

Designing and Refining the Curriculum



Lydia Cartwright
23rd May 2024

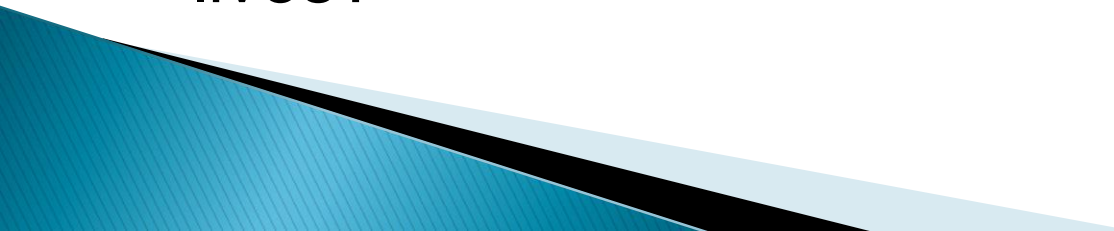
Our journey...

- ▶ The content of the curriculum – ambitious, coherently sequenced, inclusive
- ▶ Life experiences – bringing learning to life
- ▶ Philosophy of learning – long-term memory
- ▶ Strong PSHE, SMSC and British Values



A schema that offers breadth and balance...

As a staff, we spent staff meeting time focussing on the following areas:

- ▶ What is the big picture? How are you going to ensure concepts are securely embedded into children's long-term memory?
 - ▶ Why is it important for children to know about these subjects?
 - ▶ How are they building on cultural capital?
 - ▶ How are these subjects adding to our children's lives?
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An example...

History Overview						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Nursery	Children bring in photos of stages of their life.	Bonfire night Remembrance day	Old and new nursery rhymes/games— invite grandparent in to share	What can we do now that we couldn't before? Changes over time	Old and new toys linked to Literacy stories Making comparisons	The King linked to literacy stories
Reception	Old and New—baby photo, toys, bikes, cars, trains. Peepo, Milly-Molly-Mandy stories Old and new	5th November—bonfire night 11th November—Remembrance day—Poppy painting	Old and new Homes (Milly, Molly, Mandy stories)	Castles	Child Initiated continuous planning What they can do now that they couldn't do before Non-fiction books, old and new	
KSI Themes: Great and Ghastly Events, Significant people						
Year 1		Significant people: History - Explorers Neil Armstrong, Christopher Columbus		Great and Ghastly events: The Great Fire of London		Significant people: Queen Elizabeth II— Family Comparison
Year 2		Great and Ghastly events: The Gunpowder Plot		Life and times of a Victorian Child,		Great and Ghastly events: Titanic
LKS2 Themes: Conflict, local history, Achievements						
Year 3	Conflict: Stone/ Bronze/Iron Age		Achievements Stone/ Bronze/Iron Age		Local history: Industrial Revolution	
Year 4		Conflict: British Armed Forces WW1 to present day		Achievements: African Kingdoms		Local history: Romans
UKS2 Themes: Conflict, Cracking ideas, Achievements						
Year 5	Achievements: Ancient Egypt		Local history: How has Priorities changed over time?		Conflict: Anglo Saxons	
Year 6		Cracking ideas: Engruity—How great inventions and innovations from 19th—1945 era and still used today		Conflict: Vikings		Achievements: Ancient Greece

Key stage 1	
Great and ghastly events	
Significant people	

Key stage 2	
Conflict	
Achievements	
Local history	
Cracking ideas	

An example...

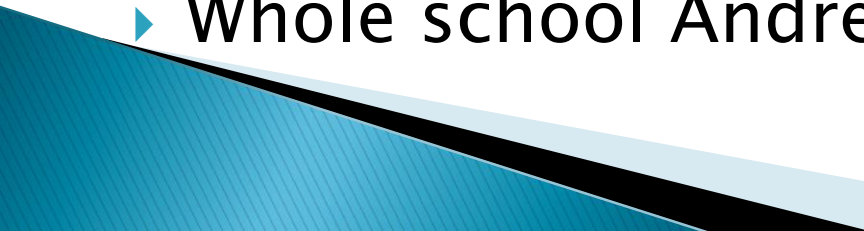
Concept	EYFS	Y1	Y2	Y3	Y4	Y5	Y6
Achievement	Castles Old and new toys Changes over time Old and new nursery rhymes	Queen Elizabeth Great Fire of London Explorers	The Gunpowder Plot Victorian child Titanic	Stone/Bronze/ Iron Age Industrial revolution	Romans African Kingdoms	Ancient Egypt	Cracking Ideas Ancient Greece
Agriculture		Explorers		Stone/Bronze/ Iron Age Industrial revolution		Local history Anglo-Saxons Ancient Egypt	Ancient Greece Vikings
Conflict	Remembrance Castles		Gunpowder plot	Stone/Bronze/ Iron Age	Romans British Armed	Ancient Egypt Anglo-Saxons	Vikings Ancient Greece

				Monarchy	Castles Bonfire night The King	Queen Elizabeth Great Fire of London	The Gunpowder Plot Victorian child	Stone/Bronze/ Iron Age	Romans British Armed Forces	Anglo-Saxon	Vikings Ancient Greece
Democracy false through	Bonfire night	Queen Elizabeth	The Gu	Nation		Queen Elizabeth Explorers	The Gunpowder Plot	Industrial revolution	British Armed Forces African Kingdoms	Ancient Egypt Anglo Saxons	Crackling Ideas Ancient Greece Vikings
Empire		Queen Elizabeth	Titanic	Parliament	Bonfire night	Queen Elizabeth Great Fire of London	The Gunpowder Plot		British Armed Forces		Crackling Ideas Ancient Greece
Invasion	Castles Remembrance			Settlement		Explorers		Stone/Bronze/ Iron Age Industrial revolution	Romans African Kingdoms	Anglo-Saxon	Vikings
				Law	Bonfire night	Queen Elizabeth	The Gunpowder Plot Victorian child		Romans British Armed Forces	Local history Anglo-Saxons	Ancient Greece
				Migration			Titanic		Romans	Anglo-Saxons	Vikings

An example...

Concept: Conflict	
N	Remembrance — 2 sides disagree and fight
YR	Remembrance - 2 sides disagree and fight Castles
YI	
Y2	Gun powder plot Knowing that the impact of conflict can be due to different factors e.g. religion, class and that the events of the conflict can still be remembered today That if the winners of the conflict were different then life could be different today
Y3	Stone Age-Iron Age
Y4	Romans British Armed Forces African Kingdoms
Y5	Anglo-Saxon
Y6	Vikings Ancient Greece Cracking Ideas The effects of conflict on the world, the legacy of conflict and how it has impacted the world we live in today The impact of the Viking invasion on our country The impact of conflict on technology and how conflict forced advances

Knowledge before skills

- ▶ Substantive knowledge vs disciplinary knowledge
 - ▶ Looked at research – traditional knowledge-based curriculum – Young (Powerful knowledge)
 - ▶ Attended conferences – ResearchEd, Mary Myatt
 - ▶ Whole school Andrew Percival training
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Progression

- ▶ Progression in knowledge and skills documents developed in every subject across the curriculum



Geography Knowledge and Skills
Overview

Redhill Primary Academy
Updated March 2024

"A high-quality geography education should inspire in pupils a curiosity and fascination about the world and its people that will remain with them for the rest of their lives."

Unit Overviews

Reception Autumn Term	History—Old and New— ourselves and transport
ELG	Substantive Knowledge and Vocabulary
Early learning goal— Understanding the world, people and communities	<p>I know how I have changed from when I was a baby</p> <p>I know that people change as they get older (how they look and the things they do)</p> <p>I know some different modes of transport.</p> <p>I know some of the features of the modes of transport.</p> <p>I know the differences between transport now and in the past.</p> <p>I know how transport has changes over time e.g bike and penny farthing.</p> <p>I know some different items of clothing</p> <p>I know how clothing has changed over time.</p> <p>I know that toys have changed over time.</p> <p>I know the difference between old and new toys</p> <p>Key chronological knowledge:</p> <p>I know that a penny farthing was made over 150 years ago.</p> <p>I know that the steam engine was made over 300 years ago.</p> <p>I know that children are the youngest, then parents, then grandparents.</p>

	<p>Disciplinary Knowledge</p> <ul style="list-style-type: none"> • Talk about the lives of the people around them and their roles in society; • Know some similarities and differences between things in the past and now, drawing on their experiences and what has been read in class; - • Understand the past through settings, characters and events encountered in books read in class and storytelling
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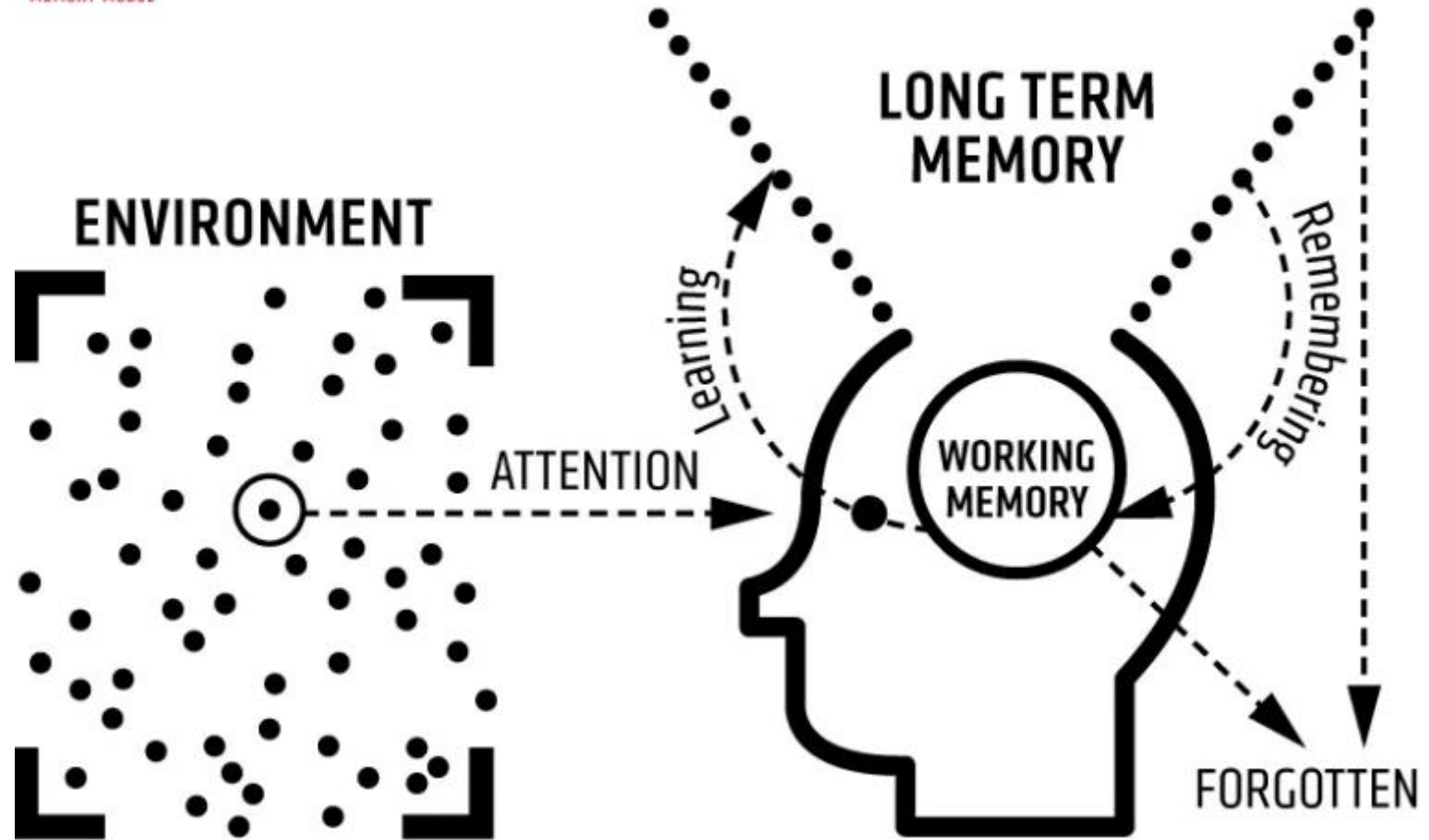
Geography Unit Overview							
Year 3 Summer 2	Energy and Sustainability						
Key Concepts	Place	Space	Scale	Interconnection	Environment (physical and human processes)	Environmental impact and sustainability	Cultural awareness and diversity
Sequence	Prior Learning Y2– World knowledge				What comes next? Year 6– Natural Resources		

Substantive Knowledge and Vocabulary
I know what the term sustainability means.
I know what the term energy means.
I know what the term environment means.
I know that resources are things that are used by countries to support themselves
I know that there are different sources of energy— fossil fuels, renewable energy
I know that sustainability is connected to how we use resources available to us.
I know different ways of producing energy.
I know how fossil fuels are extracted and the damage this can cause.
I know different types of renewable energy— Solar energy, Wind energy, Hydro energy, Tidal energy, Geothermal energy, Biomass energy
I know that there is a German city called Freiburg and it is trying to become a sustainable city
I know some of the ways Freiburg are encouraging their citizens to become more sustainable— financial rewards for waste composting, reusable nappies, solar powered football stadium.
I know that Telford is working to become more sustainable.
I know that a solar farm was completed in 2014 to provide power for more than 800 homes.
I know that Telford used to have a power plant but that this was closed due to reaching EU environmental regulations.

Disciplinary Knowledge
I can locate environmentally friendly features on a map of Telford.
I can use 4 figure grid references to locate features on a map
I can recognise features on a OS map
I can produce a sketch map of environmentally friendly features in Telford.

CPD on embedding knowledge

WILLINGHAM'S SIMPLE
MEMORY MODEL



Enhancing our teaching and learning

All staff bought their own copy.

A year of CPD through staff meetings embedding and ensuring consistency in approach.

THE PRINCIPLES OF INSTRUCTION

TAKEN FROM THE INTERNATIONAL ACADEMY OF EDUCATION

This poster is from the work of Barak Rosenshine who based these ten principles of instruction and suggested classroom practices on:

- research on how the brain acquires and uses new information
- research on the classroom practices of those teachers whose students show the highest gains
- findings from studies that taught learning strategies to students.

HOW²
teachhow2s.com

01 DAILY REVIEW
MO TU WE TH FR
Daily review is an important component of instruction. It helps strengthen the connections of the material learned. Automatic recall frees working memory for problem solving and creativity.

02 NEW MATERIAL IN SMALL STEPS
Our working memory is small, only handling a few bits of information at once. Avoid its overload — present new material in small steps and proceed only when first steps are mastered.

03 ASK QUESTIONS
The most successful teachers spend more than half the class time lecturing, demonstrating and asking questions. Questions allow the teacher to determine how well the material is learned.

04 PROVIDE MODELS
Students need cognitive support to help them learn how to solve problems. Modelling, worked examples and teacher thinking out loud help clarify the specific steps involved.

05 GUIDE STUDENT PRACTICE
Students need additional time to rephrase, elaborate and summarise new material in order to store it in their long-term memory. More successful teachers built in more time for this.

06 CHECK STUDENT UNDERSTANDING
Less successful teachers merely ask "Are there any questions?" No questions are taken to mean no problems. False. By contrast, more successful teachers check on all students.

07 OBTAIN HIGH SUCCESS RATE
A success rate of around 80% has been found to be optimal, showing students are learning and also being challenged. Better teachers taught in small steps followed by practice.

08 SCAFFOLDS FOR DIFFICULT TASKS
Scaffolds are temporary supports to assist learning. They can include modelling, teacher thinking aloud, cue cards and checklists. Scaffolds are part of cognitive apprenticeship.

09 INDEPENDENT PRACTICE
Independent practice produces 'overlearning' — a necessary process for new material to be recalled automatically. This ensures no overloading of students' working memory.

10 WEEKLY & MONTHLY REVIEW
The effort involved in recalling recently-learned material embeds it in long-term memory. And the more this happens, the easier it is to connect new material to such prior knowledge.

Assessment

Last Lesson	Last Week	Last Year
Represent 27 using dienes	Double 6 is ___ Double 4 is ___ Double 1 is ___	2, 4, 6, ___ 4, ___ 8, 10, 12, ___

Retrieval practice

What can you remember from last year?

Which is the correct spelling?

- a) couple
- b) cuple
- c) coupel

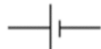
Can you think of 3 words with the 'ou' diagraph?

Which is the correct spelling?

- a) ruff
- b) rough
- c) rugh

Quick Quiz

What is each symbol representing?



What is the symbol for ... ?

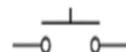
A bulb



A battery



An open switch



A wire

AFL: Mark my test

Question	Answer	Mark
What is an alliance?	Two sides that are fighting against each other.	X Two or more sides that are fighting
What is the collective name of the Army, Navy and Royal Air Force?	British Armed Forces	✓ 1/1 ✓
Can you name any other groups that invaded Britain?	The Stone Age	X Romans ✓
What does the crown represent on the British Armed forces emblem? Explain why this is here.	The Queen	X 1/2 The queen (sovereign) because the British armed forces serve her. ✓
Who's death lead to the start of WWI?	The Prince of Austria-Hungary	X 1/2 The prince of Austria-Hungary, Archduke Franz Ferdinand ✓
What is conscription?	The rationing of food during the war.	X 0/1 Came out in 1916 - when all men aged 18-41 had to go to war. ✓
When did WWI start and end?	1914 - 1919	X 0/1 4 years 1914 - 1918 ✓

Assessment

AFL Activity

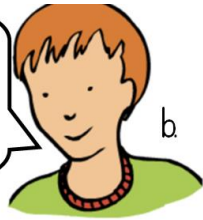
Circle the leader of the Gunpowder Plot?



South America must be very hot because on Earth the further south you go, the hotter it gets.



South America is one of the biggest countries in the world.

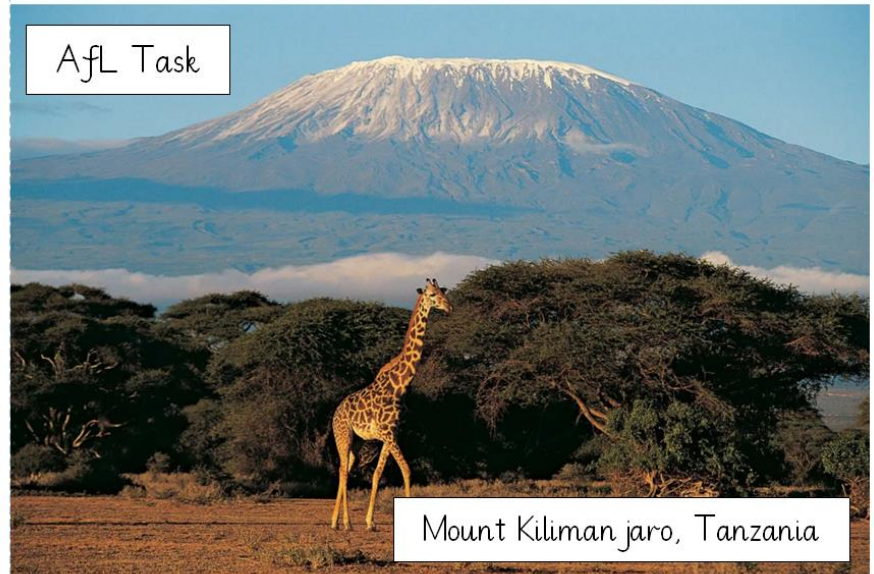


We went on holiday to Florida which is in South America.



What do you think?

AfL Task



Mount Kilimanjaro, Tanzania

Task: explain what this remarkable picture tells us about climate.

Assessment

Science Knowledge Quiz	
Topic: Light	Year Group: 6

Q1: How does light travel?	Start of unit	End of unit
Through a medium.		
In waves.		
In straight lines.		
Through the air.		

Q2: What happens when you shine a light at a mirror?	Start of unit	End of unit
The light refracts.		
The light reflects.		
The light turns.		
The light flips.		

Q3: An object can be seen by ..	Start of unit	End of unit
using the light within our eyes to illuminate the object.		
reflecting light from a light source into the eye.		
absorbing the light around it to make it visible.		

Q4: Shadows are created when...	Start of unit	End of unit
Shiny objects reflect light.		
An object blocks light.		
Only at night time.		
When an object cannot reflect light.		

Q6: What is refraction?	Start of unit	End of unit
When light passes through transparent objects and changes direction.		
When light hits an opaque object and casts a shadow.		
When light is separated to show the different colours of the spectrum.		
When you look through a coloured filter and the object appears a different colour.		

Q7: Who discovered made up of different
Thomas Edison
Isaac Newton
Charles Darwin
Benjamin Franklin

Q8: Why does light into different colour shine through a prism
Because colours have wavelengths.
Because light travels different speeds
Because the light illuminates colours inside the prism
Because the pupil controls amount of light that enters the eye.

Science Vocabulary Quiz Topic – Light

Vocabulary	Red	Orange	Green	Definition
angle				
concave				
convex				
dim				
dispersion				
emits				
light				
opaque				

Resources to support learning



Resources to support learning

Redhill Primary Academy—Knowledge Organiser



Key Knowledge—What do I need to know by the end of this topic?

If animals can produce young, the species will survive.

Animals are adapted to survive and produce offspring. They are adapted to avoid predators e.g. camouflage, use of warning colours in insects, spines on plants.

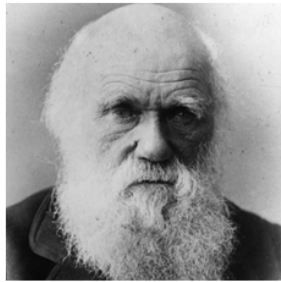
Variation in offspring over time can make animals more or less able to survive in particular environments and lead to evolutionary change.

Fossils help us to learn about animals from the past and provide evidence for evolution.

Selective breeding occurs when characteristics have been chosen to improve crops and to develop selected traits in animals.



Science : Year 6 Evolution and Inheritance



Charles Darwin is a famous scientist who is known for his theory of evolution by natural selection. According to this theory, all living things are struggling to survive. The living things that have the most helpful traits for their environment tend to survive. These living things then pass along their helpful traits to their young.

Key Vocabulary—What words do I need to be able to use within my scientific writing?

variation	the differences between individuals within a species
natural selection	the process of plants and animals adapting to their environment
adaptation	a change that comes about by natural selection
evolution	the change in the inherited traits of a population over time
inherited	passed on by a parent or ancestor



Redhill Primary Academy—Knowledge Organiser



History: The Great Fire of London

Key people—Who do I need to know about by the end of this topic?

Samuel Pepys

Born: 23 February 1633

Died: 26th May 1703



King Charles II



Thomas Farriner—Baker



Key Places—Where are the key places in the Great Fire of London?

Bakery on Pudding Lane



The River Thames



London Bridge



Bethnal Green



Enrichment at Redhill

- A curriculum that builds on what they understand and know already.
- Opportunities for new experiences.
- Embody diversity and offer insight to the wider world.
- Opportunities to contribute to school life through joining an array of pupil voice groups.
- Daily collective worship and assemblies.
- Trips to the local park, shops and visits to places of worship, museums, sports and music venues; three residential trips completed in Year 2, Year 4 and Year 6; regular opportunities to use our forest school and Grove Garden.



NATIONAL CURRICULUM 2014

“The national curriculum provides pupils with an introduction to the **essential knowledge** that they need to be educated citizens. It introduces pupils to **the best that has been thought and said**; and helps engender an appreciation of human creativity and achievement.”

Enrichment at Redhill

- Autumn term 1 – British Values Week
- Autumn term 2 – Friendship Week (to coincide with Anti-Bullying Week)
- Spring 1 – E-Safety Week
- Spring 2 – Healthy Lifestyles Week
- Summer 1 – Careers and Aspirations Week



Healthy Lifestyles



Enrichment at Redhill

We have lots of different after school clubs available:

- Sports clubs - football, multi sports, netball, cheerleading, dodgeball, tennis and basketball
- Performing arts clubs – dance, musical theatre, choir
- Hobbies – arts and crafts, cooking, board games
- Forest school, bushcraft and survival
- STEM club
- Modern foreign languages clubs

Musical opportunities:

- Music lessons – drums, keyboard, violin
- Perform in assemblies
- Specialist musicians deliver lessons
- Theatre trips
- Redhill's Got Talent



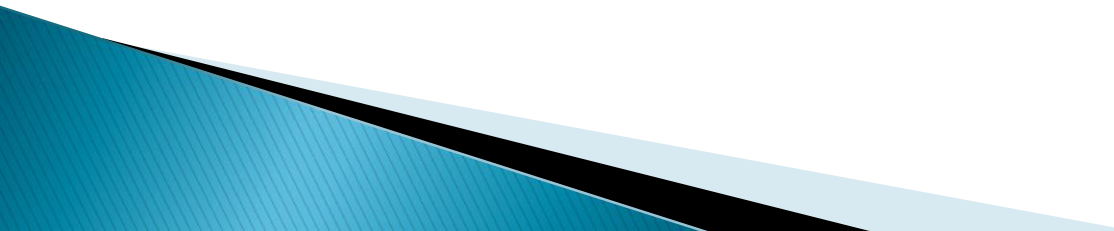
Developing the whole child

- At the heart of the curriculum.
- Children develop a strong sense of moral purpose.
- Respect and understanding of people who have different characteristics to themselves.
- A rigorous, well-planned curriculum.
- Driven by our six half-termly values: respect, friendship, responsibility, empathy, honesty and independence, which were chosen by both children and staff.
- Children and staff embody these values at Redhill.



How do we assess impact?

Remembering Alexander's definition '*Curriculum: what is intended to be taught and learned overall (the planned curriculum); what is taught (the curriculum as enacted); what is learned (the curriculum as experienced).*'

- Pupil voice
 - Work scrutiny
 - Lesson visits
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- ▶ Pupils love learning at Redhill Primary Academy.
- ▶ Pupils, including those with special educational needs and/or disabilities (SEND), learn consistently well.
- ▶ Pupils are inspired by their experiences at school and demonstrate positive attitudes towards learning. They are curious and enthusiastic learners.
- ▶ Trips, including residential visits...greatly enrich the curriculum.
- ▶ Leaders have planned a broad and ambitious curriculum that builds pupils' academic knowledge over time.
- ▶ High-quality development of pupils' personal qualities is a distinctive feature of the school.
- ▶ Pupils are inspired by their experiences at school and demonstrate positive attitudes towards learning.

Ofsted Inspection December 2022