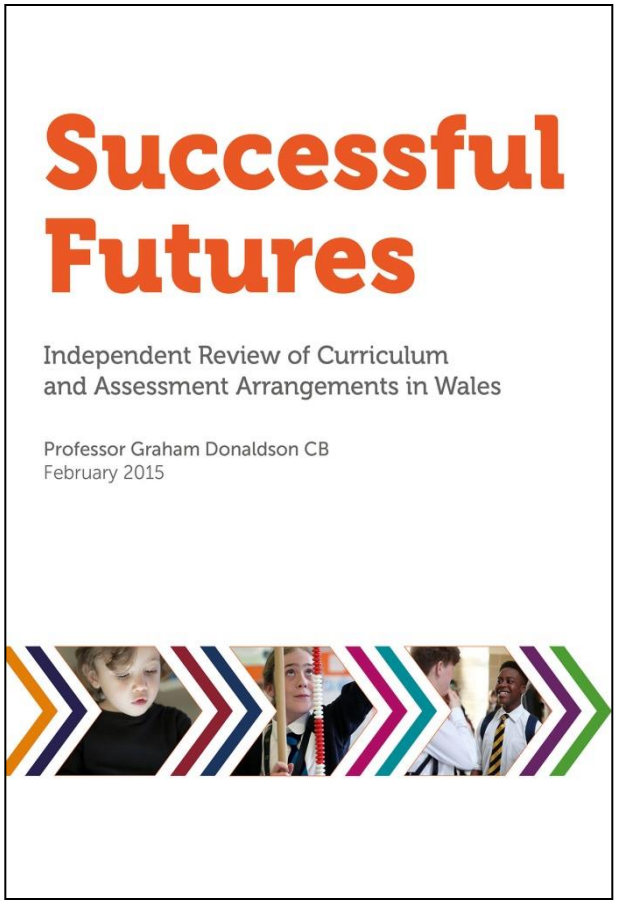
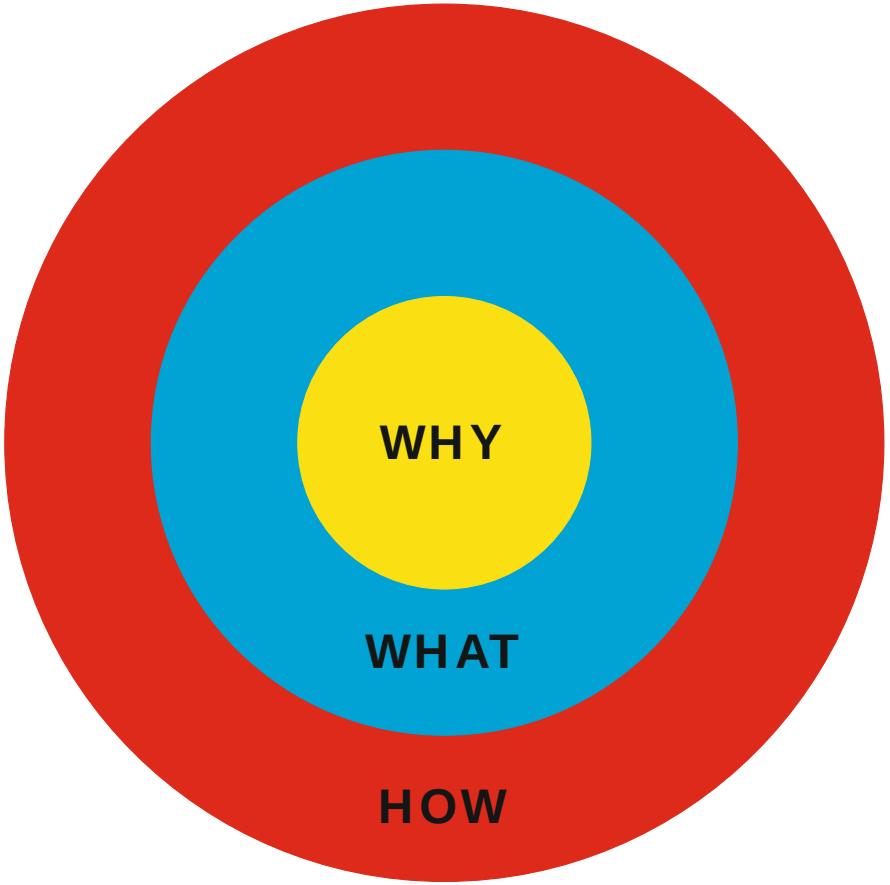
Ysgol Bryn Gwalia

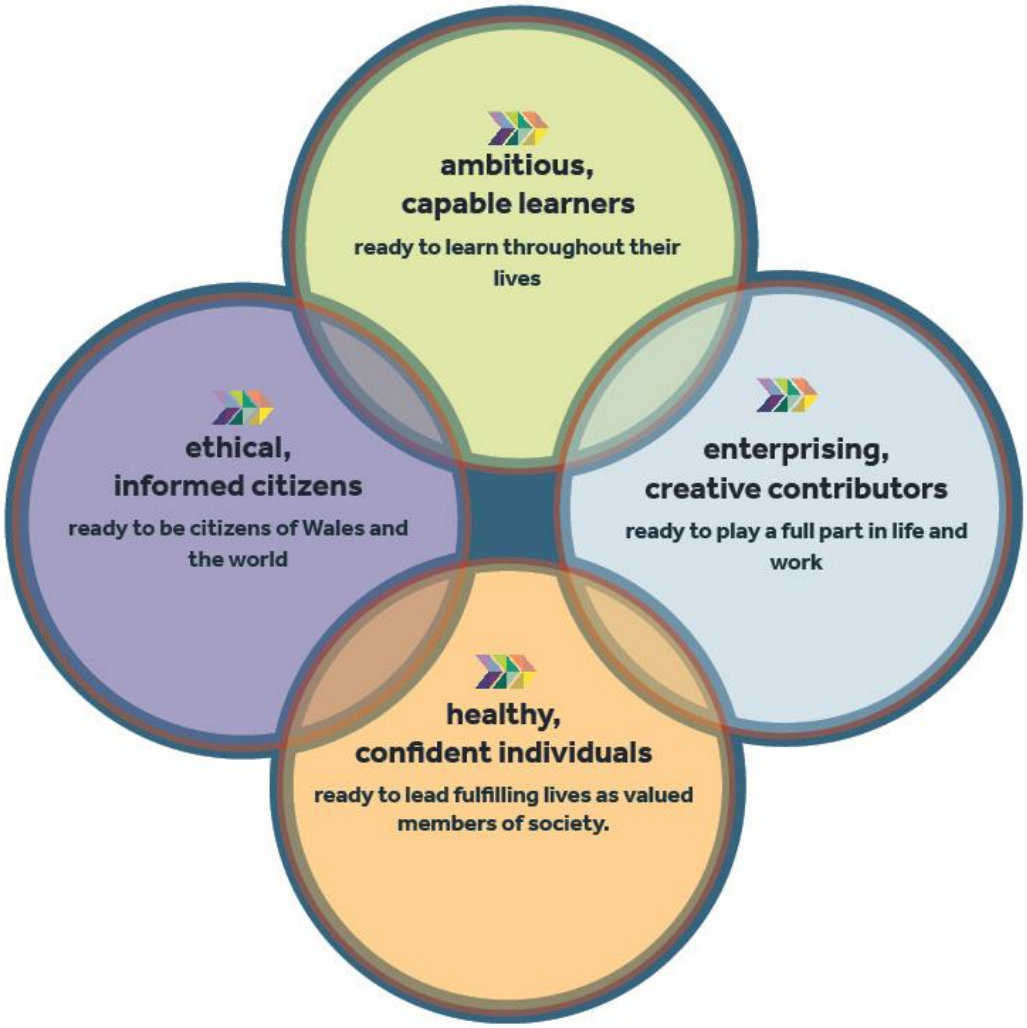
The report: Successful Futures





Purposes of the curriculum

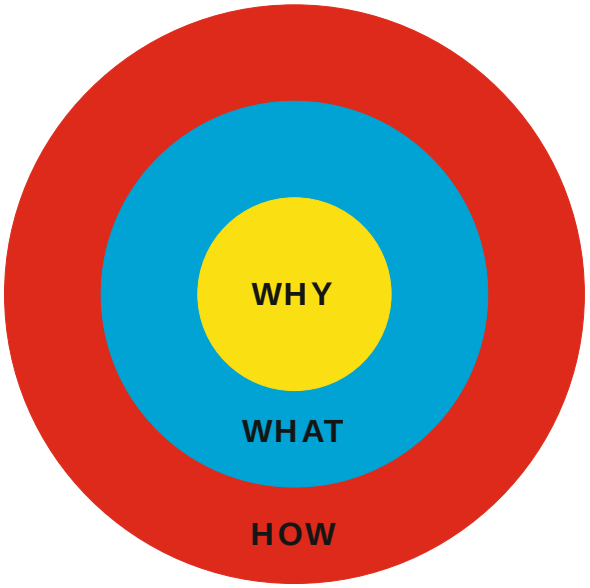
WHY



Learn from limitations of past reform.

Mobilise around clear and compelling overall vision –be clear about what matters –structures should follow not lead.

Professor Graham Donaldson CB



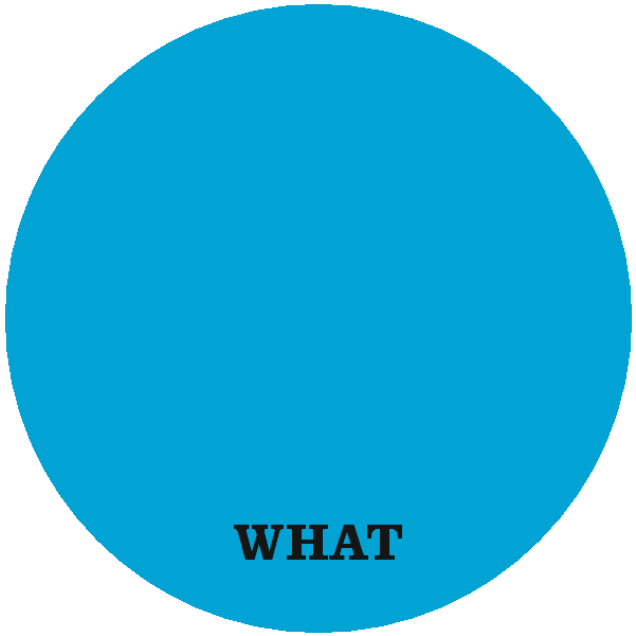
BREADTH

DEPTH

KNOWLEDGE

SKILLS

Curriculum structure



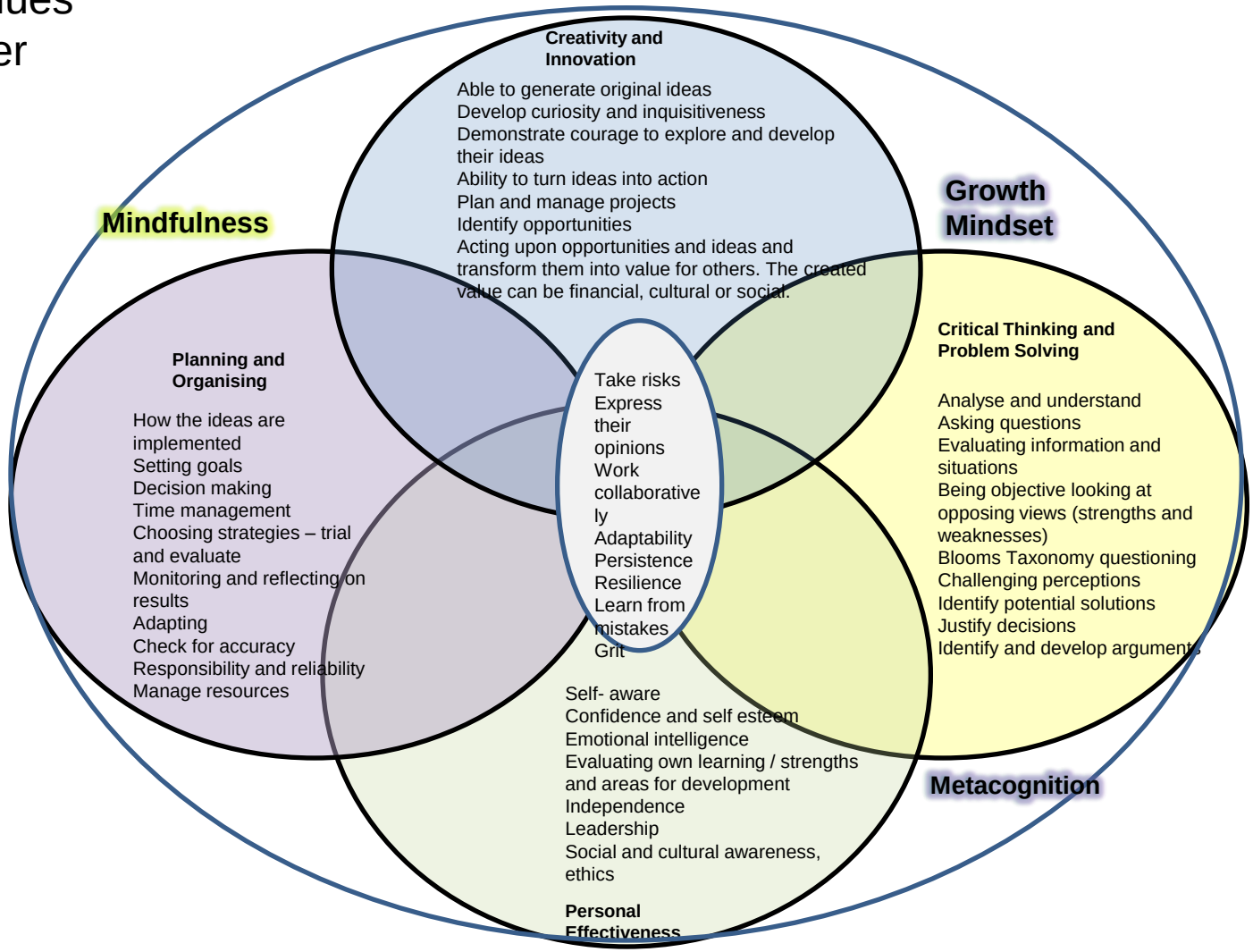
Six Areas of Learning and Experience: -

- ✓ Expressive Arts
- ✓ Health and well-being
- ✓ Humanities
- ✓ Languages, literacy and communication
- ✓ Mathematics and numeracy
- ✓ Science and technology

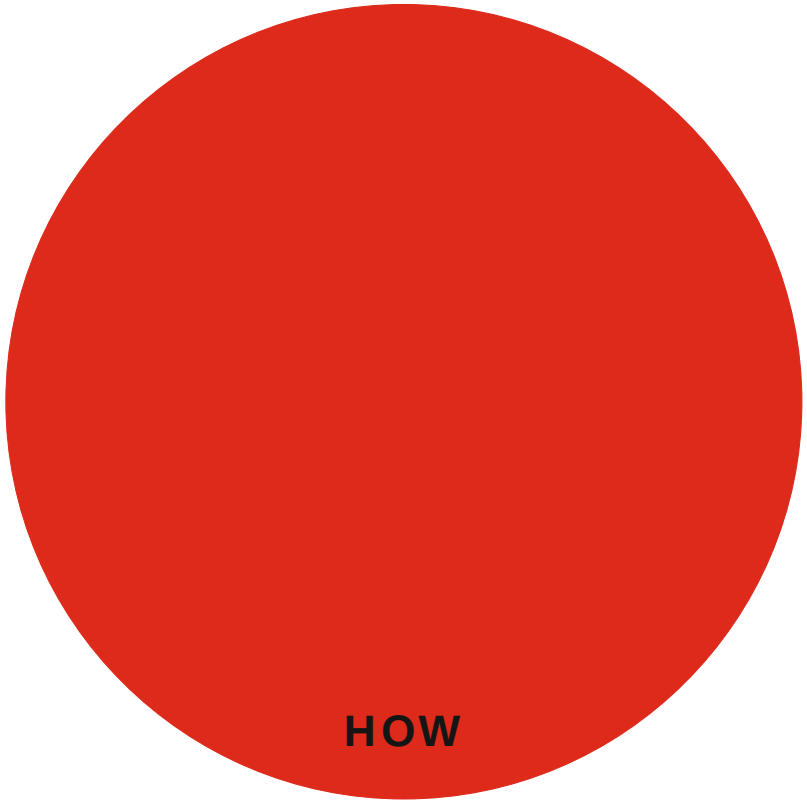
Three cross-curriculum responsibilities: -

- ✓ Digital competence
- ✓ Literacy
- ✓ Numeracy

Characters, attributes and values of wider skills



12 Pedagogical Principles



Good teaching and learning;

- Maintains a consistent focus
- challenges all learners
- Employs a blend of approaches
- Employs a blend of approaches including those that promote problem solving, creative and critical thinking
- sets tasks and selects resources that build on previous knowledge and experience and engage interest
- creates authentic contexts for learning
- employs assessment for learning principles
- ranges within and across Areas of Learning and Experience
- regularly reinforces Cross-curriculum Responsibilities, and provides opportunities to practise them
- encourages pupils to increasingly take responsibility for their own learning
- supports social and emotional development and positive relationships
- encourages collaboration

Ysgol Bryn Gwalia

The Leonardo Effect Curriculum

The curriculum

- Authentic first hand experiences
- Flexibility in presentation of knowledge and understanding

- Fusion of Art and Science
- Pupil voice

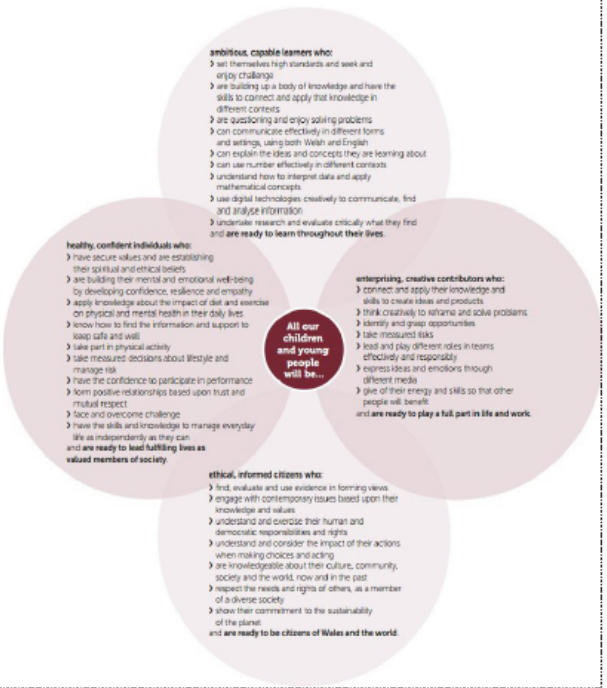
- Pupil driven, multi disciplinary curriculum
- Enquiry approach

Pupils learn through …

- Problem solving
- Critical thinking
- Collaboration

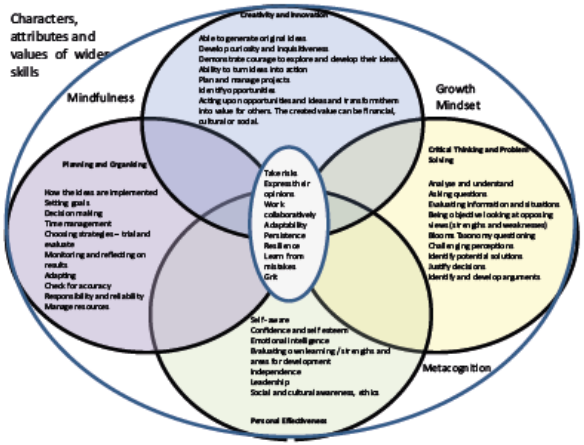
THE FOUR PURPOSES

Highlight the skills that are covered by pupils during the course of the inquiry.



WIDER SKILLS

Characters, attributes and values of wider skills



SCIENCE AND TECHNOLOGY PLANNING

SCIENCE

TOPIC	YEAR

STAGE 1: Research/observation/gathering information

What experiences will the children have to inspire and engage? What opportunities will they have for initial research and information gathering?

Child generated lines of inquiry mind map

STAGE 2: Experimentation and development of ideas

INQUIRY QUESTION:

SPECIAL INTEREST GROUPS

THE BIG IDEAS

Ideas of Science

1. All matter in the Universe is made up of very small particles
2. Objects can affect other objects at a distance
3. Changing the movement of an object requires a net force to be acting on it
4. The total amount of energy in the Universe is always the same but can be transferred from one energy store to another during an event
5. The composition of the Earth and its atmosphere and the process occurring within them shape the Earth's surface and its climate
6. Our solar system is a very small part of one of billions of galaxies in the Universe
7. Organisms are organised on a cellular basis and have a finite life span
8. Organisms require a supply of energy and materials for which they often depend on, or compete with, other organisms
9. Genetic information is passed down from one generation of organisms to another
10. The diversity of organisms, living and extinct, is the result of evolution

Ideas about Science

11. Science is about finding the cause or cause of phenomena in the natural world
12. Scientific explanations, theories and models are those that best fit the evidence available at a particular time
13. The knowledge produced by science is used in engineering and technologies to create products to serve human ends
14. Applications of science often have ethical, social, economical and political implications

WELSH DIMENSION

INTERNATIONAL DIMENSION

STAGE 3: Creation/ applying knowledge

CROSS-CURRICULAR RESPONSIBILITIES

Mindmap/s to record other curriculum skills. Areas covered from the PoS, AoLEs, and the three cross-curricular responsibilities: Literacy, Numeracy and Digital Competence

LEVEL DESCRIPTORS	

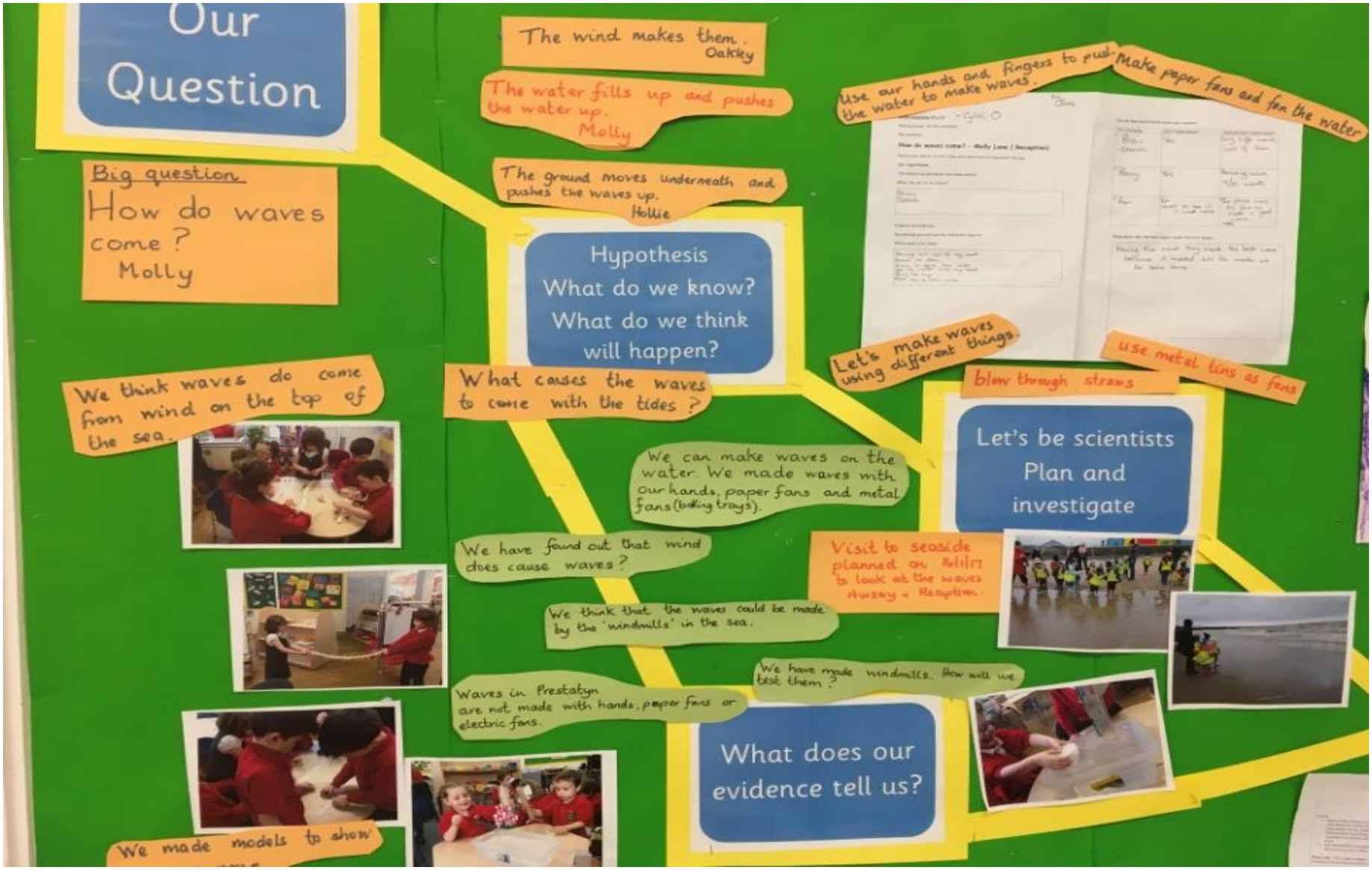
STAGE 4: Extension

Assessment as Learning: The Five P's

	Record of chosen format for each child. Include a brief description of the work and signpost where this can be found.
PUBLICATION any printed or electronic work, made for distribution Examples: * Poster * Leaflet * Art work * Story * Letter	
PERFORMANCE an act of presenting a play, concert, or other form of entertainment Examples: * Play * Concert * Dance * Comedy sketch * Sporting performance	
PRESENTATION a speech or talk in which a new product, idea, or piece of work is shown and explained to an audience Examples: * PowerPoint * Keynote * Demonstration * Talk	
PROGRAMME a broadcast on television or radio, or a collection of instructions to be executed by a computer Examples: * News programme * Radio show * Computer game * App	
PRODUCTION an item made from components or raw materials, or management of a film, play or record Examples: * Model * Structure * Staging/lightening * Editing of film	

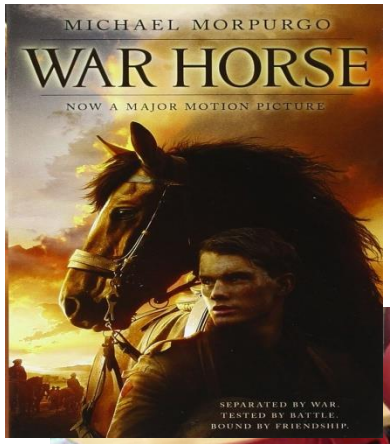
How do waves come?

A working wall



Making a wave - Reception …


We are
mini
Scientists
Listening
Comparing
Measuring
Thinking
Sorting and grouping
Decision making
Communicating
Problem solving
Making decisio
Expressing opinions/feelings
Asking/answering questions
Interacting
Describing
Experimenting
Enquiring
Observing
Exploring
Investigating
Sequencing
Ideas
Identifying
Examining
Put our wind mills in
TOPIC-What we w
Water MUSEUM.-B
Pretend the ocean
Water gun -spray
get the Fathers-T



The pupils lead the learning

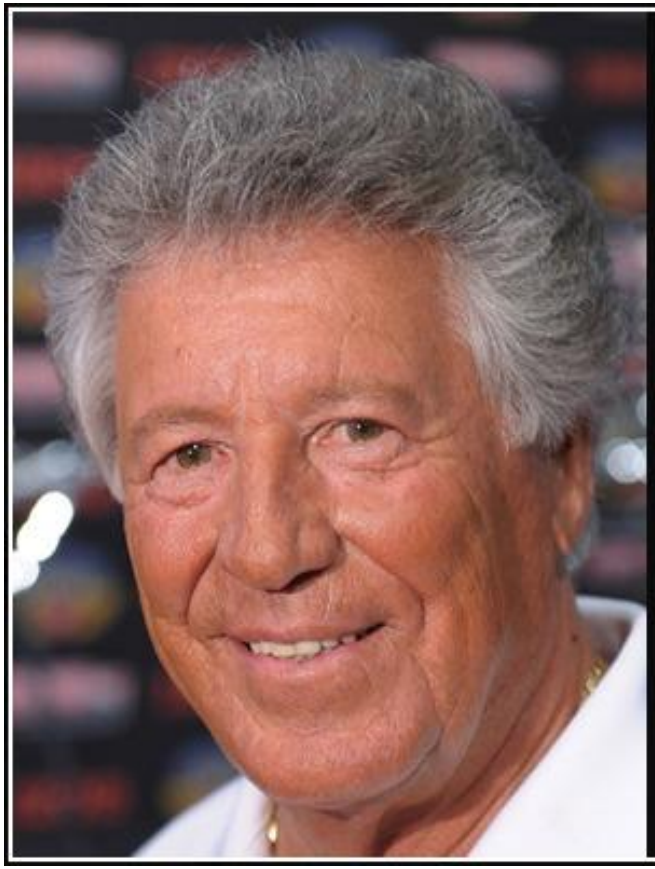
War and Peace

First hand experiences

Our involvement with Pioneer schools

Strand 1 – Wider skills WD & IP	**OECD – schools as a learning organisation**
Strand 2 – creation of AOLE for Expressive Arts	**Pilot school – new teacher standards**
Strand 3 – Population of AOLEs	**Arts Champion (The Arts Education Network for North Wales)**


U OVOJ JE KUĆI ROĐEN
IN QUESTA CASA È NATO IL
28.02.1940
MARIO ANDRETTI
PRVAK SVIJETA
CAMPIONE DEL MONDO
FORMULA 1 1978
MOTOVUN
17. 04. 2004
OLDTIMER KLUB PULA
RUOTE DEL PASSATO PORDENONE

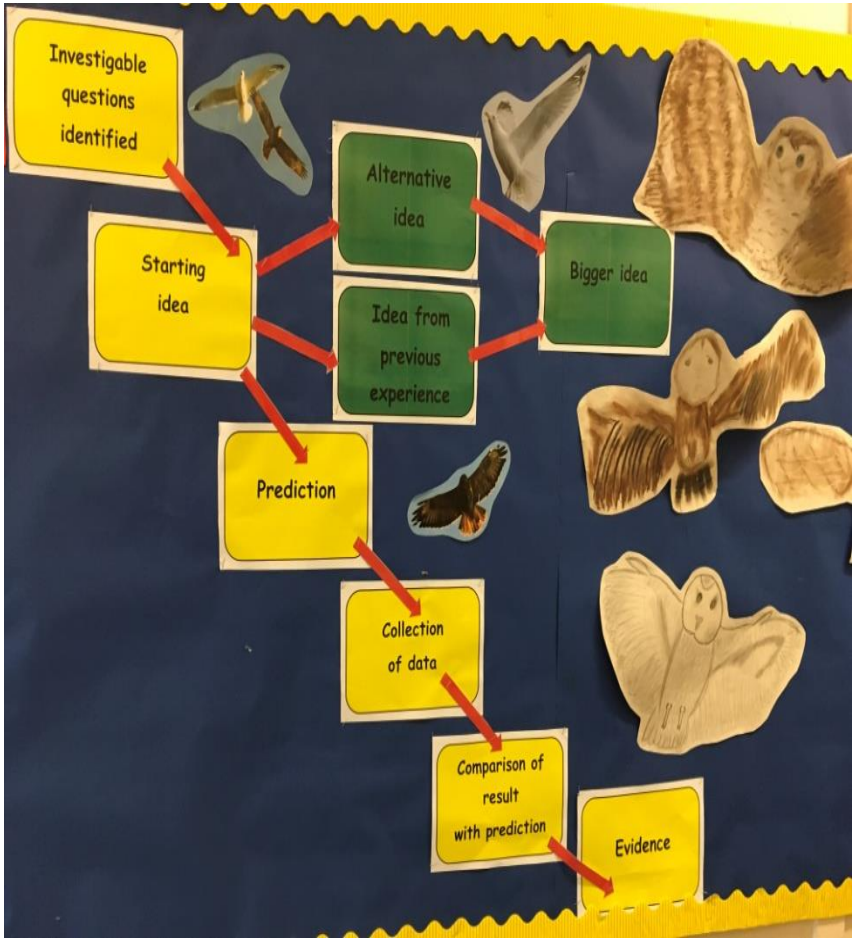


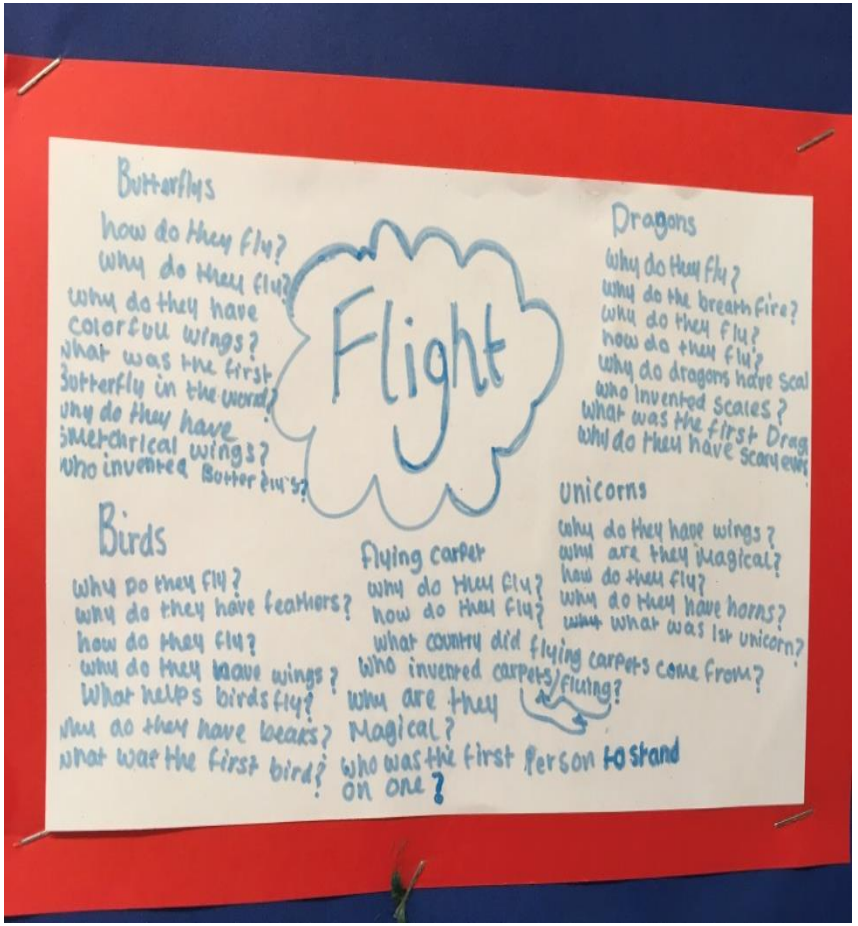
If everything seems under control, you're just not going fast enough.

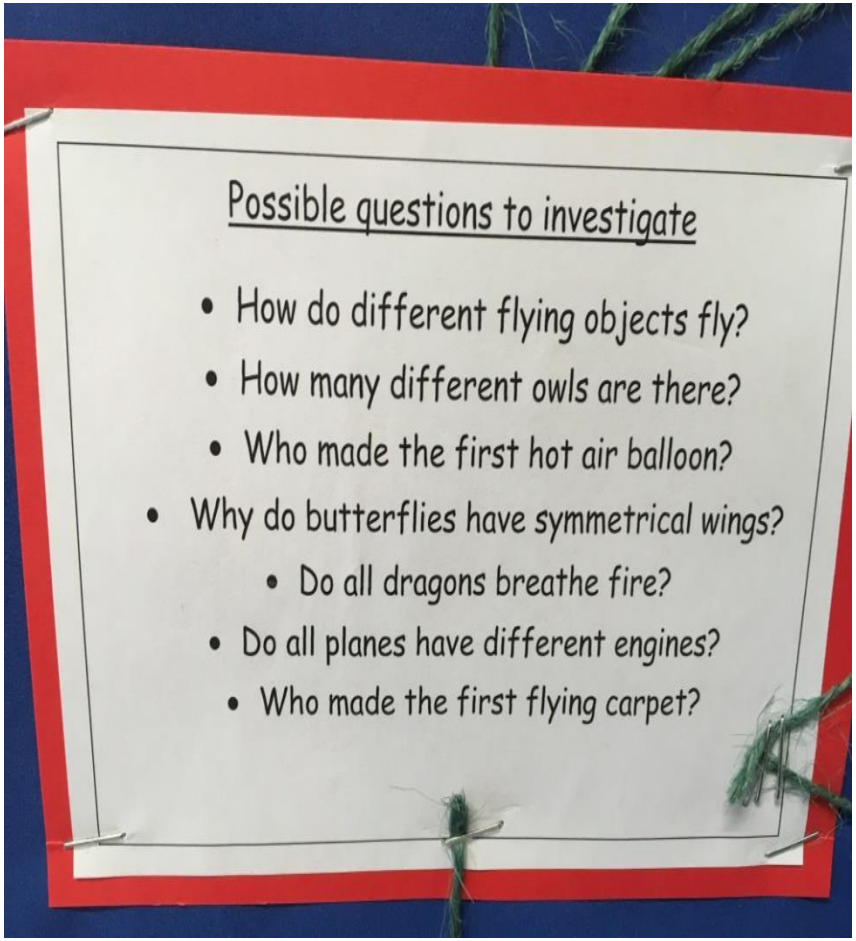
— Mario Andretti —

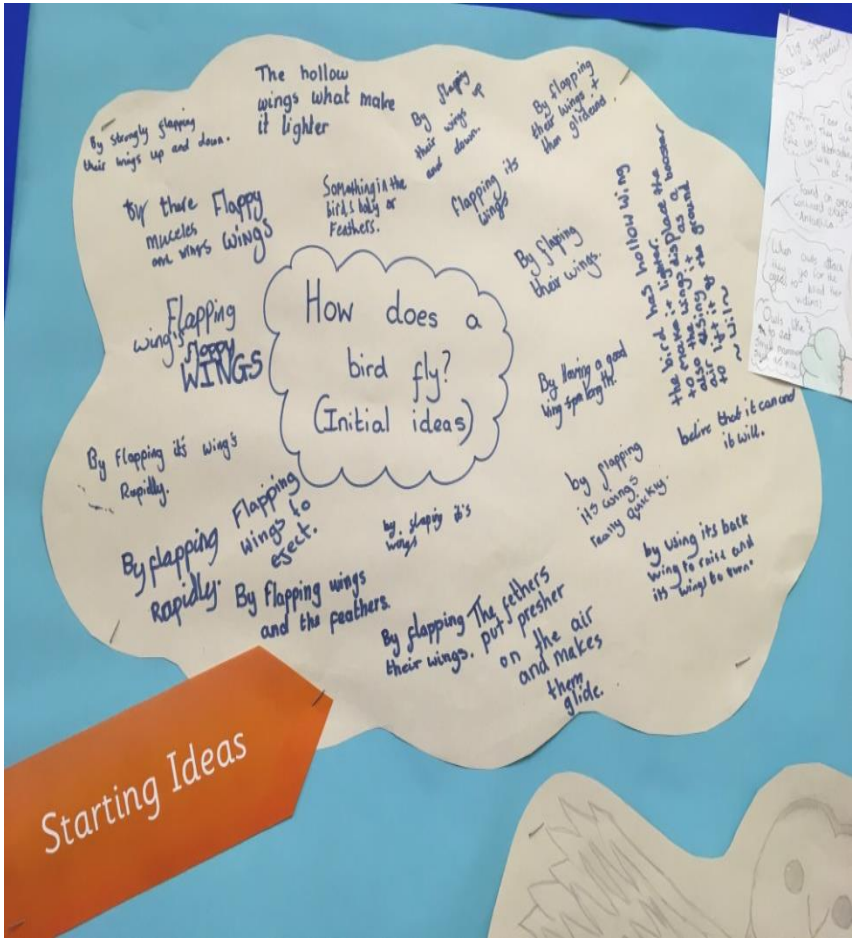
AZ QUOTES

March 17th 2017 aged 77


Investigable questions identified
Starting idea
Alternative idea
Idea from previous experience
Bigger idea
Prediction
Collection of data
Comparison of result with prediction
Evidence

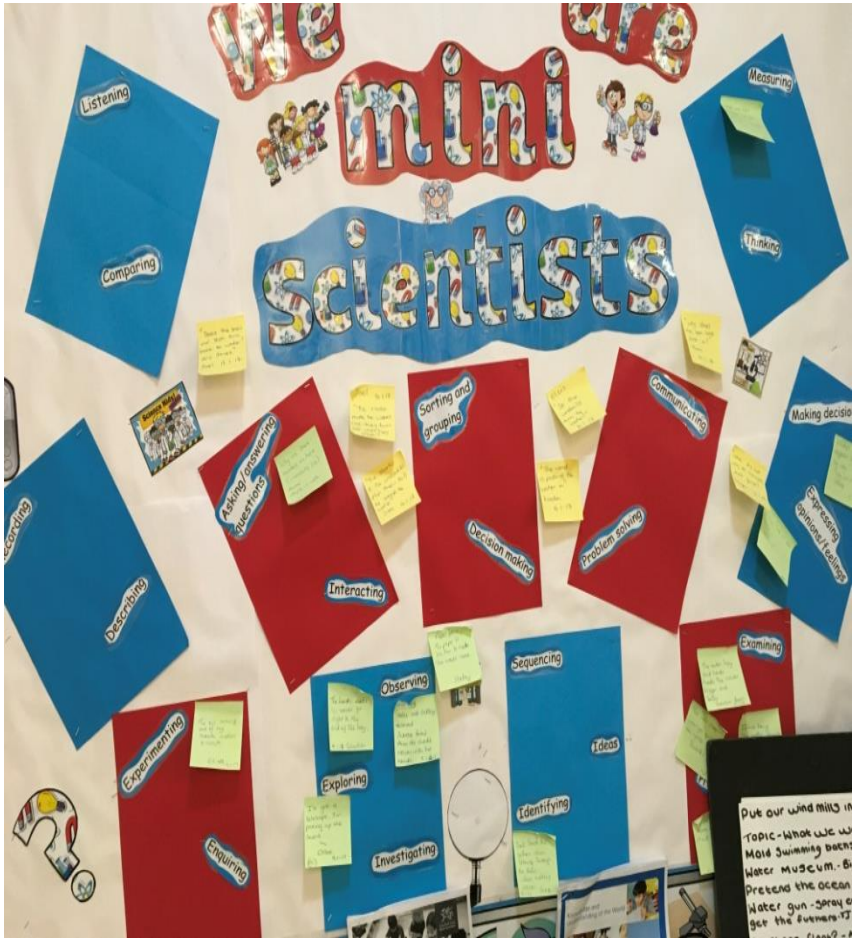

Flight
Butterflys
how do they fly?
why do they fly?
why do they have colorful wings?
what was the first butterfly in the world?
why do they have symetrical wings?
who invented butterflys?
Dragons
Why do they fly?
why do the breath fire?
why do they fly?
how do they fly?
why do dragons have scal
who invented scales?
what was the first Drag
why do they have scary eye
Unicorns
why do they have wings?
why are they magical?
how do they fly?
why do they have horns?
what was 1st unicorn?
Birds
Why do they fly?
why do they have feathers?
how do they fly?
why do they have wings?
What helps birds fly?
how do they have beaks?
what was the first bird?
Flying carpet
why do they fly?
how do they fly?
what country did flying carpets come from?
who invented carpets flying?
why are they magical?
who was the first person to stand on one?


Possible questions to investigate
• How do different flying objects fly?
• How many different owls are there?
• Who made the first hot air balloon?
• Why do butterflies have symmetrical wings?
• Do all dragons breathe fire?
• Do all planes have different engines?
• Who made the first flying carpet?


How does a bird fly? (Initial ideas)
Starting Ideas
By strongly flapping their wings up and down.
The hollow wings what make it lighter
By flapping their wings up and down.
By flapping their wings at a fast speed.
By their Flappy muscles on their wings
Something in the bird's body or Feathers.
Flapping its wings
By flapping their wings.
Flapping wings
Flappy WINGS
By having a good wing span by the
By flapping its wing's Rapidly.
By flapping Rapidly.
Flapping wings to eject.
By flapping its wings
By flapping its wings really quickly.
By flapping wings and the feathers.
By flapping their wings.
The feathers put pressure on the air and makes them glide.
By using its back wing to raise and its wings be two.

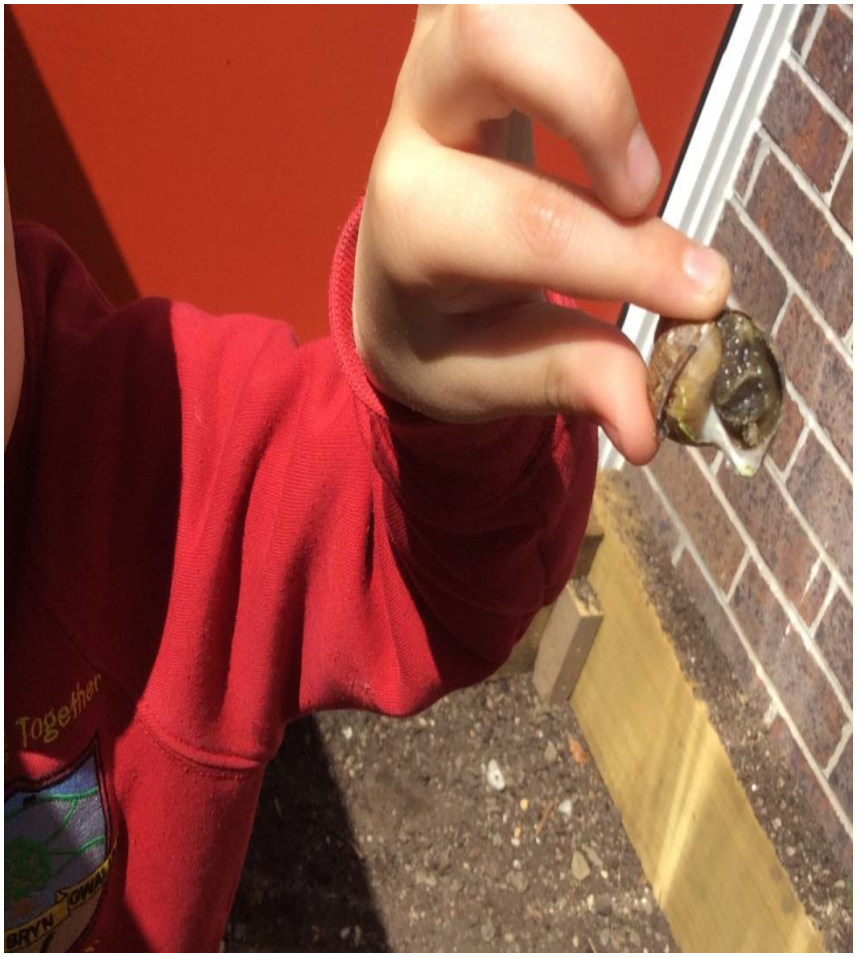

Star of the Week


We posted our letters to the Queen and Prime Minister.
Stop Animals Becoming Extinct?
Our Question
God Made The World

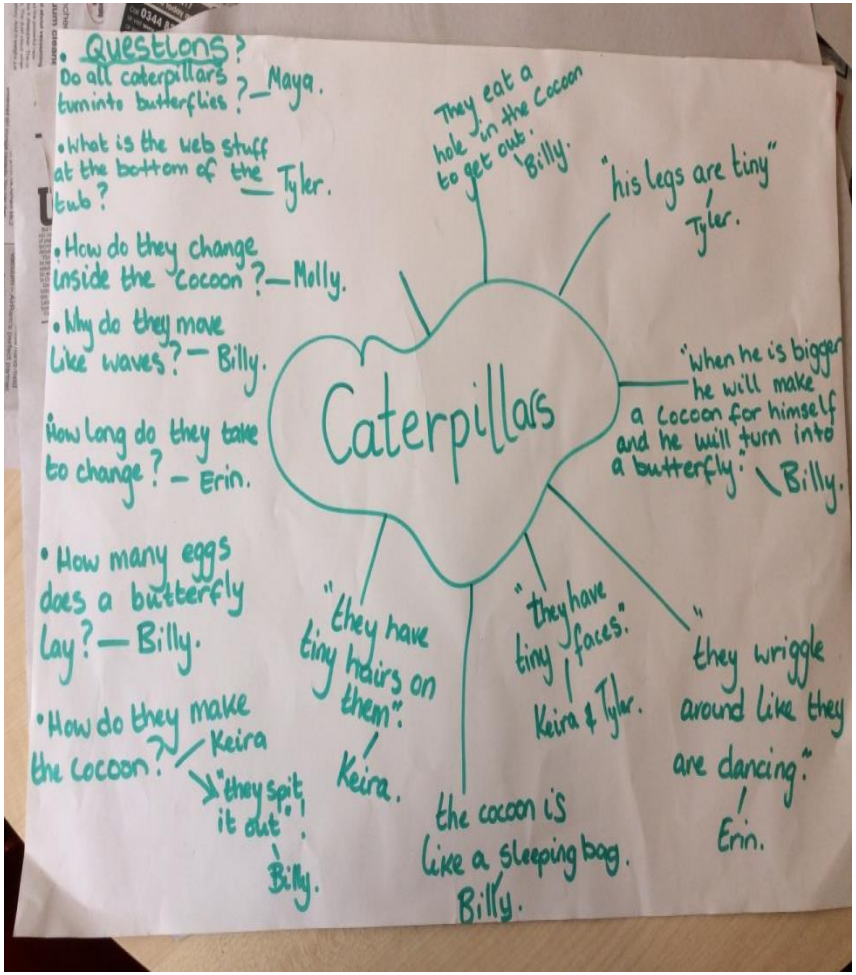

We are mini scientists
Listening
Comparing
Measuring
Thinking
Describing
Asking/answering questions
Interacting
Sorting and grouping
Decision making
Communicating
Problem solving
Making decisions
Expressing opinions/feelings
Experimenting
Enquiring
Observing
Exploring
Investigating
Sequencing
Ideas
Identifying
Examining


Our Question
Big question.
How do waves come?
Molly
The wind makes them.
Oakley
The water fills up and pushes the water up.
Molly
The ground moves underneath and pushes the waves up.
Hollie
Use our hands and fingers to push the water to make waves.
Make paper fans and fan the water
Hypothesis
What do we know?
What do we think will happen?
We think waves do come from wind on the top of the sea.
What causes the waves to come with the tides?
Let's make waves using different things.
blow through straws
use metal tins as fans
Let's be scientists
Plan and investigate
We can make waves on the water. We made waves with our hands, paper fans and metal fans (baking trays).
We have found out that wind does cause waves?
Visit to seaside planned on Autumn to look at the waves Nursery + Reception.
We think that the waves could be made by the 'windmills' in the sea.
We have made windmills. How will we test them?
Waves in Prestatyn are not made with hands, paper fans or electric fans.
What does our evidence tell us?
We made models to show


Sunflower
Spread


Together

Best Before End
Help us raise £100,000 for Macmillan
WE ARE MACMILLAN CANCER SUPPORT


Questions?
Do all caterpillars turn into butterflies? — Maya.
• What is the web stuff at the bottom of the tub? — Tyler.
• How do they change inside the cocoon? — Molly.
• Why do they move like waves? — Billy.
How long do they take to change? — Erin.
• How many eggs does a butterfly lay? — Billy.
• How do they make the cocoon? — Keira
"they spit it out". Billy.
Caterpillars
They eat a hole in the cocoon to get out. Billy.
"his legs are tiny" Tyler.
"When he is bigger he will make a cocoon for himself and he will turn into a butterfly." Billy.
"they have tiny hairs on them". Keira.
"they have tiny faces." Keira & Tyler.
"they wriggle around like they are dancing." Erin.
the cocoon is like a sleeping bag. Billy.


BRYN GWALIA


MAX


MAX

Mummy and Daddy

My baby brother Stanley

ng board

WATER