

Dear Parents,

Over the next term we will be following a unit of work on a theme that focuses on 'Where do I come from?'. During this unit we will be focusing on Science, Technology and Global.

Children will be reading, researching, writing, illustrating, working on their own and working in groups. We will be checking to see how well your child has learned through particular activities and asking children to explain their work, perhaps to you. In addition the children will complete a quiz on the key vocabulary and powerful knowledge. You can see in advance what we will be asking the children (quiz) and what they need to know (knowledge organiser), they are attached in this booklet.

We already know the interest you take in your child's work. If you can, please discuss with your child the work they have done as the term progresses and let them teach you. If your child has some work to research, please help them, but without actually doing the work. If you have the chance to further their interest in the ideas of this theme please take it, but your enthusiasm and interest is most important. By the end of the unit, we hope your child has achieved all of the learning targets. We hope they have had an enjoyable time in the classroom. And we hope you have enjoyed seeing your child work with enthusiasm. If you have any comments or questions about your child's learning, please get in touch.

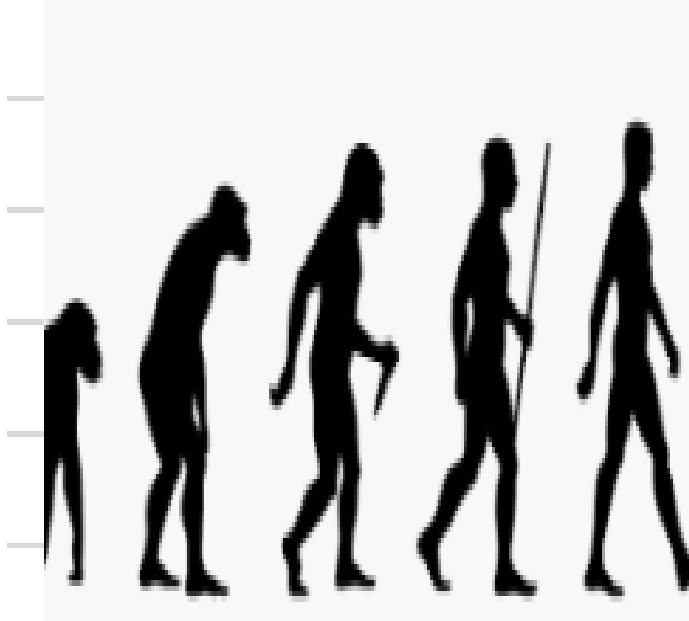
As an introduction to this unit we are asking Junior children to come to school on 9th January dressed as humans or aliens of the future.

In Science, we'll be finding out:

- How life began in the sea then came out of the sea
- How fossils provide information about living things from the past
- Why the dinosaurs died out
- About the classification of plants and animals
- How plants and animals reproduce
- How living things evolve and change over time
- How plants and animals are adapted to their environment
- How adaptation leads to evolution
- Whether there is life on other planets

In Technology, we'll be finding out:

- What foods early humans ate, grew and cooked
- About prehistoric food and cooking techniques



In Global, we'll be finding out:

- How superbugs evolve and spread around the world

Powerful Knowledge

Natural selection is the process where organisms that are best suited to their environment survive and pass on their genetic traits in increasing number to successive generations.

The planets in our solar system were formed around 4.6 billion years ago. Each planet was formed from a circling mass of rocks, metals, ice and gases that were pulled together by gravity as they orbited the Sun.

Life began in the sea 3.8 billion years ago. The sea was warm and shallow enough to allow sunlight to penetrate and photosynthesis to occur. The earliest forms of animal life looked like little round blobs. Then the blobs grew (or evolved) into other shapes.

Human evolution is relatively recent. DNA evidence shows that modern humans (*Homo sapiens*) evolved in Africa 200,000 years ago. Fossil finds and genetic research have shown that we came out of Africa 65,000 years ago and subsequently spread around the world.

By 1842, the naturalist Charles Darwin realised that the similarities between humans and apes were the result of a common ancestry or evolution. He even had a theory to explain it, but his idea was so shocking at the time that he dared not publish it until 17 years later!

All living things depend for their survival on other species – they have a close relationship with the animals they eat and the animals that eat them. This leads to adaptation.

There is considerable variation between populations of the



Taddington and Priestcliffe
Knowledge organiser
Junior Spring half term 1

Overarching theme

Magic, mysteries and discoveries

Inquiry into rights and responsibilities in the struggle to share finite resources with other people and other living things; human-made systems and communities; and the environment, past present and future

Explanation of the theme

Where do I come from?

Life on Earth started nearly 4 billion years ago. It has evolved and changed over the years until now when we have millions of species of animals and plants. As humans, we can use our knowledge to eradicate disease, create clones and maybe even bring extinct creatures back to life. So what does the future hold for us in 10,000 years time?

Key Image 1



Key Vocabulary

DNA

Evolution

Natural Selection

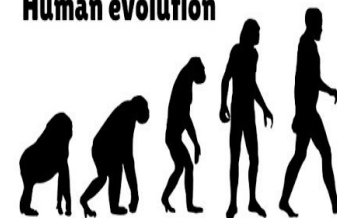
Organisms

Clones

Inheritance

Key Image 2

Human evolution



Curriculum drivers

Enterprise,
Possibilities ✓
Inquiry, ✓
Community ✓



Inheritance and selection

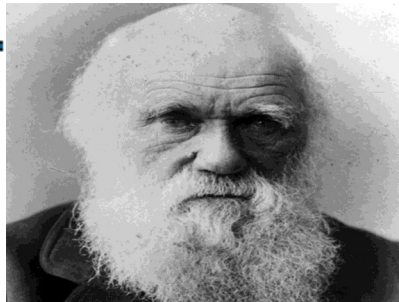


Taddington and
Priestcliffe

What does DNA stand for?



ISELECTIONECISFAEO
TLCITSIRETCARAHCLC
OFSCGECTIINNACAIXC
RUVENACETDPOGHINTD
IACRIAQINEOIRRZTEW
ETOGDAMTLNLTNOOTNA
LEISEIDNNTLAOMOIVH
TOCUEFOONIECIOSHIE
TAIOREISNFNITSIARN
AENUBTKEXIIFAORBOT
CNHNATDNACEIRMNINR
OEEIIIEOTAASEETTMA
GGRTEFSMRTTSNRTAEI
SAINSLNRIIQAEIVTNT
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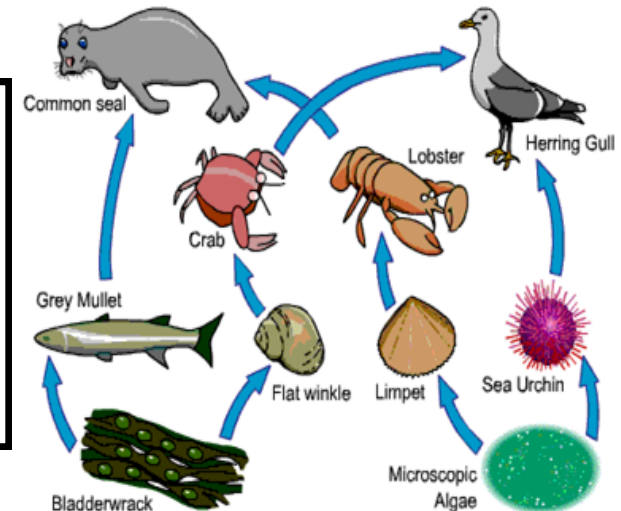


Who is this?

Someone is arrested for a crime after their DNA was tested and they were placed at the scene. After **looking** at the video footage the police realise the person is, in fact, innocent but their DNA is at the crime scene. How is this possible?

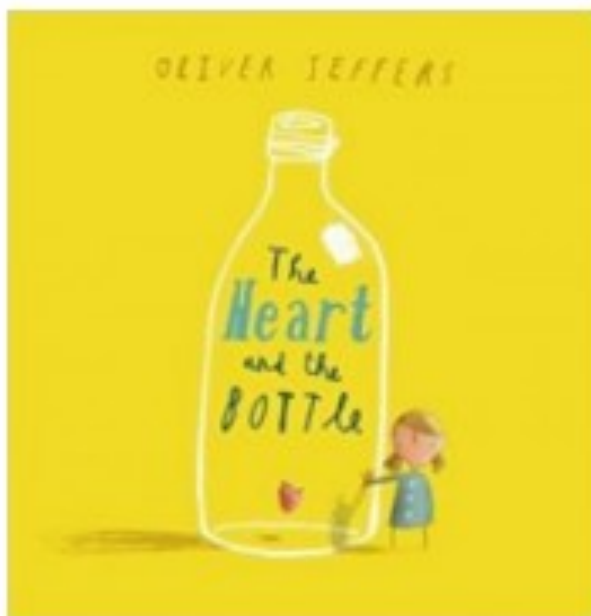
What do you think life on Earth will be like in 10,000 years? Explain your answer with as much evidence as you can.

CLASSIFICATION	WORD LIST	CHARACTERISTIC
IDENTIFICATION	VARIATION	INHERIT
CATTLE	CONTINUOUS	ADAPTATION
ENVIRONMENT	DOG	GENE
CHROMOSOME	HABITAT	TRAIT
GENERATION	DNA	SELECTION
POLLEN	HORMONE	
	BREEDING	



(a) Draw a food chain from this food web

_____ → _____ → _____ → _____



Overarching theme

Magic, mysteries and discoveries

Inquiry into rights and responsibilities in the struggle to share finite resources with other people and other living things; human-made systems and communities; and the environment, past present and future.

Overview and outcomes

It begins with children 'discovering' the setting from the text of the empty armchair and posing questions to make predictions about the text. Children explore the text further, writing character descriptions using a range of descriptive vocabulary. Having explored the sequence of the story for 'The Heart and the Bottle', children then create their own stories where a dilemma occurs and there is an emotional response.

Key sentence type

Emotion, comma

RULE: Emotion first followed by the actions that are caused by the emotion. Putting the word first gives more weight to the emotion.

EXAMPLES:

Desperate, she screamed for help.

Terrified, he froze instantly on the spot where he stood.

Anxious, they began to realise they were lost.



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Knowledge organiser

Literacy Spring term 1

National Curriculum Coverage

Word Reading

- Apply their growing knowledge of root words, prefixes and suffixes (etymology and morphology) as listed in English Appendix 1, both to read aloud and to understand the meaning of new words they meet
- Read further exception words, noting the unusual correspondences between spelling and sound, and where these occur in the word

Reading Comprehension

- Develop positive attitudes to reading and understanding of what they read by:
- reading books that are structured in different ways and reading for different purposes
 - increasing their familiarity with a wide range of books, (including fairy stories, myths and legends) and retelling some of these orally
 - identifying themes and conventions
 - discussing words and phrases that capture the reader's interest and imagination
- Understand what they read, in books they can read independently, by:
- asking questions to improve their understanding of a text
 - drawing inferences such as inferring characters' feelings, thoughts and motives from their actions, and justifying inferences with evidence
 - participating in discussion about both books that are read to them and those they can read for themselves, taking turns and listening to what others say

Writing Transcription (Spelling and Handwriting)

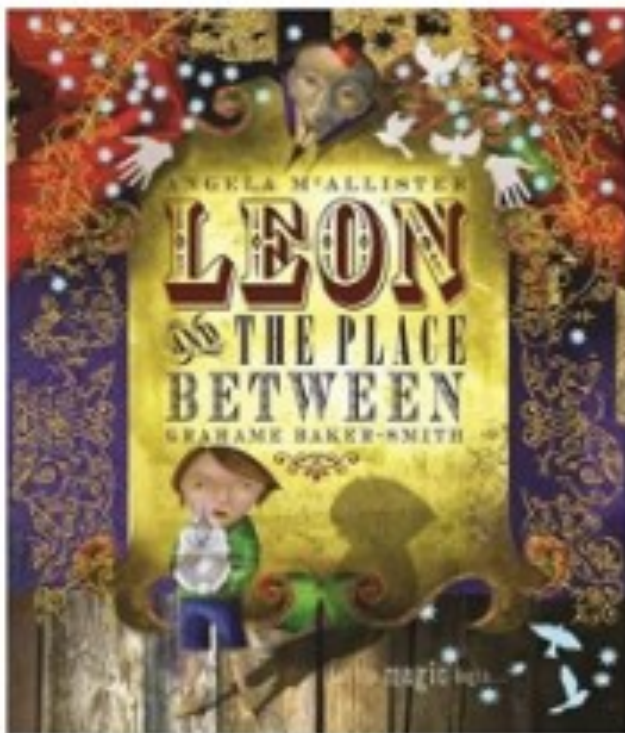
- Know the alternative spelling patterns for 'ear' grapheme
- Understand that adding prefixes to the beginning of a root word can change the meaning
- Identify the spelling pattern for words ending in ous
- Spell words containing the suffix -ness

Writing (Composition)

- Plan their writing by:
- Discussing writing similar to that which they are planning to write in order to understand and learn from its structure, vocabulary and grammar
 - Discussing and recording ideas
- Draft and write by:
- In narratives, creating settings, characters and plot
 - Composing and rehearsing sentences orally (including dialogue), progressively building a varied and rich vocabulary and an increasing range of sentence structures
 - Organising paragraphs around a theme
- Evaluate and Edit by:
- Assessing the effectiveness of their own and others' writing and suggesting improvements

Vocabulary, Grammar & Punctuation

- Use of the present perfect form of verbs instead of the simple past
- Choosing nouns or pronouns appropriately for clarity and cohesion and to avoid repetition
- Word families based on common words, showing how words are related in form and meaning
- Expressing time, place and cause using conjunctions [for example, when, before, after, while, so, because].
- Using commas after fronted adverbials



Key sentence type

With a(n) action, more action

RULE: This two-part sentence starts with a subordinate clause which starts with the phrase 'With a(n)...' followed by an action and a comma. The main clause then describes more action which occurs simultaneously.

EXAMPLES:

With a smile, Greg waved goodbye.

With a weary wail, Thor launched his final attack.

With a deep breath, Neil Armstrong stepped carefully on to the surface of the moon.

Overarching theme

Magic, mysteries and discoveries

Inquiry into rights and responsibilities in the struggle to share finite resources with other people and other living things; human-made systems and communities; and the environment, past present and future.

Overview and outcomes

This unit includes exemplified grammar activities throughout, as well as drama techniques such as thought-tapping and sculptor and sculpted. Visual images and music are also incorporated.

Main outcomes: Narrative (Fantasy),
Recount (Diary Entry) Setting
Descriptions



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Knowledge organiser

Literacy Spring term 1

Year 3 and Year 4

National Curriculum Coverage

Word Reading

- Apply their growing knowledge of root words, prefixes and suffixes (etymology and morphology) as listed in English Appendix 1, both to read aloud and to understand the meaning of new words they meet
- Read further exception words, noting the unusual correspondences between spelling and sound, and where these occur in the word

Reading Comprehension

- Develop positive attitudes to reading and understanding of what they read by:
- Increasing their familiarity with a wide range of books, (including fairy stories, myths and legends) and retelling some of these orally
 - Identifying themes and conventions
 - Discussing words and phrases that capture the reader's interest and imagination

Writing Transcription (Spelling and Handwriting)

- Use the first two or three letters of a word to check its spelling in a dictionary
- Write from memory simple sentences, dictated by the teacher that include words and punctuation taught so far.

Writing (Composition)

- Plan writing by:
- Discussing writing similar to that which they are planning to write in order to understand and learn from its structure, vocabulary and grammar
 - Discussing and recording ideas
- Draft and write by:
- In narratives, creating settings, characters and plot
 - Composing and rehearsing sentences orally (including dialogue), progressively building a varied and rich vocabulary and an increasing range of sentence structures
 - Organising paragraphs around a theme
- Evaluate and edit by:
- Proposing changes to grammar and vocabulary to improve consistency, including the accurate use of pronouns in sentences

Vocabulary, Grammar & Punctuation

- Appropriate choice of pronoun or noun within and across sentences to aid cohesion and avoid repetition
- Expressing time, place and cause using conjunctions [for example, when, before, after, while, so, because], adverbs [for example, then, next, soon, therefore], or prepositions [for example, before, after, during, in, because of]
- Fronted adverbials [for example, Later that day, I heard the bad news.]
- Use of commas after fronted adverbials
- Noun phrases expanded by the addition of modifying adjectives, nouns and preposition phrases (e.g. the teacher expanded to: the strict maths teacher with curly hair)

Unit 4 Multiplication and division 1



In this unit we will ...

- ⚡ Recognise when groups are equal and when they are not
- ⚡ Learn the 3, 4 and 8 times-tables
- ⚡ Find a simple remainder when a number is divided
- ⚡ Use a bar model to solve multiplication and division problems

In Year 2, we recognised when groups were equal and unequal.



Equal groups



Unequal groups



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We will need some maths words. How many of these have you used before?

equal	multiply	divide
times-tables	sharing	grouping
array	bar model	remainder
repeated addition	multiplication sentence	
division statement	division facts	

You need to know that an array can tell you two different multiplication facts.



5 groups of 2
 $5 \times 2 = 10$



2 groups of 5
 $2 \times 5 = 10$



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Knowledge organiser

Year 3 Maths Spring term 1

Unit 5 Multiplication and division 2



In this unit we will ...

- ⚡ Compare multiplication and division statements using inequality signs
- ⚡ Use known multiplication facts to solve other multiplication problems
- ⚡ Find multiplication and division fact families
- ⚡ Learn to multiply and divide by partitioning
- ⚡ Solve mixed multiplication and division problems including multi-step problems

Do you remember what this is called? We will use it to help partition numbers.



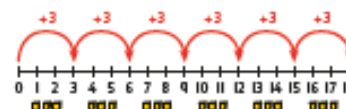
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We will need some maths words. Do you know what they all mean?

multiplication	division	statement
number sentence	compare	more than
less than (<)	greater than (>)	equal (=)
equally	least	most
share	partition	multi-step

We need to use number lines too. These will help us understand multiplication and division.



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Unit 5 Multiplication and division 1



In this unit we will ...

- ⚡ Multiply by and divide multiples of 10 and 100
- ⚡ Multiply and divide by 0 and 1
- ⚡ Learn all of our times-tables from 1 to 12
- ⚡ Understand related multiplication and division facts
- ⚡ Find solutions to multiplication and division word problems

Do you remember what this is called? Use it to find 2×7 or 7×2 .

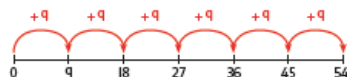


We will need some maths words. Are any of these new?

multiply (\times)	divide (\div)
multiplication fact	division fact
lots of	groups of
	times-table
	array

We need to use the number line too! Use it to support your counting in groups.

$$6 \times 9 = 54$$



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Knowledge organiser

Year 4 Maths Spring term 1

Unit 6 Multiplication and division 2



In this unit we will ...

- ⚡ Learn how to multiply a number using the written method
- ⚡ Learn how to multiply and divide numbers in our heads
- ⚡ Find the remainder when a number is divided
- ⚡ Use bar models and part-whole models to solve multiplication and division problems

We have already learnt the times-tables facts. Can you use the facts to work out how many chocolates I have? Is there a quicker way?



We will need some maths words. How many of these have you used before?

multiply	divide	times-tables
partition	array	bar model
part-whole model	remainder	
factor pair	factors	commutative

We need to know how to use a part-whole model to multiply or divide. First, we need to know how to partition a number. Is there another way to partition 36?

$$36 = 30 + 6$$



$$36 = 20 + 16$$

