</p> <p>Evaluate</p> <ul style="list-style-type: none"> investigate and analyse a range of existing products evaluate their ideas and products against their own design criteria and consider the views of others to improve their work understand how key events and individuals in design and technology have helped shape the world <p>Technical knowledge</p> <ul style="list-style-type: none"> apply their understanding of how to strengthen, stiffen and reinforce more complex structures understand and use mechanical systems in their products [for example, gears, pulleys, ams, levers and linkages] understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] <p>Cooking and nutrition</p> <ul style="list-style-type: none"> understand and apply the principles of a healthy and varied diet prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques 	<p>textiles and ingredients, according to their functional properties and aesthetic qualities</p> <p>Evaluate</p> <ul style="list-style-type: none"> investigate and analyse a range of existing products evaluate their ideas and products against their own design criteria and consider the views of others to improve their work understand how key events and individuals in design and technology have helped shape the world <p>Technical knowledge</p> <ul style="list-style-type: none"> apply their understanding of how to strengthen, stiffen and reinforce more complex structures understand and use mechanical systems in their products [for example, gears, pulleys, ams, levers and linkages] understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] apply their understanding of computing to program, monitor and control their products 	
<p>Key Vocabulary</p>	<p>purpose, design specification, design brief, innovative, research, evaluate, design criteria, annotate, evaluate, mock-up, prototype function, innovative, user, purpose, annotated sketch, innovation, research, functional, mock-up,,</p>	<p>structure, stiffen, strengthen, reinforce, triangulation, stability, shape, join, permanent pulley, drive belt, gear, rotation, spindle, driver, follower, ratio, transmit, axle, motor, circuit, switch, circuit diagram, annotated drawings, exploded diagrams, mechanical system, electrical system, tilt switch, battery, battery holder, wire, insulator, conductor, crocodile clip, system, series circuit, parallel circuit</p>	<p>ingredients, flour, wholemeal, unleavened, baking soda, spice, herbs fat, sugar, carbohydrate, protein, vitamins, nutrients, nutrition, healthy, varied, gluten, dairy, allergy, intolerance, savoury, source, seasonality, utensils, combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat, roll out, shape, sprinkle, crumble</p>
<p>Opportunities for Learning / Cross Curricular</p>	<p>Topic - Rainforest Life</p> <p>Maths – measures, prices</p> <p>Art – design and create decorating for the stall</p> <p>English – letters, recipes, persuasion, oracy</p>	<p>Topic - Victorian Revolution</p> <p>Maths – measuring</p> <p>Art – drawing design, painting and decorating</p> <p>English – evaluation, oracy</p>	<p>Topic - Britain at War</p> <p>Maths – measuring, time</p> <p>English – evaluation, oracy</p>
<p>Learning Overview / WALTs</p>	<p>Week 1 WALT: evaluate products to sell WALT: work as a team to create a bank of ideas KQ: what products are good to sell and why?</p>	<p>Week 1 WALT: evaluate a range of mechanical rides KQ: why do you think they chose that design? KQ: what do you like / dislike about the design?</p>	<p>Week 1 WALT: make apple crumble Skills – chopping / peeling / making breadcrumbs KQ: what skills have you improved?</p>

	<p>KQ: what skills do you need to create the products?</p> <p>Week 2 WALT: look at costing for the products WALT: create a sales pitch KQ: why do you need to know the cost? KQ: how could you keep costings down?</p> <p>Week 3 WALT: pitch our ideas to a group KQ: what do you need to include into your pitch? KQ: how could you improve your pitch?</p> <p>Week 4 WALT: write letters to businesses WALT: begin creating stall decorations and price lists KQ: how could you persuade businesses to help you? KQ: why is it important to get local business backing?</p> <p>Week 5 WALT: create our products KQ: what improvements are you making to your products? KQ: what else do you need to think about to sell your products?</p> <p>Week 6 WALT: create our products WALT: sell our products KQ: what are the best selling techniques? KQ: how could you make the most of your strengths as a group?</p> <p>WEEK 7 WALT: evaluate our products KQ: what are you proud of? KQ: what would you change?</p>	<p>Week 2 WALT: understand the different systems they use (Black engineer focus – Garret Morgan) KQ: what systems do you need for your ride? KQ: what would happen if you chose the wrong system?</p> <p>Week 3 WALT: design our own fairground ride using a mechanical system KQ: what do you need to consider when designing your ride? KQ: how could you make your ride unique?</p> <p>Week 4 WALT: create our mechanical system KQ: what components will you need to have to complete the circuit? KQ: what would happen if the components were wrong?</p> <p>Week 5 WALT: create our mechanical system KQ: what have you had to adapt on your system? KQ: why did you choose that improvement?</p> <p>Week 6 WALT: refine our mechanical system KQ: how could you improve your ride further? KQ: what is the most important part of the ride?</p> <p>Week 7 WALT: evaluate our mechanical system KQ: what are you proud of? KQ: what would you change?</p>	<p>KQ: why is it important to be able to chop accurately?</p> <p>Week 2 WALT: make carrot cookies Skills – grating / mixing KQ: what skills have you improved? KQ: why is it important to be able to grate safely?</p> <p>Week 3 WALT: make eggless sponge Skills – mixing / folding KQ: what skills have you improved? KQ: why is it important to be able to mix ingredients?</p> <p>Week 4 WALT: make vegetable turnovers Skills – chopping / mixing / folding / rubbing in KQ: what skills have you improved? KQ: why is it important to be able to fold?</p> <p>Week 5 WALT: make glory buns Skills – mixing / rubbing in / kneading KQ: what skills have you improved? KQ: why is it important to be able to knead correctly?</p> <p>Week 6 D Day feast Skills – preparing different foods KQ: what skills have you improved? KQ: why is it important to be able to prepare you own food?</p>
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