

Gwyddoniaeth a Thechnoleg....Syniadau i'r Cwricwlwm i Gymru 2022

Science and Technology...Ideas for the Curriculum for Wales 2022



Lowri Harris a Jamie Taylor Ysgol Porth y Felin, Conwy

Cynllunio Gwyddoniaeth Blaenorol / Previous Science Planning

- Cynllunio seiliedig ar unedau gwaith gwyddoniaeth traddodiadol e.e. grymoedd, trydan, cynefinoedd... ..
- Proses hir i newid ein meddylfryd
- Nid addasu cynllunio blaenorol yn unig.
- Medi 2019 - ymgais gyntaf ar ffordd fwy thematig o ddysgu'r Maes Dysgu a Phrofiad Gwyddoniaeth a Thechnoleg.
- 'Fi Fy Hun' thema ysgol gyfan...y corff ac agweddau lles.

- Science planning based on traditional science units of work e.g. forces, electricity, habitats.....
- Long process in changing our mindset to follow a more cross - curricular/thematic approach.
- Not just adapting previous planning.
- September 2019 was our first attempt at a more thematic way of teaching the Science and Technology AoLe.
- 'All About Me' whole school theme...the body.

Man Cychwyn / Starting Place

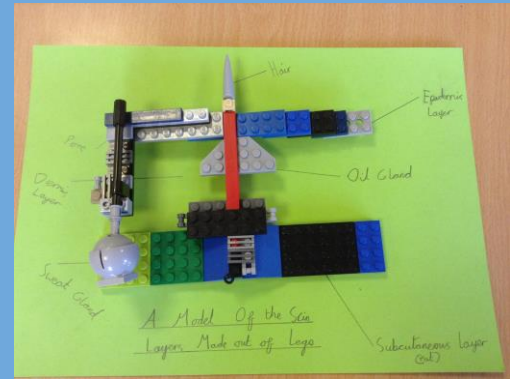
- Llais Disgyblion i fapio syniadau ar gyfer y 6 Maes Dysgu a Phrofiad yn seiliedig ar ein thema.
- Y pwysau dal i fod yn drwm ar wyddoniaeth ond agweddau trawsgwricwlaidd.
- Ffocws cryf ar Ddatganiad Beth Sy'n Bwysig 3: Mae'r Byd o'n cwmpas yn llawn o bethau byw sy'n dibynnu ar ei gilydd i oroesi. Peth iawn ai peidio?
- Llythrennedd yn amlwg
- Mathemateg a Rhifedd: graffiau (pwls), ffeithlun, bwyta'n iach e.e. Faint o halen neu fraster mewn creision?

- Pupil Voice to map ideas for the 6 AoLe based on our theme.
- Still heavily science based but aspects of cross curricular in plan.
- Strong focus on What Matters
Statement 3: The World around us is full of living things which depend on each other for survival. Right thing or not?
- Literacy prominent
- Mathematics and Numeracy: graphs (pulse), infographic, healthy eating ...How much fat/salt in crisps?

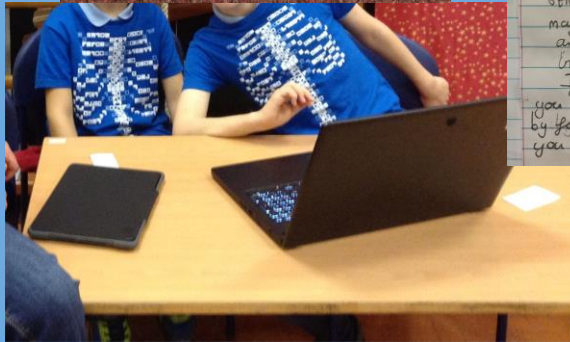
I Bet you Didn't Know, PSTT

- Adnodd am ddim gan PSTT 'I Bet you Didn't Know'.
- Gwersi trawsgwricwlaidd, gwyddoniaeth amserol, gweithgareddau ymarferol ac ymchwil ddiweddar...wedi esbonio yn symlach i staff a disgyblion gan wyddonydd
- I Bet you Didn't Know How to Grow New Skin <https://pstt.org.uk/resources/curriculum-materials/cutting-edge-science-primary-schools>

- Free resource from PSTT 'I Bet you Didn't Know'.
- Cross curricular lessons, topical science, hands on and practical activities, recent research made accessible for staff and pupils by a scientist
- I Bet you Didn't Know How to Grow New Skin <https://pstt.org.uk/resources/curriculum-materials/cutting-edge-science-primary-schools>



Y Corff / The Body



Ysgol Porth-y-felin
Ffordd Llaurist
Conwy.
LL21 8JZ

23rd October
2019

Dear Parents/Guardians,

We have written this letter to inform you that some of the lunch boxes have been quite unhealthy. Recently we have noticed that some children's lunch have had 100% full and more sugary drinks that are not good for a balanced diet also some of the food they have are very sugary and full of salt and fat.

We highly recommend that you add more fruit and veg to your child's lunch box so they can have a healthy, balanced diet. Recently we have spotted kids eating Mc Donalds so please pack healthy food like Carrot or cucumber sticks, fruit, healthy veg, Sandwich and maybe a treat like a chocolate bar and have a bottle of water.

Instead of sugary drinks.

If you don't pack healthy food or drinks you might gain weight and your heart will get disordered by fat. Your teeth will go really bad and you might lose them.

Dydd Mawrth
Description of a poem
Medi 25th in

Tangles of sparkling flames shooting in the wind.
A jungle of a red glow spreading through the darkness.
A tall towering tongues of fire.
Monic andes of fire lurking through the scarlets forest.
Blazing balls of fire, fanned from the deep dark night sky.
The tunnels that hung from the roof twisted and turned through the forest.
A lake of fire swarmed through the orange jungle.
Fingers of flame crackling through the roots.
The opening of a labyrinth of stairs.
Deep eerie smell of burning rising through the forest.

Yes or no
Is this real?
Is this an organism?
Is the image alive?
Is the image a plant?
Does this image live in the sea?

They are blood vessels (stomach)

Prediction
I think the image is a coral reef

* Adjective/verb
LTH



Cryfhau Gwyddoniaeth gyda PSTT / Strengthening Science with PSTT

Primary Science Teaching Trust (PSTT)

Kathy Schofield, Mehefin 2019
Cynhadledd Gwyddoniaeth PSTT / GwE

Gweithio gyda'n hysgol (ac ysgolion eraill Gogledd Cymru) am dair blynedd

Ionawr, 2020 llyfr 'Titanic Science', PSTT, yn cyd-fynd efo'n syniad o wyddoniaeth hollol thematig. Adnodd parod...cyfle i symud ymlaen i'r cam nesaf, sef gwyddoniaeth o fewn y thema.

<https://www.tts-group.co.uk/titanic-book/1020371.html>

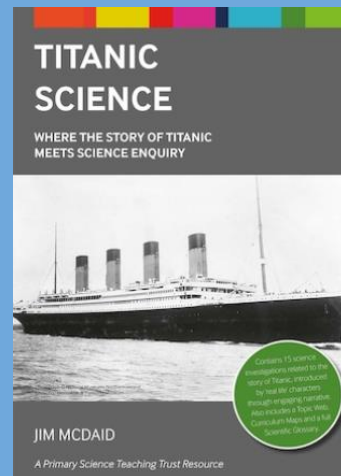
Primary Science Teaching Trust (PSTT)

Kathy Schofield, June 2019 through GwE and PSTT Conference

Working with our school (and other North Wales schools) for three years

January, 2020 Titanic Science, a PSTT publication, fitted our idea of totally thematic science. Ready made resource...moved on to the next stage which is science taught within the theme.

<https://www.tts-group.co.uk/titanic-book/1020371.html>



....Llyfr / Book 'Titanic Science'

- 15 ymchwiliad
- Cyfleuon traws-gwricwlaidd
- Gwyddoniaeth: greadigol a hwyliog
- Nifer o wahanol fathau o ymholiadau gwyddonol
- Cynnwys nifer o wahanol fathau o ymholiadau a sgiliau gwyddonol

1912.....'Virtually Unsinkable' Ship Titanic Hits an Iceberg and Sinks!

- Titanic Science: 15 investigations...introduced by 'real life' characters
- Cross-curricular opportunities throughout...literacy, numeracy, DCF.....
- Creative and fun science
- Includes numerous inquiry types and uses a variety of science skills

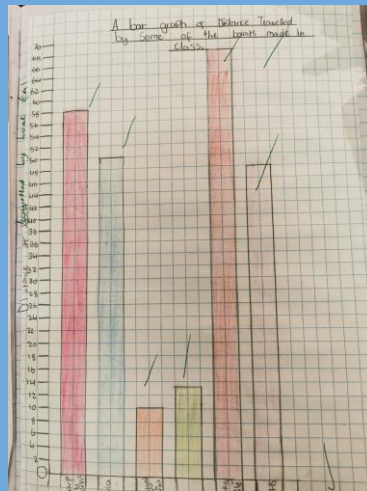


[https://pst.org.uk/application/files/9915/0841/7158/Titanic Curriculum Grid Wales.pdf](https://pst.org.uk/application/files/9915/0841/7158/Titanic_Curriculum_Grid_Wales.pdf)

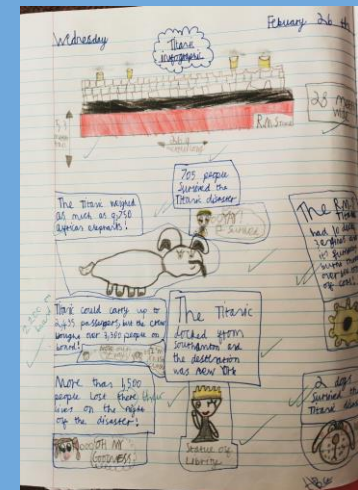
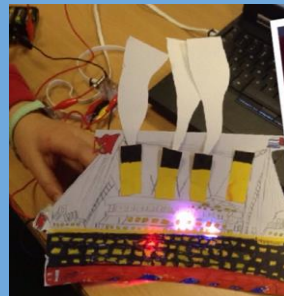
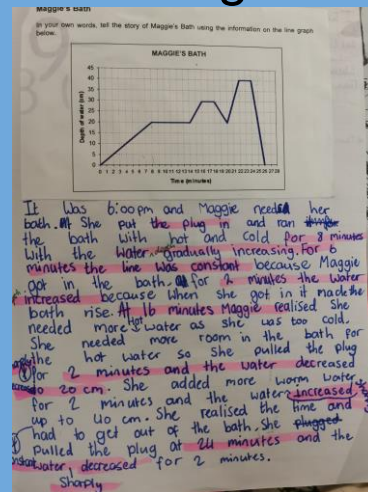
Blwyddyn 5 a 6	Thema - Titanic – 8 wythnos	Tymor y Gwanwyn 2020
<p>Language, Literacy & Communication</p> <p>Timeline: diary entries</p> <p>Email – Telegrams from Titanic to another ship Diary/VLOG</p> <p>Biography – Harold Lowe, Chatterpix app Newspaper Report/Witness Report</p> <p>Descriptions of rooms</p> <p>Decryptosaurus...water / Vocabulary Ninja p.93 Titanic Vocabulary</p> <p>SOS Titanic by Eve Bunting</p> <p>Guided Reading (folder on HWB)</p> <p>Hero dog....1st officer</p> <p><u>Cymraeg Ail Iaith</u> <u>Symud Ymlaen Gwydd Tymor 2</u> Ebst Amser Gorffennol Chwaraeon</p>	<p>Entry Point: Watch film/Documentary Titanic (My5 Great British Ships, S2 E1 Titanic)</p> <p>Exit Point:</p> <p>Merseyside Maritime Museum (1st April, 2020) Show pupil Science investigations in the end of topic parent drop in session.</p> <div> </div>	<p>Science & Technology</p> <p><u>Llyfr</u> Titanic Science gan PSTT</p> <p>Design a Model – make a ship from recycled materials</p> <p>Design a circuit and create a morse code</p> <p>See Through Science: Changing materials (Titanic based) p.66/67 Magic Ice Tower, Science is Magic by Steve Mould</p> <p>TAPS: PSTT Titanic Pulleys</p> <p>PSTT: I Bet you Didn't Know How to Clean Water using a Sieve</p> <p>I Can Explain! PSTT, Floating and Sinking</p> <p>Humanities</p> <p>Climate Change Speech – Oracy Fans</p> <p>Maps with routes and stops</p> <p>Compare Titanic (Virtual tour) to a modern Cruise Liner or Compare Rich and Poor</p>
<p>Maths & Numeracy</p> <p>Titanic Science</p> <p>Measuring/Data Handling</p> <p>Cost of living: compare salaries of workers on Titanic. Research jobs. Compare cost of living 1912 with today.</p> <p>Titanic facts and figures BBC Bitesize – infographic, calculations</p> <p>Small Steps GwE: Bar line graphs, line graphs, pie charts, mean, median, mode and range to describe a data set, multiplication and division, length, weight and mass.</p> <p>Bath Story line graph: 'Maths Eyes' Resource</p>	<div> </div>	<p>Health and Well-being</p> <p>Iceberg Illusion (Growth Mindset)</p> <p>Rights and Responsibilities – priorities between Rich/Poor - lack of lifeboats</p> <p>Debate – was the class difference fair?</p> <p>Create a <u>Whats</u> App/Facebook/Twitter fake chat from Titanic</p>
<p>Digital Competency Framework</p> <p>Database – Excel or Google Sheets on HWB</p> <p>Collaboration 2.2. Wiki or blog/diary about the Titanic</p> <p>Email – Telegrams from one ship to another</p> <p><u>Technocamps</u> – build a 2D Titanic on card...Crumble half lights on / off as boat goes down. Use motor to make half ship sink</p> <p>VLOG – Instagram type on board – Rich/Poor</p> <p>LOG BOXES – Temperature, Measuring</p>	<p>Key Words:</p> <p>buoyancy, circumference, density, displace, potential energy, propellers, thrust, communication, pulleys,</p>	<p>Expressive Arts</p> <p>Compose music to create mood – Joyful (party on the ship) to sorrow (ship sinking). Give pupils photographs to inspire creativity</p> <p><u>Gelf</u> – Olympic Art - Portraits</p> <p>Sketches: Titanic</p> <p>https://www.bbc.co.uk/programmes/p029z97h/player</p> <p>Travel posters used to advertise ocean liners in the 1920s/1930s. Hard edged styles can be achieved using cut paper? Kenneth Shoesmith – posters of Titanic</p> <p>Look at colours of the sea. Shoesmith, David Hockney's 'swimming pool' pictures, JMW Turner's picture.</p>

Titanic...Gwyddoniaeth/Science



[illegible]

Category	Number aboard	Number of Survivors	Percentage survived	Number of lives lost	Percentage lost
First Class	325	203	62.5%	122	37.5%
Second Class	285	118	41.4%	167	58.6%
Third Class	706	178	25.3%	528	74.7%
Crew	908	212	23.3%	696	76.7%
Total	2224	711	32.0%	1513	68.0%



PSQM

Eleni...Gweledigaeth ac egwyddorion ...
disgyblion, staff, rhieni a llywodraethwyr
gwyddoniaeth

Gwyddoniaeth wedi'i hamlygu yn ein hysgol

Cyfle i flaenoriaethu meysydd i'w gwella a helpu i
roi'r Cwricwlwm newydd ar waith



Primary Science Quality Mark

PSQM Round 20

Vision and principles....pupils, staff,
parents and science governor

Highlighted science within our school

Opportunity to prioritise areas for
improvement and help implement the
new Curriculum

Mwy am PSQM / PSQM Continued

Holiadur staff a taith gerdded dysgu ... i nodi meysydd i'w gwella

Cynllunio Gwyddoniaeth a Thechnoleg ysgol gyfan

Gwyddoniaeth Awyr Agored

Llyfrau llawr a gyflwynwyd o Dosbarth Meithrin hyd at Flwyddyn 6 ... yn amrywio ffyrdd o recordio gwyddoniaeth ac yn tynnu sylw at yr amrywiaeth o sgiliau ymholiadau

<https://pstt.org.uk/resources/curriculum-materials/floor-books>

TAPS Cymru (draft)....Cennin pedr/daffodil

https://pstt.org.uk/download_file/3978/306

Staff questionnaire and learning walk....to identify areas to be improved

Whole school Science & Technology Planning
Outdoor Science

Floorbooks introduced Nursery up to Year 6...vary ways of recording science and highlight enquiry types and skills

<https://pstt.org.uk/resources/curriculum-materials/floor-books>

TAPS Cymru (draft)....Cennin pedr/daffodil

https://pstt.org.uk/download_file/3978/306

Llyfrau Llawr / Floorbooks

19/04/21

Big question: What do the parts
of a daffodil do?



Eggs and ovary
Eggs are stored
in the ovary

Sepal

Protects and holds
the Petals up



Petal

Attracts bees to the
flower



stamen

Male Part of flower
that produces pollen.



carpel

Female Part of flower.
Pollen sticks on here.



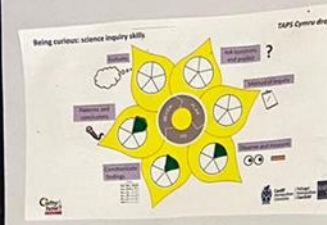
Trumpet

Attracts bees and insects
Helps grow flower's organs



Stem

SUCKS UP ALL THE WATER
to the flower.



This
Shows

Plants could not survive if any parts were
missing.

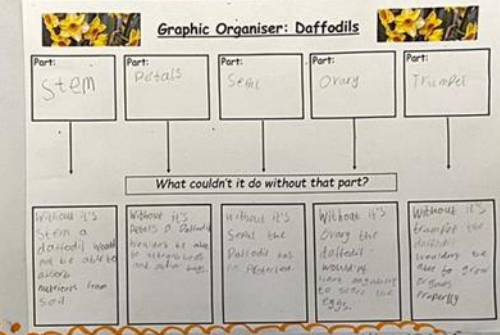
What if plants could talk?

Please don't step on me
they could talk about petals
come to me i have lots of
to tell something to move.
don't pick me please
to make friends
to thank other flower's
stop taking my water
Layla Jacob

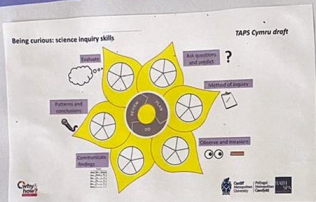
Daffodil could you
move your petals
BLOKING the sun.
softly and kind.
daffodils
help to
learn daisy
language
Louis Frankie

How much pollen
have bees taken
OFF you?
They can live longer
By saying "don't step
on me please"
THEY CAN
TALK

What if plants
could talk?
Plants would talk about pollen
soil, bees.
How would talk squishy.
How would talking be
helpful
How would plants talk
to each other different
plants would say different
languages.



Big question: Which is the odd one out? 28/04/21



Odd one Out!



The last one on the right because it is the one with the big black spots.

I think the butterfly because it takes all the pollen

I think it's the spider because it's not really on flowers!

The ladybug because it is small and it has spots.

Pink is the only one with multiple stems



right because of the size of the leaves.

there is more of them more it covers more space

The last one because it's the only one with flowers

the first one because the wonsundu wotvar dlsr um

The first one. The leaves are under water more.



I think the middle one because it has the most flowers

The bamboo because pandas eat it and all the other ones aren't food.



leaves only one more you can find on trees

on the right is the longest plant

leaves because it's the longest

The middle one because it's the only one that does not have a flower



the first one has lots of seeds one flower

the first one has lots of seeds one flower

The middle one is in some liquid



it has thorns on



leaves the only one with defence on the leaves.

the first one has not got a place in the bush the be we get hit

The nettle both because it pricks what it doesn't want to be eaten. But the thorn bush has spikes on the stem.

The last one because it's the only one with a flower

Was there a 'right' or 'wrong' answer to your Big Question? (Which is the odd one out?)

No because there is some differences and similarities in all of them.

"I think _____ because _____"

"I don't agree because _____"

"I agree with _____ because _____"

Using sentence structures to argue

Big Question:

2.12 Do seedlings compete?



I disagree with this person because they have enough space

I disagree with this person because anyone can compete with anyone even in its family therefore the same type of plant can compete?

I disagree with this person because they might fight over nutrients.

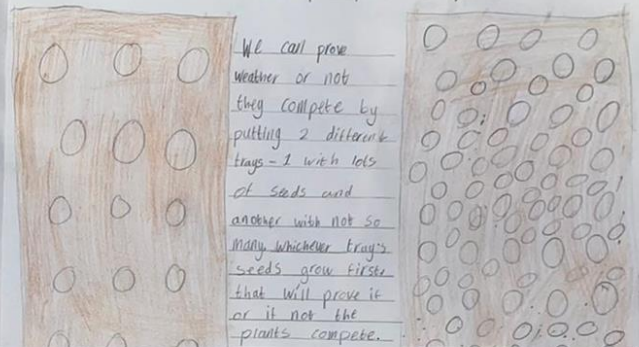
I agree with this person because if you plant too many seedlings in the same space they would compete.

I agree with this person because most plants compete if they're different

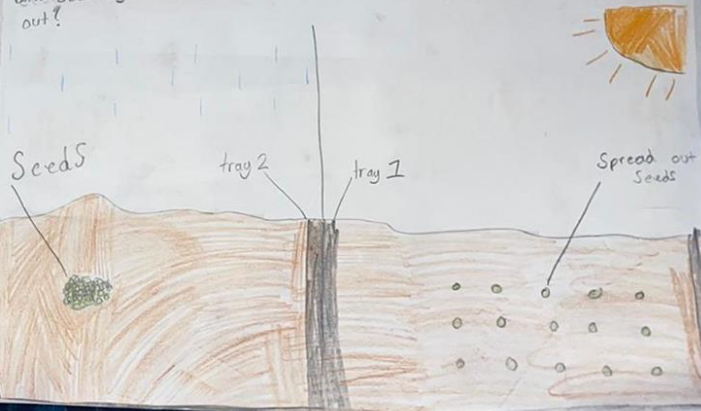
agree
I think this could possibly be right because if they all get enough water and nutrients they might not fight compete

How could we find out? Our planning: 06/05/21

How can we prove plants compete?



We can tell if flowers compete by putting two trays with seeds together. Some close some spread out. Then we will find out!



Cynllunio Gwyddoniaeth Awyr Agored / Outdoor Science Planning

Ein cynlluniau Gwyddoniaeth Awyr Agored a taflen yn dadansoddi'r mathau o ymholiadau gwyddonol a ddefnyddir ym mhob cynllun unigol (ar gyfer pob grŵp blwyddyn):

Canolfan Gymorth GwE:

<http://cefnogaeth.gwegogledd.cymru/outdoor-learning-science-and-technology/?lang=en>

Where to find our Outdoor Science plans and Analysis of enquiry types used within each individual plan (for all year groups):

GwE Support Centre:

<http://cefnogaeth.gwegogledd.cymru/outdoor-learning-science-and-technology/?lang=en>

Type of Enquiry 	 Comparative/Fair Testing	 Problem Solving	 Pattern Seeking	 Observing over Time	 Research	 Identifying, Grouping & Classifying
Nursery & Reception	Find me a Rainbow		Find me a Rainbow	Find me a Rainbow		Minibeast Patterns
	Sticky Webs	Sticky Webs	Get it Sorted.	Get it Sorted		Get it Sorted
		Can you Stick it?	Minibeast Patterns			Can you Stick it?
		Minibeast Maze	Sticky Webs		Minibeast Maze	
Years 1-2	Incy Wincy	Incy Wincy				
	Sounds in our School			Sounds in our School	Sounds in our School	
			Living & Non-Living			Living & Non-Living
		What Happens Underground.	The Weather	The Weather	What Happens Underground.	
				Animal adventure Map Sticks		Animal Adventure Map Sticks
Year 3-4						
	Forces in the Park			Forces in the Park	Forces in the Park	
	Sound Detectives		Sound Detectives			Sound Detectives
	Brilliant Birds	Brilliant Birds			Brilliant Birds	
				Playing with Plants	Playing with Plants	Playing with Plants
			Colourful Caterpillars	Colourful Caterpillars		
				Sound Monitor		
Year 5-6			Weather Patterns	Weather Patterns	Weather Pattern	
	Exploring Temperature			Exploring Temperature		
	Exploring Water	Exploring Water	Exploring Water	Exploring Water	Exploring Water	
	Forces in Action				Forces in Action	Forces in Action
				Exploring Light	Exploring Light	
		Kite Calamity			Kite Calamity	
						The Evolution of Evolution

Cynllunio Gwyddoniaeth Awyr Agored / Outdoor Science Planning

Pedwar Diben

Datganiadau Beth Sy'n Bwysig

Camau Cynnydd

Tasgau

'Be Safe' a gwefan 'CLEAPSS'

Sgiliau trawsgwricwlaidd a sgiliau cyfannol

Four Purposes



What Matters Statements

Progression Steps

Tasks

'Be Safe' a CLEAPSS

Cross curricular links and Integral skills

AOLE	Four Purposes	What Matters Statement	Progression step	Task	Cross Curricular Links / Integral Skills
				<p>Enquiry Type: Comparative/Fair Test, Observation Over Time</p>  	
Science and Technology	Understanding forces and energy helps us to predict and control the behaviour of our environment. An understanding of forces and energy can help learners overcome future challenges and use our planet's resources efficiently and sustainably, helping them become responsible citizens of	WM5- Forces and energy provide a foundation for understanding our universe.	<p>I can explore how the motion of objects can be affected by applying specific <i>forces</i>.</p> <p>I can use a variety of simple <i>models</i> to describe the forces acting on an object.</p> <p>I can explain that energy can be transferred from one place to another and how this can be used to provide the energy we need in our modern lives.</p> <p><i>I can describe the factors that affect electrical circuits, and this will enable me to change variables and predict what will happen.</i></p> <p><i>I can explain how the properties of sound and light will affect how they are experienced.</i></p> <p><i>By manipulating the properties of sound and light, I can produce a desired effect.</i></p> <p><i>I can describe how magnetic fields behave and explore a range of practical uses for them.</i></p>	<p><u>Forces in Action</u></p> <p>This Trail aims to enable children to see forces 'in action'. It can be used to introduce forces as a topic, or it can provide a context for children to demonstrate prior learning. This Trail offers many opportunities for children to generate their own questions which can be investigated back in the classroom. The children should be asking if there are forces acting upon objects and materials around them throughout the Trail, e.g., friction of shoes on different surfaces, vehicle design and air resistance. Making comparisons.</p> <p>You will need to visit 3 contrasting outdoor locations on the Trail. Such as a high street/ busy road, an open space, and a play park. This gives children a whole spectrum of everyday events where forces can be observed. See resource sheet 'Forces in Action' for a detailed lesson plan.</p>	<p>Cross Curricular Links:</p> <p>Literacy:</p> <p>Children could:</p> <p>Write a story about the day gravity or other forces disappeared.</p> <p>Numeracy:</p> <p>Children Could:</p> <p>Measure forces using Newton meters back in the classroom. After investigating how much</p>

Datganiad o'r Hyn sy'n Bwysig 6 / What Matters Statement 6

Meddwl cyfrifiadol Taflenni, cronfeydd data a chodio / Computational thinking.....Spreadsheets, databases and coding

HWB <https://www.j2e.com/> (ar gyfer gwaith cronfa ddata a chodio / for database and coding work)

Purple Mash <https://www.purplemash.com/>

Barefoot Computing <https://www.barefootcomputing.org/login>

Google Classrooms/Google Drive Sheets (Excel)

Scratch - <https://scratch.mit.edu/>

Crumble (Redfern Electronics) - <https://redfernelectronics.co.uk/crumble/>

Microbit - <https://microbit.org/>

CS Unplugged (gweithgareddau meddwl cyfrifiadol ar bapur / paper based computational thinking activities)
<https://csunplugged.org/en/>

Beth Nesaf?

...Gweoedd Syniadau Gwyddoniaeth

Cymdeithas Cemeg Frenhinol adnoddau am ddim....'Gweoedd Syniadau Gwyddoniaeth'

Enghreifftiau:

<https://edu.rsc.org/download?ac=15533>

<https://edu.rsc.org/download?ac=15532>

Themâu ar gael ar hyn o bryd ...

Gofod, Fictoriaid, Oes y Cerrig, Maya ac Aztecs, Rhufeiniaid, Yr Eifftiaid, Tuduriaid, Llychlynwyr, Gwyddoniaeth Islamaidd, Yr Ail Ryfel Byd, Gwlad Groeg Hynafol

Meithrin a Derbyn: 'Science Sparks' <https://www.science-sparks.com/pirate-themed-science-ideas-for-early-years/>

Rhufeiniaid Blynyddoedd 1 a 2

Fictoriaid Blynyddoedd 3 a 4

Blynyddoedd 5 a 6 1960au

What Next?

...Science Ideas Webs

Royal Society of Chemistry have free resources Science Webs

How to use Science Webs guide and example of a Science Web:

<https://edu.rsc.org/download?ac=15533>

<https://edu.rsc.org/download?ac=15532>

Themes available at present...Space, Victorians, Stone Age, Maya and Aztecs, Romans, Ancient Egypt, Tudors, Vikings, Golden Age of Islamic Science, Ancient Greece, World War II

Nursery and Reception: Science Sparks

<https://www.science-sparks.com/pirate-themed-science-ideas-for-early-years/>

Years 1 & 2 Romans

Years 3 & 4 Victorians

Years 5 & 6 1960s



Basic structure of a plant and functions of parts of a plant

Lots of Britain's food arrives by ship from abroad. During the war, enemy submarines sank so many ships that there was a shortage of some foods. People were encouraged to grow their own fruit and vegetables.

- Can we make a list of plants we can eat?
- Can we make a table to show plants where we eat the stems, the roots, the flowers, the fruits, the seeds or the leaves?

Basic needs of animals and humans

People made air raid shelters from iron sheets to protect themselves from falling bombs. The shelters were half buried in the garden with earth on top. The shelters were dark, damp and crowded, but people often had to spend many hours inside.

- Can we make a list of things we should take into a shelter to keep us healthy and comfortable?
- What if we could only have three things? What would we need to take with us?

Light Sources

During the Blitz, many people built air raid shelters called Anderson shelters in their gardens. The shelters were made of strong sheets of iron covering a hole dug in the earth. These shelters were dark and damp. Candles were used to light them.

- What light sources can you identify?
- Which is the brightest?
- How could we test this?

Edited by:



Millgate House Education

Nutrition – eating the right foods

During the war, it was difficult to import foods such as tea, sugar, jam and meat from other countries. These foods were rationed. Everybody was allowed only a small weekly amount of each of these foods.

- What would be good about a diet that was rationed?
- What would be not so good?
- Can we plan a healthy meal with no tea, sugar, jam or meat?

BIOLOGY

WORLD WAR II

PHYSICS

Seasonal change

The second world war lasted for six years. Soldiers had to fight in battlefields all over the world, with only temporary shelters to protect them when they rested.

- Which season do you think soldiers would have preferred and why?
- Which season would have been difficult to get through?
- Can we make a weather chart to show how the weather changes during each season?
- Are seasons the same everywhere?

Distinguishing between an object and its material

Soldiers needed uniforms and parachutes, so there wasn't much material to make everyday clothes. People were encouraged to 'make do and mend'. Old bicycle tyres were used to repair the bottom of shoes. Old parachutes were cut and sewn into underwear. String was used to hold up socks, pants and trousers.

- Can we find materials in class that we could use to make something to wear?
- Why would these materials be suitable?
- Which materials would not be suitable for making clothes? Why not?

CHEMISTRY

Identifying and grouping everyday materials

Lots of toys had a war theme: there were toy planes, toy tanks and toy battleships to float in the bath. Materials such as plastic, wood and metal were used to make equipment for the war; so many toys were made out of paper or cardboard.

- Can we sort our classroom toys into different groups, based on what they are made from?
- Which material is used the most?
- Can we find out which material is the strongest and which is the weakest?

Changes in materials

During the war, most homes had a fire to warm the room where families gathered to relax. Candles were used to light shelters.

- Can we make a list of materials we can burn?
- Can we describe what happens to materials when we burn them?



Written by: **Tracy Tyrrell**, Irchester Community Primary School, Lab_13 Irchester

