

Year 4 Maths Knowledge Organiser – Autumn 1



Key Vocabulary
place value
rounding
digit
sequence
addition
subtraction
operation
total
exchange
amount

Represent 4-Digit Numbers

3487

three thousand, four hundred and eighty-seven

1000s	100s	10s	1s

Thousands	Hundreds	Tens	Ones

Roman Numerals	
I = 1	X = 10
II = 2	XX = 20
III = 3	XXX = 30
IV = 4	XL = 40
V = 5	L = 50
VI = 6	LX = 60
VII = 7	LXX = 70
VIII = 8	LXXX = 80
IX = 9	XC = 90
X = 10	C = 100

Using Inverse

3476	
2732	744

$3476 - 744 = 2732$ can be checked using $2732 + 744 = 3476$

This part whole shows the inverse calculations using these three numbers.

$1549 + 2688 = 4237$	$2688 + 1549 = 4237$
$4237 - 1549 = 2688$	$4237 - 2688 = 1549$

Comparing

greater than				less than
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Rounding

Round to the nearest 10

22 is 2 more than 20.
22 is 8 less than 30.
22 is closest to 20.
22 rounded to the nearest 10 is 20.

Round to the nearest 100

470 is 70 more than 400.
470 is 30 less than 500.
470 is closest to 500.
470 rounded to the nearest 100 is 500.

Add 4-Digit Numbers

No exchange

$$\begin{array}{r} 5162 \\ + 3427 \\ \hline 8589 \end{array}$$

Starting with the ones, add each column in turn.

One exchange

$$\begin{array}{r} 5162 \\ + 3497 \\ \hline 8659 \\ 1 \end{array}$$

Starting with the ones, add each column in turn. When adding 6 tens + 9 tens = 15 tens = 1 hundred + 5 tens. Place 1 hundred under the hundreds answer and 5 tens in the answer.

Multiple exchanges

$$\begin{array}{r} 5864 \\ + 3497 \\ \hline 9361 \\ 111 \end{array}$$

Starting with the ones, add each column in turn. Exchange tens, hundreds and/ or thousands as required.

Subtract 4-Digit Numbers

No exchange

$$\begin{array}{r} 5789 \\ - 3421 \\ \hline 2368 \end{array}$$

Starting with the ones, subtract each column in turn.

One exchange

$$\begin{array}{r} 61 \\ 5789 \\ - 3471 \\ \hline 2278 \end{array}$$

Starting with the ones, subtract each column in turn. When subtracting 4 tens – 7 tens, exchange 1 hundred to make: 14 tens – 7 tens = 7 tens.

Multiple exchanges

$$\begin{array}{r} 6131 \\ 5742 \\ - 3476 \\ \hline 2266 \end{array}$$

Starting with the ones, subtract each column in turn. Exchange tens, hundreds and/ or thousands as required.

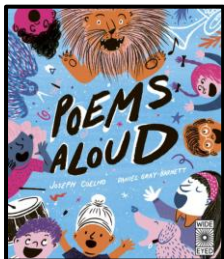


Year 4 English Knowledge Organiser – Autumn 1

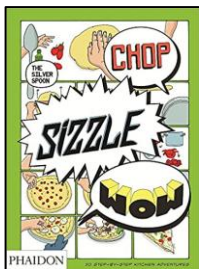


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Core Texts



Poems Aloud
Joseph Coelho



Chop, Sizzle, Wow
Tara Stevens



The Building Boy
Ross Montgomery

Features of Text Type: Poetry

Rhyme – some poems, including this one, use rhyme to contribute to rhythm and to engage the listener. This poem is using an experimental rhyme scheme (*the first and third line of the first verse rhyme, and the second and fourth line of the second verse rhyme*).

Punctuation – end of line punctuation can be used to support rhythm and performance and to contribute to meaning.

Structure – lines of poetry are usually structured into verses or stanzas. Each line in poetry often starts with a capital letter.

Language – in poetry, vocabulary is carefully selected to create imagery and for maximum impact on the audience. Poetic language devices can be used to intensify meaning, mood and rhythm. This poem, for example, employs alliteration and repetition (*red robots*).

Features of Text Type: Instructions

Any relevant preparatory directions or equipment/ingredients are listed at the start of the text.

Directions are explained sequentially, in chronological order in the form of **commands**, using imperative verbs.

Nouns, expanded with adjectives, nouns and prepositional phrases, provide specific detail for clarity.

A range of simple organisational devices such as headings, images and the use of boxes to separate each step, help to organise the information for the reader.

Conjunctions, adverbs and prepositions are used to express time, place and cause, sequencing material, linking ideas and providing detail.

Features of Text Type: Developing Description

Picture books such as this are an excellent example of how pictures and words can be combined to **entertain** the reader. A deeper understanding of the text is formed through a dual reading and interpretation of the words and pictures together.

As with most narrative, this story is made up of action, description, and dialogue (demarcated with inverted commas).

The narrative is told from a third person viewpoint, using past tense verb forms.

Conjunctions, adverbs and prepositions are used to add detail about time and place and to build cohesion for the reader.



Year 4 Science Knowledge Organiser – Autumn 1



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Key Vocabulary	
biodiversity	all the different living things in an area
characteristic	the qualities of that particular animal or plant
classification key	a set of questions about living organisms' characteristics that will help you identify them
dichotomous key	a tool that can help you identify organisms by splitting organisms into two groups until there is just one organism left in each group
greenbelt	an area of open land that is protected from being built upon
habitat	where an animal, plant, or organism lives. It includes all living and non-living parts of the environment
species	a group of one type of organism, individuals in this group can breed with each other to produce offspring that can go on to reproduce

Classifying Organisms

Classification describes how we can sort all **organisms** (living things) into groups.

Animals and plants belong to different groups.

Plants can be separated into two groups: **flowering** and **nonflowering**.

Animals can be separated into **vertebrates** and **invertebrates**.

Vertebrates

Vertebrates have **endoskeletons** (internal skeletons). Vertebrates can be placed into one of five groups: mammals, birds, fish, reptiles or amphibians.



Fish



Reptile



Bird



Mammal



Amphibian

Invertebrates

Invertebrates do not have endoskeletons. Slugs, snails, insects, worms and spiders are all invertebrates. Invertebrates have **exoskeletons** or **hydrostatic skeletons**.

Exoskeletons are hard, rigid outer coverings on the outside of the body, and can be found in crabs and beetles.



Hydrostatic skeletons are fluid-filled compartments, like those in a worm or a jellyfish.



Biodiversity

- Biodiversity is all the different living things in an area.
- Biodiversity is important because:
Humans rely on biodiversity for food, medicines and other resources.
Living things rely on each other for resources – this is called **interdependence**.
It is important for good soil health.
It is good for our mental well-being.
- Biodiversity is threatened by humans. We remove habitats, cause climate change, hunt animals and reduce biodiversity using some agricultural practices.



Year 4 Geography Knowledge Organiser – Autumn 1

Key Vocabulary	
border	a boundary between different countries
climate	average weather over a long period of time such as 20-30 years
Equator	line of latitude. It is the line that divides the Northern and Southern Hemispheres
favela	an informal, makeshift settlement that is common in urban areas of Brazil. They are not planned and technically are illegal
hemisphere	half of the earth, divided into northern and southern halves by the Equator; or into western and eastern halves by the Prime Meridian
indigenous	native to a country. Can be human or plant and animal species.
Prime Meridian	line of longitude, which splits the Earth in half vertically
rural	usual term for the countryside
urban	usual term for towns, cities and conurbations

South America

South America is made up of 12 countries. Brazil is the largest country on the continent.



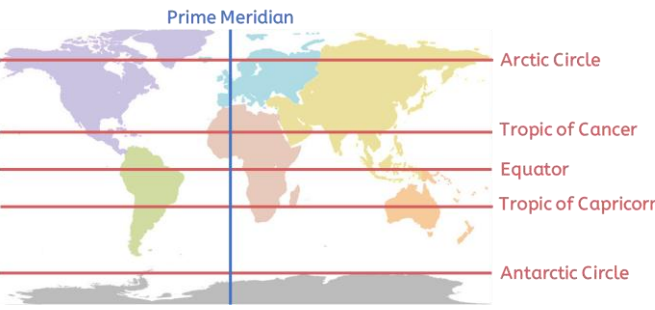
Brasilia is the capital city of Brazil

Rio de Janeiro is the 2nd biggest city in Brazil. Lots of tourists visit Rio de Janeiro.

The **Andes mountain range** lies on the west coast of South America (not in Brazil).

Lines of latitude and longitude

Lines of latitude and longitude are imaginary lines that are used on maps to help us find places on a world map.



The Equator and Prime Meridian split the Earth into hemispheres.

Brazil

Brazil has several physical regions, which share a climate and physical features.



Rural Brazil: Kayapo People

The **Kayapo People** are an indigenous group who live in the Eastern part of the Amazon rainforest in Brazil. They live sustainably, working in harmony with the rainforest.



Urban Brazil: Rio de Janeiro

Rio de Janeiro is a diverse and interesting city. It has informal settlements called favelas alongside luxury houses and hotels. The city is famous for a number of landmarks and events.



