

# **Welcome to Rhino Class Year 4**

**Class Teachers: Mrs S Pain: Mon – Thurs**

**Mrs Walker – Weds am PPA cover**

**Mrs Ivinson – Fridays**

**T.A.s: Mrs D'Ali– Mon- Thurs**

**Mrs Jeffrey – Mon – Weds pm**

**Mrs Griffith - Friday**

We are very much looking forward to getting to know the children and teaching Year 4 this year! Here you will find some key information about the expectations in Rhino class.

# EQUIPMENT FOR SCHOOL

Equipment will be provided for all lessons however if children wish to bring their own **NAMED** items into school, they should be as follows:

- Berol handwriting pen (no erasable pens)
- Glue stick (e.g. pritt)
- Ruler
- HB Pencil
- Pencil Sharpener



**A pencil case can be supplied but it MUST be a plain, clear and flat case.**

**(pictured above).** Any cases which don't meet this criteria will be sent home as they are not essential.

It is important that all equipment (either personal or belonging to the school) is treated with respect and used in the correct way.)



# PE

PE will be on **Tuesday** mornings and **Thursday** afternoons. Children should bring their PE kit into school at the start of term and it can stay in school until the end of that term.

We will be swimming on xxxx between xxxxx. (TBC) Due to the need to remove shoes and socks at the entrance, we advise that girls do not wear tights on swimming days. Navy PE leggings may be worn under school skirts or dresses

Children should always have trainers or plimsols that they can easily put on **quickly** so that they can complete the **DAILY MILE** on non-PE days. (No laces unless children can tie them for themselves.)

Please do not wear ear-rings to school on PE days. If they have to, then they must bring a container to store them in and they must be able to take them out themselves.

# **HOMEWORK - Reading**

We expect children to be reading at least 3 times a week for 20 minutes.

You child will be given a reading record to write down what they are reading and for you to add a signature. Whilst many children will be reading independently. I strongly encourage you to spend time reading with or to your child as well and take the time to enjoy books together and have discussions about what you are reading.

We will check this weekly and expect reading records to be in school every day.

Children who read 3 times a week will receive a raffle ticket to reward their efforts. Children who read 5 times a week will receive 2 raffle tickets.

Raffle tickets are also awarded for book reviews that can be added to our class display.

The reading record will also have log in details for all websites that we use to support home learning. (More details of these will be on the next pages)



# Reading: Y4 expectations

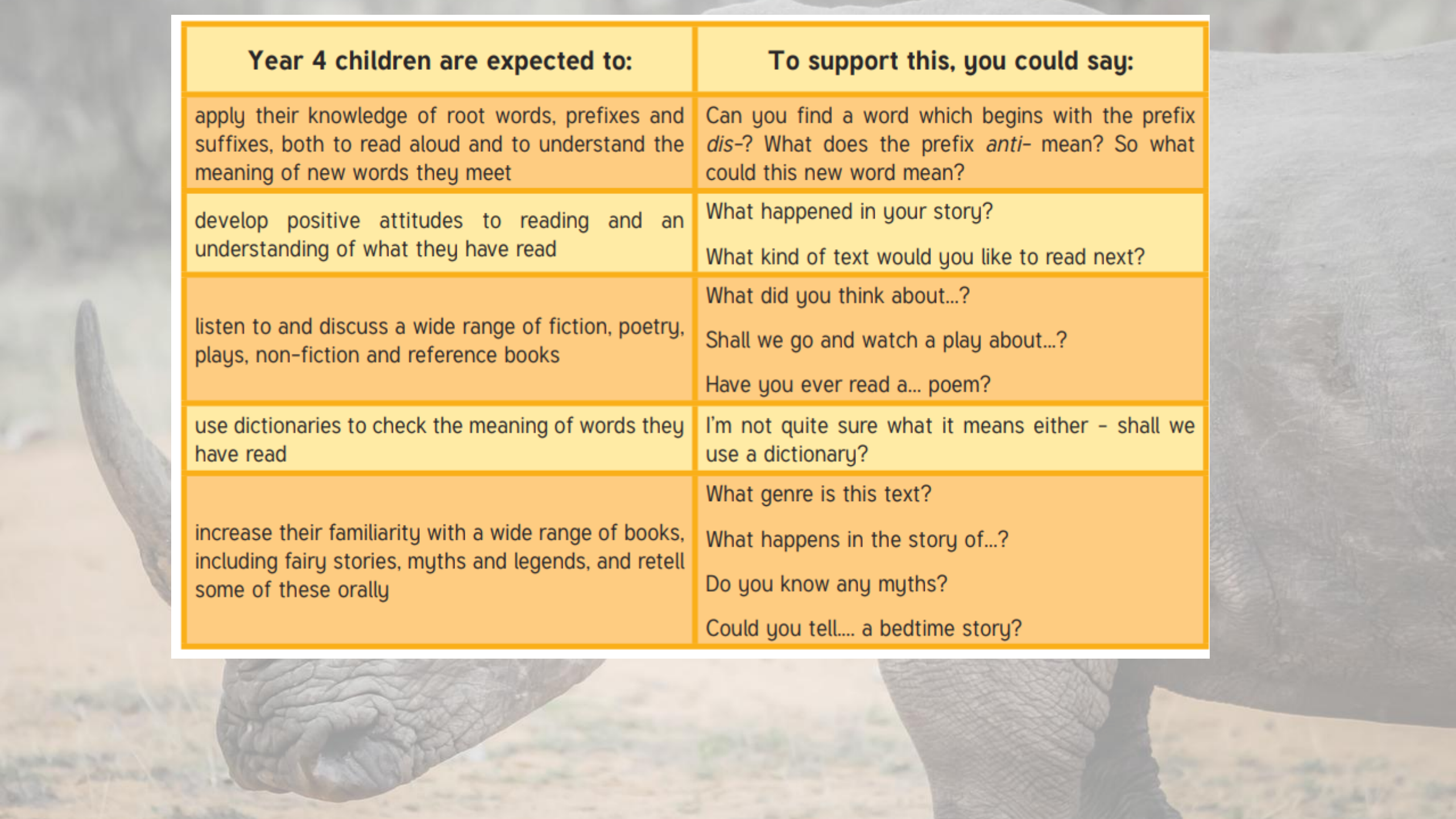
## National Curriculum Expectations

### Year 4

By year 4, pupils should be able to independently, fluently and enthusiastically read books written at an age-appropriate interest level. They should be able to read them accurately and at a speed that allows them to focus on understanding what they have read, rather than on decoding individual words. They should be able to decode most new words outside of their spoken vocabulary, making a good attempt at the word's pronunciation. As their decoding skills become secure, efforts should be made to introduce children to new words which will increase their vocabulary. This should be done through discussion and by introducing children to a wide range of texts, including stories, poems, plays and non-fiction pieces on a wide range of subjects. Children in year 4 should be securing the skill of reading silently to themselves.

### What This Means for Parents

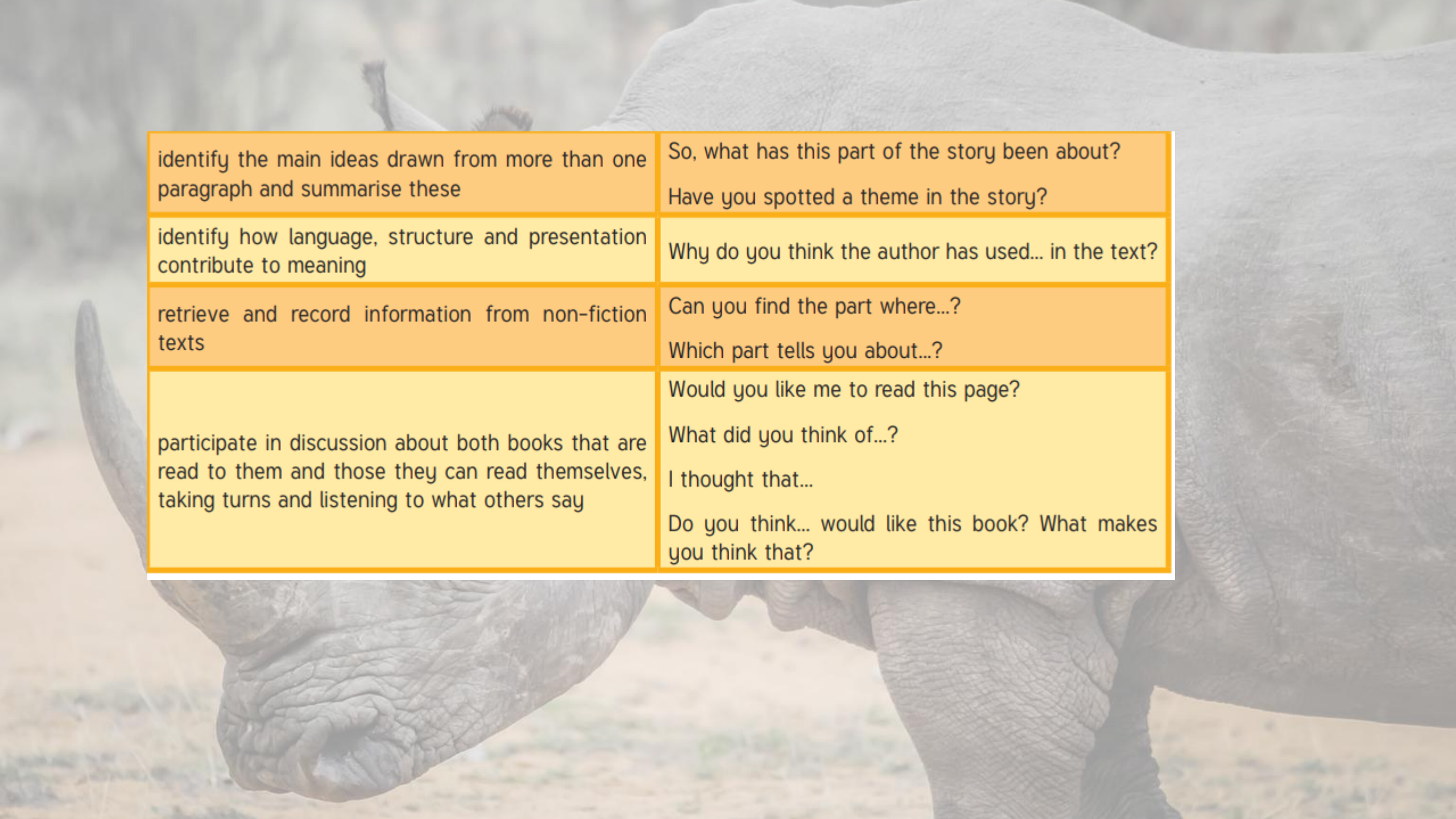
- Give your child access to lots of books on many different topics and by a wide range of authors who write in different styles, e.g. Roald Dahl, Michael Morpurgo to Julia Donaldson.
- Encourage your child to attempt to pronounce new words they see in the environment around them. Discuss tricky parts and model the correct way.
- Broaden the vocabulary you use when speaking to your child and be prepared to clarify the meaning of a wider range of words.
- Encourage your child to read silently to themselves but check their understanding of what they have read after doing so.



| Year 4 children are expected to:                                                                                                    | To support this, you could say:                                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| apply their knowledge of root words, prefixes and suffixes, both to read aloud and to understand the meaning of new words they meet | Can you find a word which begins with the prefix <i>dis-</i> ? What does the prefix <i>anti-</i> mean? So what could this new word mean? |
| develop positive attitudes to reading and an understanding of what they have read                                                   | What happened in your story?<br>What kind of text would you like to read next?                                                           |
| listen to and discuss a wide range of fiction, poetry, plays, non-fiction and reference books                                       | What did you think about...?<br>Shall we go and watch a play about...?<br>Have you ever read a... poem?                                  |
| use dictionaries to check the meaning of words they have read                                                                       | I'm not quite sure what it means either - shall we use a dictionary?                                                                     |
| increase their familiarity with a wide range of books, including fairy stories, myths and legends, and retell some of these orally  | What genre is this text?<br>What happens in the story of...?<br>Do you know any myths?<br>Could you tell... a bedtime story?             |



|                                                                                                                               |                                                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| identify themes and conventions within texts                                                                                  | What message do you think this story is trying to tell us?                                                               |
| prepare poems and playscripts to read aloud and to perform, showing understanding through intonation, tone, volume and action | Would you like to read a poem to us after dinner?<br>This part of the script is a troll speaking; how might they say it? |
| discuss words and phrases that capture the reader's interest and imagination                                                  | What an interesting use of words; why do you think the author chose those?                                               |
| recognise some forms of poetry, e.g. free verse, narrative poetry                                                             | Do you know what kind of poem this is?<br>What can you see?                                                              |
| check that the text makes sense to them                                                                                       | What do you think that is saying?                                                                                        |
| explain the meaning of new words in context                                                                                   | What does... mean? I'm not quite sure. I thought it meant...                                                             |
| ask questions to improve their understanding of the text                                                                      | Is there anything you want to ask that you're not sure about?                                                            |
| draw inferences, such as inferring characters' feelings, thoughts and motives                                                 | How do you think... is feeling? What makes you think that?<br>Why did he make that choice?                               |
| predict what might happen from the details stated and implied                                                                 | If they...., what might they do next?<br>Who could it be? What makes you think that?                                     |



identify the main ideas drawn from more than one paragraph and summarise these

So, what has this part of the story been about?

Have you spotted a theme in the story?

identify how language, structure and presentation contribute to meaning

Why do you think the author has used... in the text?

retrieve and record information from non-fiction texts

Can you find the part where...?

Which part tells you about...?

participate in discussion about both books that are read to them and those they can read themselves, taking turns and listening to what others say

Would you like me to read this page?

What did you think of...?

I thought that...

Do you think... would like this book? What makes you think that?



# **HOMEWORK – Times tables**

By the end of Year 3, children should be fluent with their 2,3,4,5,8 and 10 times tables.

In Year 4, much emphasis is placed on mastering fluency in all times tables as they are an essential part of all areas of mathematical knowledge and so if children can develop fast recall of facts, it will make application of times tables much easier.

Children **MUST** practise in order to develop their recall skills. We use [TTRS](#) as an online tool for practising and specific games will be set that children should play in order to build their fluency. (Log in details will be in reading records)

This should not be lengthy periods of time – but around 5 minutes at least 3 to 4 times a week. Efforts will be rewarded in school assemblies and in the classroom. Further information for parents will be added to the class web page to support you in understanding the games on TTRS.

At the end of the year, children will take a multiplication check test of 25 questions and our aim is that every child will be able to confidently score between 20 and 25.

# The 36 times tables facts

If you already know your 2, 5 and 10 times tables - these are the only other facts you need to learn.

| 1 x table          | 2 x table          | 3 x table           | 4 x table            | 5 x table            | 6 x table            |
|--------------------|--------------------|---------------------|----------------------|----------------------|----------------------|
| $1 \times 1 = 1$   | $2 \times 2 = 4$   | $3 \times 3 = 9$    | $4 \times 4 = 16$    | $5 \times 5 = 25$    | $6 \times 6 = 36$    |
| $2 \times 1 = 2$   | $3 \times 2 = 6$   | $4 \times 3 = 12$   | $5 \times 4 = 20$    | $6 \times 5 = 30$    | $7 \times 6 = 42$    |
| $3 \times 1 = 3$   | $4 \times 2 = 8$   | $5 \times 3 = 15$   | $6 \times 4 = 24$    | $7 \times 5 = 35$    | $8 \times 6 = 48$    |
| $4 \times 1 = 4$   | $5 \times 2 = 10$  | $6 \times 3 = 18$   | $7 \times 4 = 28$    | $8 \times 5 = 40$    | $9 \times 6 = 54$    |
| $5 \times 1 = 5$   | $6 \times 2 = 12$  | $7 \times 3 = 21$   | $8 \times 4 = 32$    | $9 \times 5 = 45$    | $10 \times 6 = 60$   |
| $6 \times 1 = 6$   | $7 \times 2 = 14$  | $8 \times 3 = 24$   | $9 \times 4 = 36$    | $10 \times 5 = 50$   | $11 \times 6 = 66$   |
| $7 \times 1 = 7$   | $8 \times 2 = 16$  | $9 \times 3 = 27$   | $10 \times 4 = 40$   | $11 \times 5 = 55$   | $12 \times 6 = 72$   |
| $8 \times 1 = 8$   | $9 \times 2 = 18$  | $10 \times 3 = 30$  | $11 \times 4 = 44$   | $12 \times 5 = 60$   |                      |
| $9 \times 1 = 9$   | $10 \times 2 = 20$ | $11 \times 3 = 33$  | $12 \times 4 = 48$   |                      |                      |
| $10 \times 1 = 10$ | $11 \times 2 = 22$ | $12 \times 3 = 36$  |                      |                      |                      |
| $11 \times 1 = 11$ | $12 \times 2 = 24$ |                     |                      |                      |                      |
| $12 \times 1 = 12$ |                    |                     |                      |                      |                      |
| 7 x table          | 8 x table          | 9 x table           | 10 x table           | 11 x table           | 12 x table           |
| $7 \times 7 = 49$  | $8 \times 8 = 64$  | $9 \times 9 = 81$   | $10 \times 10 = 100$ | $11 \times 11 = 121$ | $12 \times 12 = 144$ |
| $8 \times 7 = 56$  | $9 \times 8 = 72$  | $10 \times 9 = 90$  | $11 \times 10 = 110$ | $12 \times 11 = 132$ |                      |
| $9 \times 7 = 63$  | $10 \times 8 = 80$ | $11 \times 9 = 99$  | $12 \times 10 = 120$ |                      |                      |
| $10 \times 7 = 70$ | $11 \times 8 = 88$ | $12 \times 9 = 108$ |                      |                      |                      |
| $11 \times 7 = 77$ | $12 \times 8 = 96$ |                     |                      |                      |                      |
| $12 \times 7 = 84$ |                    |                     |                      |                      |                      |



# **HOMEWORK - Spellings**

We will continue to use '[Spelling Shed](#)' to teach spellings and children will all receive a log in so that they can practise the spellings that are assigned to them each week in a range of fun games. Spellings assigned will include the spellings we are teaching but also spellings that are part of key vocabulary in other subjects e.g. maths or history vocabulary.

Children should aim to play game 3 times a week for a short period – e.g. 5 to 10 minutes. I will also send home a book with some other spelling strategies to use at home and a paper version of homework as another option. Spelling lists will be sent each week via Studybugs.

Children will also be able to use Spelling Shed website in school and play whole class 'Hive' games with their class.

# **HOMEWORK - Summary**

Maths: [TTRS](#) – 3 to 4 times a week – approx. 5 minutes

Reading: Minimum of 3 times a week - 20 minutes

Spellings: [Spelling Shed](#) – 3 times a week – approx. 5 – 10 minutes

(You may use other spelling practise strategies as listed in reading records)

Occasionally, we may set an interest based homework or a short activity to complete in advance of a lesson.



# Terms 1 and 2: Learning

MATHS: Place Value, Addition & Subtraction, Area & Multiplication and Division part 1

HISTORY: Term 1: How have children's lives changed?

GEOGRAPHY: Term 2: Why are rainforests important to us?

ART: Term 1: Drawing – Exploring Tone, Texture and Proportion

DT: Term 2: Electrical systems – torches

COMPUTING: Term 1: Computing systems & networks; Term 2: Creating media: audio production

RE: Term 1 – Creation: What do Christians learn from the creation story? Term 2 - Incarnation: What is the Trinity?

SCIENCE: Term 1: Animals – Digestion & food; Term 2: Electricity – Energy and circuits

MUSIC: Term 1: This Little Light of Mine; Term 2: English National Opera Composition project

PSHE: Term 1: Families and relationships; Term 2: Health & Well being

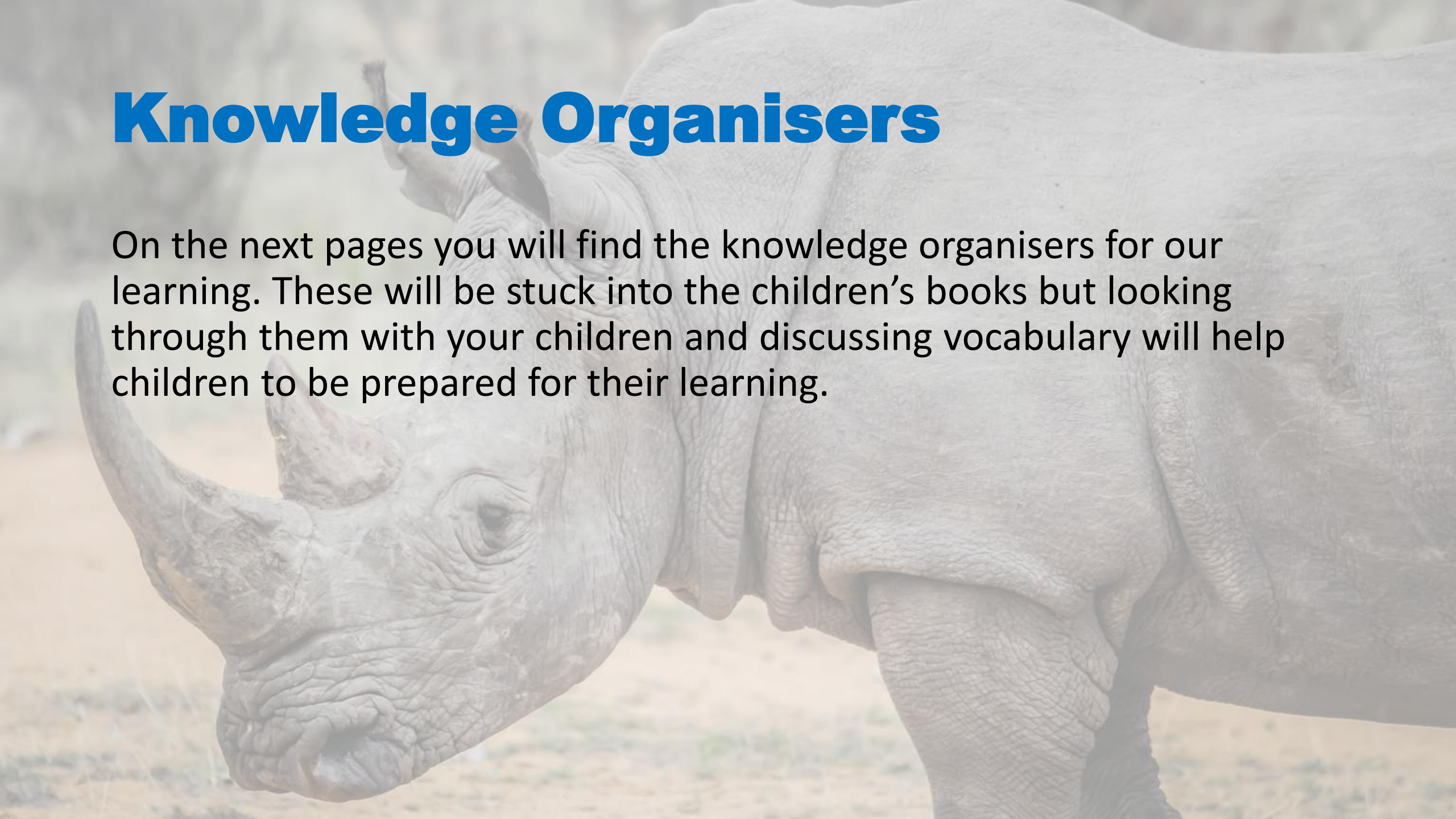
FRENCH: Term 1: Phonics/ Vegetables; Term 2: I can

CORE TEXTS: Term 1: The Lost Thing by Shaun Tann; Term 2: Mr Penguin and the Lost Treasure – Alex T Smith

PE: Term 1: Fundamentals/ Swimming (TBC); Term 2: Fitness/ Dance

# Knowledge Organisers

On the next pages you will find the knowledge organisers for our learning. These will be stuck into the children's books but looking through them with your children and discussing vocabulary will help children to be prepared for their learning.





## Year 4 - How have children's lives changed?

|                  |                                                                                                                                         |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| apprentice       | A young person who learns a trade or occupation in return for accommodation, clothing and food.                                         |
| change           | Things that have not remained the same over time.                                                                                       |
| childhood        | The time between infancy and adolescence.                                                                                               |
| continuity       | Things that remain the same over time.                                                                                                  |
| leisure time     | Free time spent relaxing, entertaining or enjoying hobbies.                                                                             |
| oath             | A solemn promise.                                                                                                                       |
| Parliament       | Comprising of the House of Commons, the House of Lords, and the Monarchy, Parliament passes laws and checks the work of the Government. |
| poverty          | Having insufficient money to pay for accommodation, food, heating or clothing.                                                          |
| primary source   | An original document from the period being studied that has not been changed in any way.                                                |
| secondary source | A document or a record that was not written at the time of the event studied.                                                           |

### Health

Many children did not live to adulthood in Tudor and Victorian England. They were malnourished due to poor harvests. Diseases such as smallpox, cholera and the plague spread rapidly. The development of vaccines, antibiotics and medical care has led to children recovering from illnesses.



### Apprentices

Children as young as seven left home in the Tudor and Victorian times to become apprentices. They swore an oath to remain loyal to their master. In return, they received training, board and lodging. Children - mostly boys - trained to become blacksmiths, cobblers, gong farmers, shipmakers, publishers and more.



### Lord Shaftesbury 1801-1885

Lord Shaftesbury was president of the Ragged School Union, which encouraged the establishment of schools to give working children an education outside working houses. He also publicised the poor working conditions of children and introduced the Ten Hour Act, reducing the number of hours children worked.





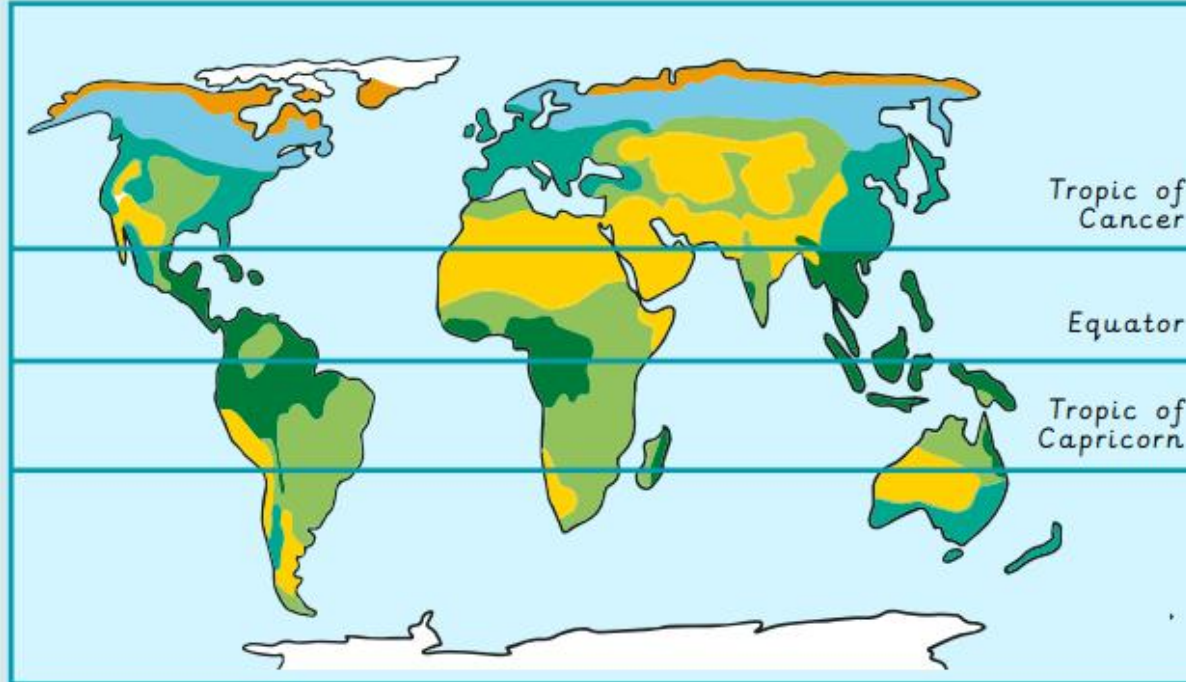


## Map of the world's biomes

### biome

An area of the world with a similar climate and landscape, where similar plants and animals live.

-  Tundra
-  Temperate deciduous forest
-  Tropical rainforest
-  Savannah
-  Desert
-  Boreal forest



Tropic of Cancer

Equator

Tropic of Capricorn

A line of latitude north of the Equator which marks the northernmost edge of the Earth's hottest regions.

An invisible horizontal line that splits the world into two hemispheres.

A line of latitude south of the Equator which marks the southernmost edge of the Earth's hottest regions.

## Tropical rainforest



## How have plants adapted in the Amazon rainforest?



Thin, smooth bark ensures rain can run off trees easily.



Buttress roots keep tall trees stable in the wet soil and strong winds.



Drip tips mean rain can run off leaves without damaging them.



Lianas (vines) wind their way up other plants to reach sunlight.



Map of the Amazon rainforest



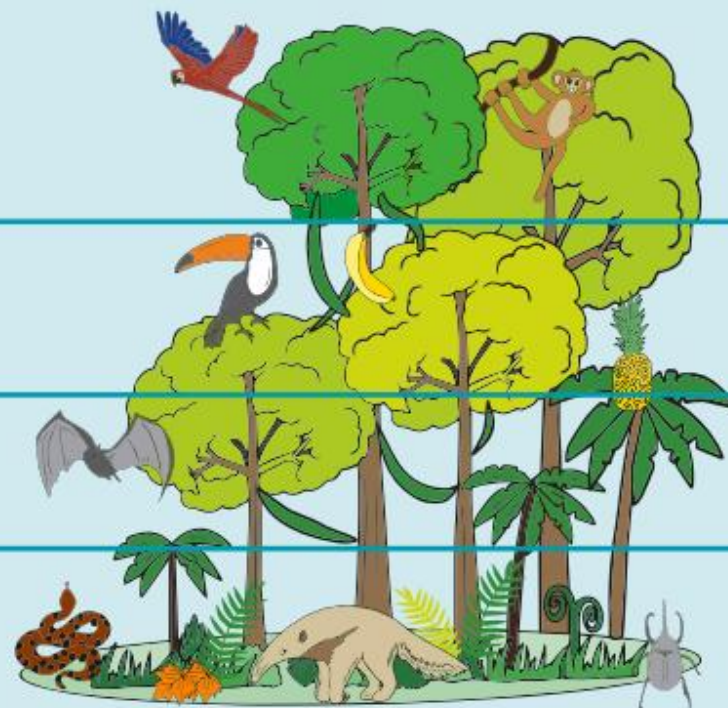
Layers of the rainforest

emergent layer

canopy layer

understorey layer

forest floor



global warming



When our Earth's temperature rises because of greenhouse gases.

mining



The process of digging up valuable minerals from the Earth's crust.

logging



The cutting down of trees for their wood.

deforestation



The cutting down of trees in a large area.

|                   |                                                                                                                 |
|-------------------|-----------------------------------------------------------------------------------------------------------------|
| emergent layer    | The top layer of the rainforest with the tallest trees that get lots of sunlight, rain and wind.                |
| canopy layer      | The layer of overlapping branches and leaves below the top of the rainforest that gets sunlight, rain and wind. |
| understorey layer | The warm and damp layer above the forest floor that gets little light.                                          |
| forest floor      | The ground layer of the rainforest where it is dark, wet and hot.                                               |



## Year 4 - Families and relationships

|                 |                                                                       |
|-----------------|-----------------------------------------------------------------------|
| Act of kindness | Doing something nice for someone.                                     |
| Authority       | A person with high status and decision making power.                  |
| Bereavement     | Mourning or grieving somebody who has died.                           |
| Bullying        | To cause repeated physical or emotional pain to somebody.             |
| Bystander       | Someone who watches something happening without getting involved.     |
| Manners         | A way of behaving that shows respect for other people.                |
| Permission      | Allowing someone to do something once they have asked first.          |
| Respect         | Being thoughtful and polite towards other people.                     |
| Stereotype      | A view or idea about something, often someone, which is often untrue. |

## Key facts

Different manners are needed in different situations.

Everyone should be respected, especially people who have a position of authority such as police and teachers.



People have different boundaries and we should respect these.

Your body belongs to you and you have the right to decide what happens to it.



Gender stereotypes can have an impact on how people see themselves and what they think they can do.

Families in different parts of the world have different ways of living.

There are different ways we can help people when someone close to them has died.

## Getting help

Talk to an adult you trust either at school or at home.

**Contact:** Childline  
www.childline.org | 0800 1111  
Calls DO NOT show on the phone bill



How we behave can have a positive impact on other people, for example saying something kind or helping them.



How we behave can have a negative impact on other people, for example saying nasty things or not letting them join in.



## Year 4 - Health and wellbeing

|                   |                                                                              |
|-------------------|------------------------------------------------------------------------------|
| Fluoride          | A chemical found in toothpaste that helps keep our teeth strong and healthy. |
| Healthy           | Being well, both physically and mentally.                                    |
| Mental health     | Our emotional wellbeing.                                                     |
| Negative emotions | Emotions which make us feel sad or angry.                                    |
| Positive emotions | Emotions which make us and others around us feel happy.                      |
| Relaxation        | Doing calming activities such as having a bath or reading a book             |
| Resilience        | A willingness to keep trying even when things become very hard.              |
| Skill             | The ability to do something well.                                            |
| Visualise         | To create an image of something in the mind.                                 |

### Health tips

Visit a dentist regularly to make sure your teeth are healthy.

Keep a diary of things which happen to you and how they make you feel.

Your physical and mental health are equally important and there are things you can do to look after them both.

### Getting help

Talk to an adult you trust either at school or at home.

**Contact:** Childline  
[www.childline.org](http://www.childline.org) | 0800 1111  
 Calls DO NOT show on the phone bill

## Key facts



There are number of things we can do to keep our teeth healthy including: brushing twice a day, visiting the dentist, avoiding sugary food and drinks and using a fluoride toothpaste.



Visualising a special place can help us to relax and deal with problems.

We can learn from our mistakes.

We can all learn new skills.



Different things make different people happy.

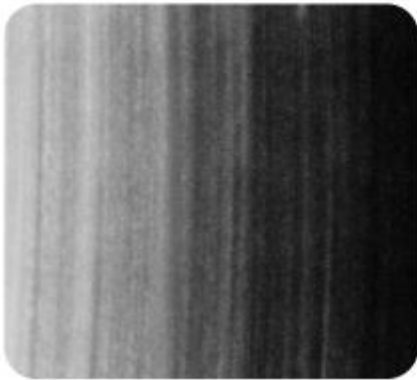


Emotions can be positive and negative and we need to learn to deal with both.

Sometimes, people have problems with their mental health. If they do, there are people who can help them.

## Tone

How light or dark something is.



## Texture

The way that something feels when it is touched. For example, fluffy.



## Composition

Arranging different materials together and sticking them to a surface.



## Artists

- Sarah Graham.
- Nicola McBride.
- Joel Penkman.

## Shadow

A dark shape that appears when something blocks the light.



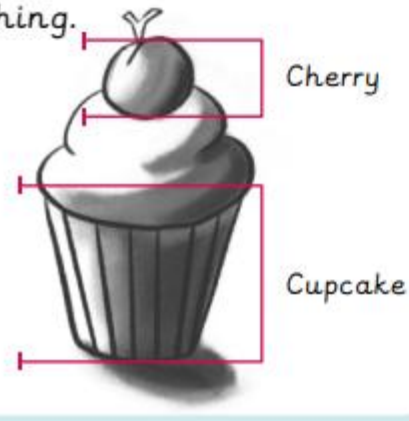
## Highlight

A bright spot or area that makes something stand out or look shiny.



## Proportion

How big one element of an artwork appears compared to the whole thing.



## The four rules of shading

1. Use the side of the pencil.
2. Work in one direction.
3. Press evenly.
4. Leave no gaps.





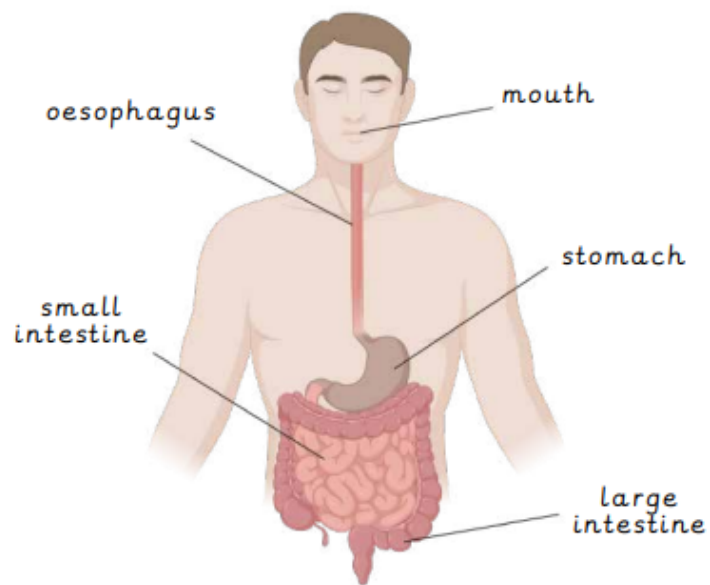
|                 |                                                                                                                                                      |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| battery         | Made from two or more cells that provide electrical energy to power a circuit.                                                                       |
| bulb            | A part of a circuit made from glass or plastic that gives light when electricity passes through it.                                                  |
| conductor       | A material that allows electricity to flow through it, such as metal.                                                                                |
| design criteria | A set of instructions for the project.                                                                                                               |
| electricity     | A type of energy that is usually invisible and can be made or stored to make things work, such as moving or heating objects.                         |
| insulator       | A material that does not let electricity flow through it, such as plastic.                                                                           |
| series circuit  | A closed circuit where the current flows in one path.                                                                                                |
| switch          | A part of a circuit that can open or close to allow electricity to flow or stop it from flowing, such as a light switch that turns lights on or off. |
| test            | To find out whether something works as it should.                                                                                                    |
| torch           | A battery-powered light that can be carried.                                                                                                         |
| wire            | A thin piece of copper that conducts electricity and connects circuit components together.                                                           |

### Many products use batteries.



In the past, there were no electrical items because they had not been invented yet.

## The human digestive system



**Mouth:** teeth for cutting and grinding and saliva for softening and breaking up food.

**Oesophagus:** carries food from the mouth to the stomach.

**Stomach:** breaks up food using acid.

**Small intestine:** breaks up food and absorbs useful nutrients into the blood.

**Large intestine:** absorbs water into the blood.

## Teeth in different animals

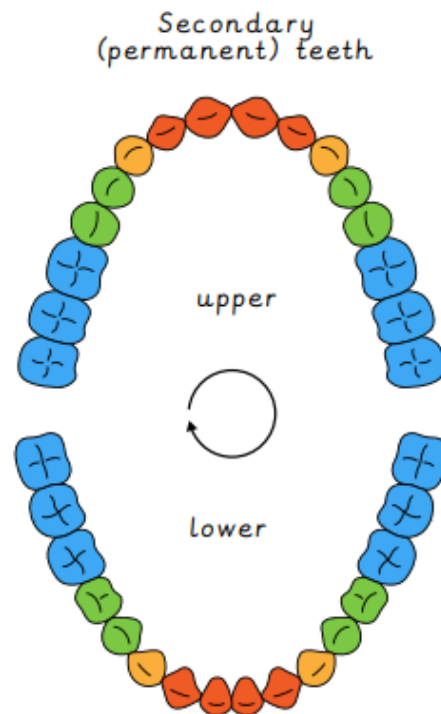
Animals have different shaped teeth depending on their diet.

**Carnivores** tend to have much larger canines to help catch and tear their prey.

**Herbivores** tend to have flatter and larger molars to help grind and crush the plants they eat.



## Human teeth



**Incisor:** a tooth at the front of the mouth, useful for cutting.



**Canine:** a pointed tooth, useful for tearing.



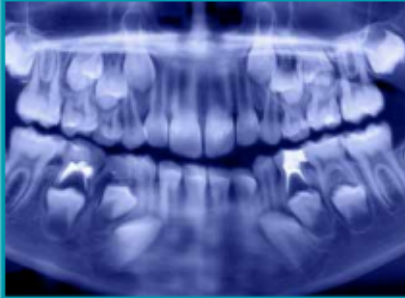
**Premolar:** a tooth in front of the molars, useful for grinding.



**Molar:** a tooth at the back of the mouth, useful for grinding.



## Evidence scientists use



**X-rays** are used to produce images of inside the body. They help doctors and dentists to find and treat problems.



**Fossils** are the remains or traces of an animal or plant that lived long ago. Fossilised teeth can give us clues about the kind of diet an animal had, by comparing their teeth to modern animals.

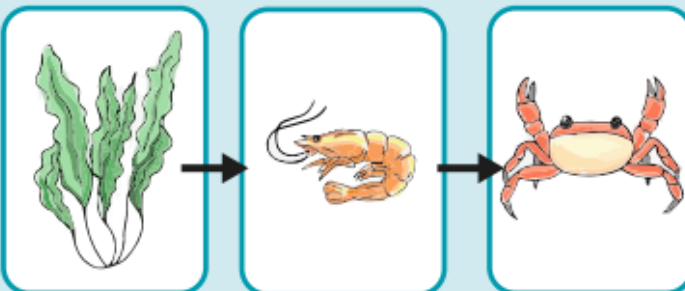


**Faeces** are the solid waste from the **digestive system**. The contents of the faeces can show us what an animal has eaten and if it is living nearby.

## Further vocabulary

|          |                                                                          |
|----------|--------------------------------------------------------------------------|
| absorb   | To take in or soak up.                                                   |
| digest   | To break up food into smaller pieces.                                    |
| predator | Something that hunts and kills its food.                                 |
| prey     | Something that is hunted and killed for food.                            |
| producer | A living thing that makes its own food.                                  |
| saliva   | The liquid added to the mouth to help chewing, swallowing and digestion. |

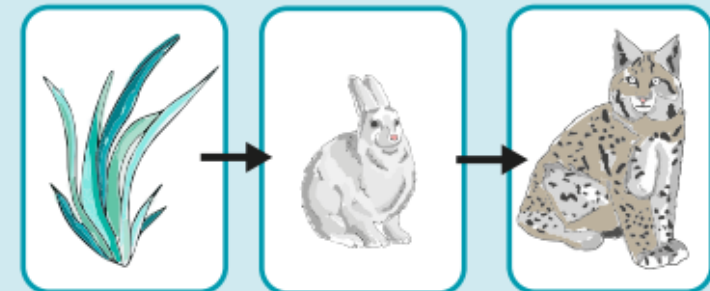
## Food chains show the energy being passed between living things in a habitat.



seaweed → shrimp → crab

**Food chains** usually contain three or four living things.

Food chains always start with a **producer** (plant), followed by an animal that eats the plant (**herbivore** or **omnivore**) and an animal that eats other animals (**carnivore** or **omnivore**).



grass → snowshoe hare → lynx

## Electrical appliances

There are many examples of electrical appliances around us.



An **electrical circuit** is the pathway electrical charge flows around in an appliance.

For a circuit to work, it must have:

- A power source.
- A complete pathway.
- A device or component, such as a bulb.

**power source** - Something that transfers electrical energy to make an appliance work.

### mains power



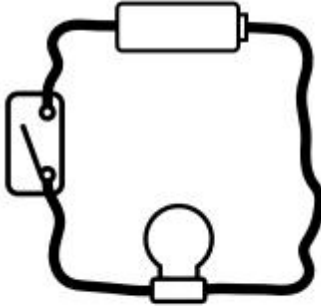
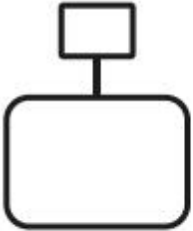
- Provides high power for larger appliances.
- Access to an electrical socket is needed to use the appliance.
- The appliance will be fixed in place.

### batteries



- Allows an appliance to be portable (move anywhere).
- Can use an appliance where there are no electrical sockets.
- Batteries run out and need replacing.
- Batteries are harmful and must not go to landfill.



|                                                                                                                                                                        |                                                                                                               |                                                                                                          |                                                                                                         |                                                                                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>A <b>component</b> is a part of an electrical circuit.</p> <p><b>Symbols</b> are often used to represent the components so they are easy to draw and recognise.</p> | <p><b>battery/cell</b></p>   | <p><b>wire</b></p>    | <p><b>bulb</b></p>   | <p>A <b>circuit diagram</b> is a simple line drawing that represents how the components in an appliance join together.</p>  |
| <p><b>open switch</b></p>                                                             | <p><b>closed switch</b></p>  | <p><b>buzzer</b></p>  | <p><b>motor</b></p>  |                                                                                                                                                                                                                |

**Electrical conductors** - materials that allow electrical charge to flow through quickly.



Metals are good electrical conductors.

**Electrical insulators** - materials that do not allow electrical charge to flow easily.



Plastics are good electrical insulators.

## Electrical safety



- Do not use wet hands when using electrical appliances or switches.
- Do not put anything other than a plug in an electrical socket.
- Let an adult know if electrical appliances or wires appear damaged.
- Do not leave electrical wires across the floor or hot surfaces.



## YEAR 4, TERM 1 - UNDERSTANDING CHRISTIANITY CREATION - CORE



# What do Christians learn from the Creation story?

### We are thinking, asking and learning about the following:

God the Creator cares for the creation, including human beings.

As human beings are part of God's good creation, they do best when they listen to God.

The Bible shows that God wants to help people to be close to him — he keeps his relationship with them, gives them guidelines on good ways to live (such as the Ten Commandments).

Christians believe God made our wonderful world and so we should look after it.

### VOCABULARY

God Bible Creation church worship pray pray Harvest Christian Lord's Prayer thanks Baptism Charity loving Jewish  
creator universe relationship unique





## YEAR 4, TERM 2 - UNDERSTANDING CHRISTIANITY

### INCARNATION - DIGGING DEEPER



# What is the Trinity?

## We are thinking, asking and learning about the following:

Identifying John 1 as part of a 'Gospel', noting some differences between John and the other Gospels.

Suggest what some Bible texts about God might mean, and what they mean to some Christians today.

How Christians show their beliefs about God the Trinity in the way they live.

Make links between some of the texts and teachings about God in the Bible and what people believe about God in the world today, expressing some ideas of their own clearly.

## VOCABULARY

Gospel Trinity God Father Son Holy Spirit Incarnate Incarnation



Get Set 4  
Education

# Knowledge Organiser Fundamentals Year 4

## About this Unit

Fundamental movement skills are a specific set of skills that involve different body parts. These skills are the base for more complex skills that you will learn throughout your life. They help us take part in games, sports and everyday activities. We use them when we walk, jump, ride a bike, eat food, get dressed, brush our teeth, sing and dance.

Physical fitness includes many different parts such as agility, balance, co-ordination, speed, stamina and strength. These elements are so important in everyday activities such as these examples...

- Agility is...
- Balance is...
- Co-ordination is...
- Speed is...

Can you finish the sentences?



## Key Vocabulary



**accelerate:** speed up  
**agility:** the ability to change direction quickly  
**balance:** the ability to maintain stability when stationary (static balance) or when moving (dynamic balance)  
**co-ordination:** moving two or more body parts at the same time  
**control:** being able to perform a skill with good technique  
**decelerate:** slow down  
**distance:** the measurement of space  
**momentum:** the direction created by weight and power  
**react:** to respond quickly  
**rhythm:** a strong, regular repeated pattern of movement  
**speed:** how fast you are travelling  
**stability:** balanced  
**technique:** the action used correctly

## Ladder Knowledge



**Running:**  
Keep your elbows bent when changing direction to help you to stay balanced.

**Balancing:**  
Squeeze different muscles to help you to stay balanced in different activities.

**Jumping and hopping:**  
Swing your non-hopping foot helps to create momentum.

**Skipping:**  
Keep your chest up to help you to stay balanced.

## Movement Skills

- balance
- run
- dodge
- hop
- jump
- skip

This unit will also help you to develop other important skills.

**Social** respect, collaboration, support and encourage others

**Emotional** determination, perseverance, honesty

**Thinking** select and apply, observation, provide feedback, comprehension

## Strategy

Identify your areas of strength and your areas for development. Then, think of everyday activities where you could practice e.g. standing on one foot while brushing your teeth will develop balance and co-ordination.

## Healthy Participation



- Move in a safe way both with and without equipment.
- Ensure that all equipment is stored safely when not in use.

If you enjoy this unit why not see if there is an athletics club in your local area.



How will this unit help your body?

agility, balance, co-ordination, speed

## Home Learning

Find more games that develop these skills in the Home Learning Active Families tab on [www.getset4education.co.uk](http://www.getset4education.co.uk)



## Change it



**What you need:** someone to time, four cushions and three socks.

### How to play:

- Place the cushions randomly in a space. Place a sock on three of the four cushions, leaving one cushion empty.
- Time one minute.
- Collect one sock from a cushion and place it on top of the empty cushion. Then collect another sock from another cushion and place it on the new empty cushion. How many socks can you move in one minute?
- Play again, can you improve your score?
- Make this harder by moving the cushions further apart.

[www.getset4education.co.uk](http://www.getset4education.co.uk)

Head to our youtube channel to watch the skills videos for this unit.



@getset4education136



# Knowledge Organiser

## Swimming Year 3 and Year 4

### About this Unit



Learning how to swim is very important! It's like having a special superpower that helps you stay safe and have lots of fun in the water.

#### Let's see why:

-  Safe swimmer: when you know how to swim, you can be a safe swimmer and avoid getting into trouble in the water. It's like wearing a magical shield that keeps you safe from water dangers.
-  Water hero: imagine being a water hero who knows how to help someone if they're in trouble in the water.
-  Strong and healthy: swimming is like a workout for your whole body. It makes your muscles strong, your heart happy, and keeps you fit and healthy.
-  Awesome adventures: when you can swim, you can try so many cool things like snorkelling to see colourful fish, surfing on big waves, or even playing fun water games with your friends.
-  Believe in yourself: learning to swim might seem tricky at first, but when you practice and learn, you'll feel very proud of yourself.

### Key Vocabulary



**alternate:** one then the other

**backstroke:** a swimming style performed on the back

**breaststroke:** a swimming style performed on the front

**breathing:** when a swimmer chooses to breathe

**buoyancy:** how able an object is to float in water

**crawl:** a type of stroke

**floating:** the ability to stay on the water's surface

**front crawl:** a stroke used in swimming

**glide:** move across the water with a smooth continuous movement

**H.E.L.P position:** Heat Escape Lessening Posture: a position for floating in cold water when wearing a life jacket and awaiting rescue

**handstand:** an inverted balance in which weight is held on hands

**huddle:** a position for two or more people floating in cold water wearing life jackets and awaiting rescue

**rotation:** the circular movement of an object around a central point

**sculling:** quick movements of the hands to keep the head above the water

**sidestroke:** a stroke where the swimmer lies on their side, helpful as a lifesaving stroke as it uses less energy

**sinking:** travelling lower than the surface

**stroke:** the style of swimming, there are four competitive strokes: butterfly, backstroke, breaststroke, freestyle

**submerge:** to be underwater

**surface:** where the water ends

**surface dive:** to go beneath the water

**survival:** the act of living

**tactics:** a plan or strategy

**technique:** the action used correctly

**treading water:** a survival technique used to keep the head above the water

**water safety:** actions to keep people safe around water

### Ladder Knowledge



**Year 3:** keeping your legs together for crawl helps you to stay straight in the water.

**Year 4:** keeping your legs together for crawl helps you to stay straight in the water.

### Strokes:

**Year 3:** turning your head to the side to breathe will allow you to swim with good technique.

**Year 4:** breathing out with a slow consistent breath enables you to swim for longer before needing another breath.

### Water safety:

**Year 3:** treading water enables you to keep upright and in the same space.

**Year 4:** if you fall in the water float.

### Movement Skills

- submersion
- float
- glide
- front crawl
- backstroke
- breaststroke
- rotation
- scull
- tread water
- handstands
- surface dives
- H.E.L.P and huddle position

This unit will also help you to develop other important skills.

#### Social

communication, support and encourage others, keep myself and others safe, collaboration,

#### Emotional

confidence, honesty, determination, independence, perseverance

#### Thinking

comprehension, observe and provide feedback, tactics, select and apply skills

### Rules

#### 1. Stop and think, always swim in a safe place

When swimming outdoors preferably swim at a lifeguard beach, organised session or a supervised space.

#### 2. Stay together, always swim with an adult

When swimming outdoors you must always stay together. NEVER go alone.

#### 3. Float

If you fall into the water unexpectedly – float on your back until you can control your breathing. Then, either call for help or swim to safety.

#### 4. Call 999

If you see someone in trouble, tell someone or go to the nearest telephone and dial 999.

### Healthy Participation



- Always swim with an adult.
- Wait for a qualified lifeguard before entering the water.

If you enjoy this unit why not see if there is a swimming club in your local area.



How will this unit help your body?

balance, co-ordination, flexibility, speed, stamina, strength

### Home Learning



Find more games that develop these skills in the Home Learning Active Families tab on [www.getset4education.co.uk](http://www.getset4education.co.uk)

### Dolphin Dash



**What you need:** a swimming pool with a lifeguard, a supervising adult.

#### How to play:

- Choose a starting and finishing point in the pool. These can be across the width of the pool or from one end to the other.
- Line up at the starting point. Everyone will be a dolphin for this game!
- Swim using your best dolphin strokes by moving your body in a wave like motion with arms and legs straight.
- Every few strokes, do a little dolphin jump by lifting your upper body slightly out of the water. Pretend you're leaping over waves.
- Playing with others? Who can reach the other side first?
- Playing by yourself? How long does it take you to reach the other side?







Get Set 4  
Education

# Knowledge Organiser

## Dance Year 4

### About this Unit

This unit is inspired by lots of different themes. Here are some that you may explore...

**This dance is inspired by a spy!**

**Counts 1-4:**  
Creep forwards lightly on your toes, looking from side to side.

**Counts 5-8:**  
Stand with your feet shoulder width apart, bend your knees. Transfer weight from left to right, turning your head from left to right. Repeat other side.

**Counts 1-4:**  
Step whilst turning, travelling sideways to the left.

**Counts 5 and 6:**  
Kick your right foot round in a circle.

**Counts 7 and 8:**  
Run backwards quickly.

**The Spy Set Phrase**

**CARNIVAL TIME**

Samba music has its roots in Brazilian and African music.

Music and dance play a major role in the Rio de Janeiro Carnival.

| States of Matter |                                          |                                    |                                            |                                                  |
|------------------|------------------------------------------|------------------------------------|--------------------------------------------|--------------------------------------------------|
| solid            | actions                                  | dynamics                           | space                                      | relationships                                    |
|                  | kick lunge<br>stamp step<br>slide        | strongly<br>heavily<br>robotically | same level<br>straight<br>pathways         | unison<br>side by side<br>in contact<br>matching |
|                  | slide wave<br>twist<br>ripple            | smoothly<br>fluidly<br>gently      | curved<br>pathways<br>varied<br>directions | some<br>performers<br>in contact<br>canon        |
|                  | extend<br>spin leap<br>roll kick<br>jump | smoothly<br>gently<br>fluidly      | varied<br>directions<br>pathways<br>levels | random timing<br>not in contact<br>spaced        |

**The Twist**

- The twist was a dance inspired by rock and roll music.
- It became the first worldwide dance craze in the early 1960s.
- The actions are wild and spontaneous, with swivelling of the hips and toes as the dancer moves up and down.
- Big facial expressions and exaggerated moves.

### Key Vocabulary

**action:** the movement a performer uses e.g. travel, jump, kick

**action and reaction:** one movement has an effect on another movement e.g. push/pull, up/down, forward/backward

**canon:** when performers complete the same action one after the other

**dynamics:** how an action is performed e.g. quickly, slowly, gently

**expression:** actions or gestures used to share thoughts or feelings

**flow:** actions that move from one to another easily

**formation:** where performers are in the space in relation to others

**match:** to perform the same action as someone else

**mirror:** reflecting the movements of another person as if they are a reflection

**mirror:** reflecting the movements of another person as if they are a reflection

**order:** the sequence of actions

**performance:** the complete sequence of actions

**phrase:** a short sequence of linked movements

**relationship:** the ways in which dancers interact, the connections between dancers

**represent:** to stand for something

**rhythm:** a strong, regular repeated pattern of movement

**space:** the 'where' of movement such as levels, directions, pathways, shapes

**structure:** the way in which a dance is ordered or organised

**timing:** moving to the beat of the music

**unison:** two or more people performing the same movement at the same time

### Ladder Knowledge



#### Actions:

Some actions are better suited to a certain character, mood or idea than others. Think carefully about the actions you choose to help you show your dance idea.

#### Dynamics:

Some dynamics are better suited to a certain character, mood or idea than others. Think carefully about the dynamics you choose to help you show your dance idea.

#### Space:

Space can be used to express a certain character, mood or idea.

#### Relationships:

Some relationships are better suited to a certain character, mood or idea than others. Think carefully about the relationships you choose to help you show your dance idea.

### Movement Skills

- actions
- dynamics
- space
- relationships

This unit will also help you to develop other important skills.

**Social** co-operation, communication, inclusion, collaboration

**Emotional** confidence, empathy, determination

**Thinking** observe and provide feedback, select and apply skills, creativity, comprehension

### Strategies

Being aware of other performers in your group will help you to move in time. You can select from a range of dance techniques to help translate your dance idea such as actions, space, dynamics and relationships.

### Healthy Participation



You should be bare foot for dance.

Ensure you always work in your own safe space when working independently.

### Home Learning

Find more games that develop these skills in the Home Learning Active Families tab on [www.getset4education.co.uk](http://www.getset4education.co.uk)

### Family Fun Dance

#### How to play:

- Think of the typical gestures and movements some of your family members do all of the time.
- Decide on two or more typical movements for each person.
- Link these into a dance performance and add some music to your dance.
- Perform to your family.
- If you have a brother or sister, you could create the dance with them about your parents.

You could even use your pets for ideas.

[www.getset4education.co.uk](http://www.getset4education.co.uk)

If you enjoy this unit why not see if there is a dance club in your local area.



How will this unit help your body?

Balance, co-ordination, flexibility.

Head to our youtube channel to watch the skills videos for this unit.



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Name: .....

Class: .....

# This little light of mine

Year 4 Term 1

## Gospel music:

- Gospel = Good news.
- Gospel songs often describe stories from the bible, praising Jesus and God.
- Gospel is a form of African American religious music.



Sister Rosetta Tharpe

Ray Charles



## Pentatonic scale:

A five note scale.

G A B (or B<sup>b</sup>) D E

'Blue' note



## Bass line:

The lowest notes played in the music.



## Rhythmic ostinato:

A rhythm pattern that repeats throughout the music.



Clarinet, electric guitar, band, banjo, double bass, hand drum, trumpet, and trombone.

Verse  
Chorus  
Call-and-response  
Echo  
Phrase

Choir  
Solo singer  
Voices in harmony





**I wanna  
sing scat**

(progression  
song)

I wanna sing scat, sing scat  
I wanna sing bop, sing bop  
I wanna sing swing, sing swing  
I wanna sing jazz, sing jazz  
I wanna sing scat, sing scat

**Sing in a Gospel style**

**'Doodle' with the melody**

**Slide between notes**

**Add 'oohs' and 'woos'**

**Repeat words**

**'Twiddle' on words**

**Extend a word for a long time**

**Move in time to the song**



1920s



1950s & 1960s



1960s



21st Century - Present

Harry Dixon Loes wrote  
*This little light of mine*.

*This little light of mine* was  
popular in the United States  
Civil Rights movement.

Sister Rosetta Tharpe  
performed *Didn't it rain* in a  
Manchester railway station.

Hezekiah Walker *Every praise*.

What elements of Gospel music will you include in a performance of *This little light of mine*?

Opening chorus: .....

Verse 1: .....

Chorus: .....

Verse 2: .....

Chorus: .....

I can improvise using notes  
from the pentatonic scale and  
sing in a Gospel style.



Add a comment:



Name: .....

Class: .....

# The Pink Panther

Year 4 Term 1

'The Pink Panther theme' was composed by Henry Mancini for the 1963 film *The Pink Panther*.

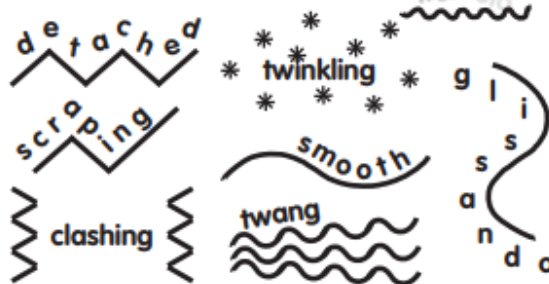
Meet the composer  
A person who writes music.



Henry Mancini



Words to describe sounds:



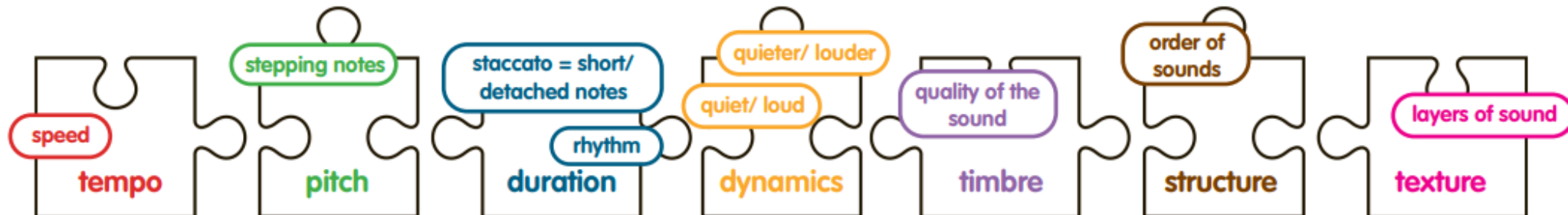
Music has such an important part to play in film and television. It adds to the mood and atmosphere in the scene.

- Tension
- Romance
- Mystery

Instruments for sound effects:



- Henry Mancini was American.
- As well as being a composer he was also a conductor, and played the piano and flute.
- He has won lots of awards for his music, including 20 Grammy's.
- He wrote the song *Moon river* and the *Peter Gunn* theme.

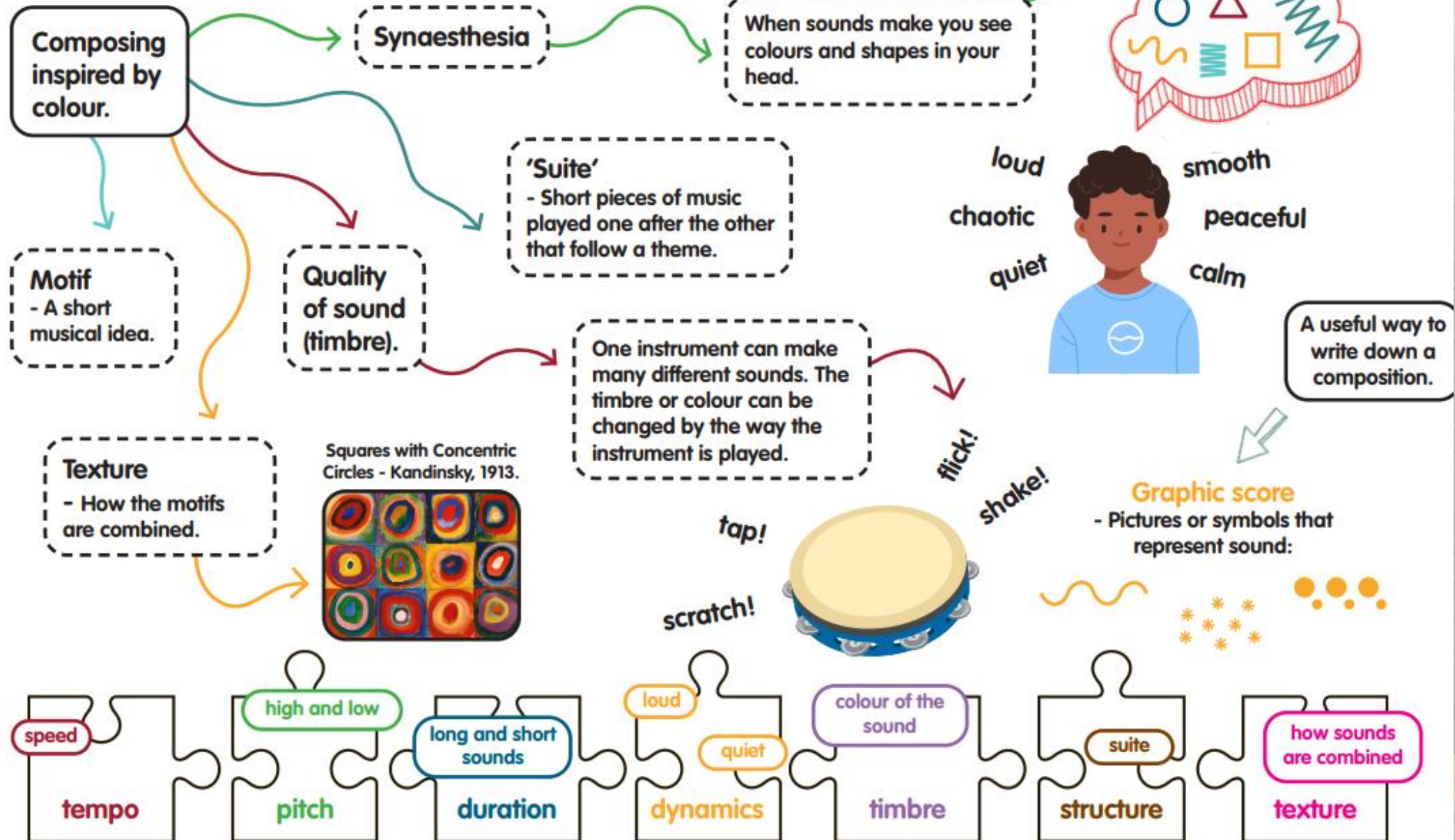


Name: .....

# Composing with colour

Year 4 Term 1

Class: .....





## Mark Rothko



His style of painting was called 'colour field' painting.



Many of his artworks were produced on huge canvases.



He wanted the viewer to be immersed in colour.

Music ideas inspired by a Rothko painting.

Think about TIMBRE and TEXTURE.



For Kandinsky the sound of a trumpet was yellow.

Circles were 'peaceful'.

## Wassily Kandinsky

He had a condition called synaesthesia. When he heard sounds, he saw colours and shapes in his head.



I understand about timbre and texture and can compose sounds inspired by colours and shapes.



Add a comment:

# Les légumes

## phonics

sound in:

ch

• champignons



sound in:

on

• oignons



&

## silent letters

There are many last consonant silent letters in French.

The final 's' is silent in the word 'les' and pronounced similar to the English sound 'leh'.

However, if it is followed by a noun that starts with a vowel like 'oignons', 'épinards' or 'aubergines' the 's' in 'les' will be pronounced almost like a 'z' sound.

This is called liaison.

## vocabulary

10 common vegetable nouns with their plural determiner in French.



How to ask for a 1 kilo and/or ½ a kilo.



How to use the structure 'je voudrais' (I would like).



Je voudrais un kilo de carottes et un demi kilo d'aubergines s'il vous plaît.

*I would like a kilo of carrots and half a kilo of aubergines please.*

## grammar

The plural form of the determiner 'the' in French (les) does not change in masculine or feminine form.

les

Plural determiner 'the'.

To become more familiar with and use the high frequency verb 'je voudrais' (I would like) in French.

je voudrais

*I would like...*

## What I will learn:

- ☐ Objective 1: I will learn and become familiar with 5 vegetable nouns and their plural determiner in French.
- ☐ Objective 2: I will learn and become familiar with 5 more vegetable nouns and their plural determiner in French.
- ☐ Objective 3: I will learn how to ask for a kilo or half a kilo of a vegetable in French.
- ☐ Objective 4: I will learn how to use the structure 'je voudrais' (I would like) when buying vegetables.
- ☐ Objective 5: I will learn how to use the conjunction 'et' (and) when buying more than one vegetable option.



# Je peux...

ch

sound in:

• chanter



phonics

ou

sound in:

• ouer d'un instrument



&

silent  
letters

There are many last consonant silent letters in French. The final letter 'x' is silent in the word 'peux'.

10 action verbs in French.



vocabulary

How to say the above in the negative form.

Je ne peux pas patiner.

*I am not able to skate.*

How to use conjunctions in French.

Je peux danser mais je ne peux pas chanter.

*I am able to dance but I am not able to sing.*

grammar

'Je peux' (I am able) is the first person conjugation of the verb 'pouvoir' (to be able). It is always followed an infinitive.

je peux

*I am able...*

In the negative form the structure is: 'Je ne peux pas'.

je ne peux pas

*I am not able...*

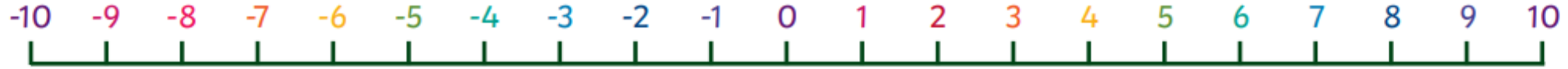
## What I will learn:

- ☐ Objective 1: I will learn 5 high frequency infinitive verbs in French.
- ☐ Objective 2: I will learn 5 more high frequency infinitive verbs in French.
- ☐ Objective 3: I will learn how to use the structure '**je peux**' with the infinitive verbs in French.
- ☐ Objective 4: I will learn how to use the negative structure '**je ne peux pas**' followed by infinitive verbs in French.
- ☐ Objective 5: I will learn how to use conjunctions '**et**' (and) & '**mais**' (but) in French.

| Key Vocabulary                                                                                                                            | Counting          |           |          |      |                           |                        |                                                              |      |                               |      |                                                                                                                |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------|----------|------|---------------------------|------------------------|--------------------------------------------------------------|------|-------------------------------|------|----------------------------------------------------------------------------------------------------------------|----|---|---|---|--|--|--|--|--|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--|-----------|--|--|--|--|--|--|--|--|--|--|--|--|------|------|------|
| thousands                                                                                                                                 | Counting in 6s    |           |          |      |                           |                        |                                                              |      |                               |      |                                                                                                                |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
| hundreds                                                                                                                                  | 0                 | 6         | 12       | 18   | 24                        | 30                     | 36                                                           | 42   | 48                            | 54   | 60                                                                                                             |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
| tens                                                                                                                                      | Counting in 7s    |           |          |      |                           |                        |                                                              |      |                               |      |                                                                                                                |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
| ones                                                                                                                                      | 0                 | 7         | 14       | 21   | 28                        | 35                     | 42                                                           | 49   | 56                            | 63   | 70                                                                                                             |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
| zero                                                                                                                                      | Counting in 9s    |           |          |      |                           |                        |                                                              |      |                               |      |                                                                                                                |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
| place value                                                                                                                               | 0                 | 9         | 18       | 27   | 36                        | 45                     | 54                                                           | 63   | 72                            | 81   | 90                                                                                                             |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
| greater than                                                                                                                              | Counting in 25s   |           |          |      |                           |                        |                                                              |      |                               |      |                                                                                                                |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
| less than                                                                                                                                 | 0                 | 25        | 50       | 75   | 100                       | 125                    | 150                                                          | 175  | 200                           | 225  | 250                                                                                                            |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
| order                                                                                                                                     | Counting in 1000s |           |          |      |                           |                        |                                                              |      |                               |      |                                                                                                                |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
| round                                                                                                                                     | 0                 | 1000      | 2000     | 3000 | 4000                      | 5000                   | 6000                                                         | 7000 | 8000                          | 9000 | 10 000                                                                                                         |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
| rounded to                                                                                                                                |                   |           |          |      |                           |                        |                                                              |      |                               |      |                                                                                                                |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
| negative number                                                                                                                           |                   |           |          |      |                           |                        |                                                              |      |                               |      |                                                                                                                |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
| partition                                                                                                                                 |                   |           |          |      |                           |                        |                                                              |      |                               |      |                                                                                                                |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
| digit                                                                                                                                     |                   |           |          |      |                           |                        |                                                              |      |                               |      |                                                                                                                |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
| Roman numeral                                                                                                                             |                   |           |          |      |                           |                        |                                                              |      |                               |      |                                                                                                                |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
|  visit <a href="https://www.twinkl.com">twinkl.com</a> |                   |           |          |      |                           |                        |                                                              |      |                               |      |                                                                                                                |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
| Compare and Order                                                                                                                         |                   |           |          |      |                           | 1000 More or 1000 Less |                                                              |      |                               |      |                                                                                                                |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
| <table><tr><th>Th</th><th>H</th><th>T</th><th>O</th></tr><tr><td></td><td></td><td></td><td></td></tr></table>                            | Th                | H         | T        | O    |                           |                        |                                                              |      | $4324 > 3243$<br>greater than |      | <table><tr><th>Th</th><th>H</th><th>T</th><th>O</th></tr><tr><td></td><td></td><td></td><td></td></tr></table> | Th | H | T | O |  |  |  |  |  |  | <table><tr><th>1000 Less</th><th></th><th>1000 More</th></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td>1212</td><td>2212</td><td>3212</td></tr></table> | 1000 Less |  | 1000 More |  |  |  |  |  |  |  |  |  |  |  |  | 1212 | 2212 | 3212 |
| Th                                                                                                                                        | H                 | T         | O        |      |                           |                        |                                                              |      |                               |      |                                                                                                                |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
|                                                                                                                                           |                   |           |          |      |                           |                        |                                                              |      |                               |      |                                                                                                                |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
| Th                                                                                                                                        | H                 | T         | O        |      |                           |                        |                                                              |      |                               |      |                                                                                                                |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
|                                                                                                                                           |                   |           |          |      |                           |                        |                                                              |      |                               |      |                                                                                                                |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
| 1000 Less                                                                                                                                 |                   | 1000 More |          |      |                           |                        |                                                              |      |                               |      |                                                                                                                |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
|                                                                                                                                           |                   |           |          |      |                           |                        |                                                              |      |                               |      |                                                                                                                |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
|                                                                                                                                           |                   |           |          |      |                           |                        |                                                              |      |                               |      |                                                                                                                |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
|                                                                                                                                           |                   |           |          |      |                           |                        |                                                              |      |                               |      |                                                                                                                |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
|                                                                                                                                           |                   |           |          |      |                           |                        |                                                              |      |                               |      |                                                                                                                |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
| 1212                                                                                                                                      | 2212              | 3212      |          |      |                           |                        |                                                              |      |                               |      |                                                                                                                |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
| <table><tr><td></td><td></td><td></td><td></td></tr></table>                                                                              |                   |           |          |      | $879 < 2126$<br>less than |                        | <table><tr><td></td><td></td><td></td><td></td></tr></table> |      |                               |      |                                                                                                                |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
|                                                                                                                                           |                   |           |          |      |                           |                        |                                                              |      |                               |      |                                                                                                                |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
|                                                                                                                                           |                   |           |          |      |                           |                        |                                                              |      |                               |      |                                                                                                                |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
| 2497                                                                                                                                      | 2508              | 3012      | 3521     | 3530 | 4002                      |                        |                                                              |      |                               |      |                                                                                                                |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |
| smallest                                                                                                                                  |                   |           | greatest |      |                           |                        |                                                              |      |                               |      |                                                                                                                |    |   |   |   |  |  |  |  |  |  |                                                                                                                                                                                                                                                                       |           |  |           |  |  |  |  |  |  |  |  |  |  |  |  |      |      |      |



## Negative Numbers



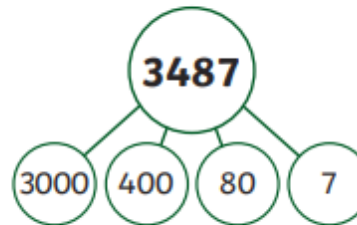
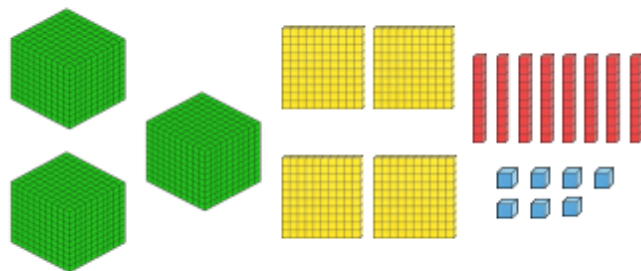
## Represent 4-Digit Numbers

3487

three thousand, four hundred and eighty-seven

| 1000s | 100s | 10s | 1s |
|-------|------|-----|----|
|       |      |     |    |

| Thousands | Hundreds | Tens | Ones |
|-----------|----------|------|------|
|           |          |      |      |



## Roman Numerals

|             |     |   |
|-------------|-----|---|
| one         | 1   | I |
| five        | 5   | V |
| ten         | 10  | X |
| fifty       | 50  | L |
| one hundred | 100 | C |

XVIII = 18

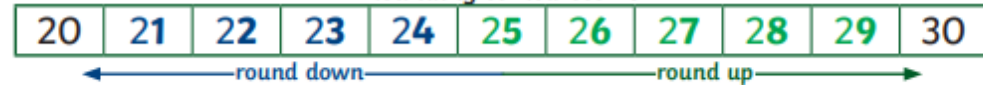
XXIX = 29

LXXXIV = 84

## Rounding

Look at the place value column to the right of the value you are rounding to. If this digit is a 4 or less, round down. If the digit is a 5 or more, round up.

Rounding to nearest 10



Rounding to the nearest 100



Rounding to the nearest 1000



## Key Vocabulary

Add

Total

Plus

Sum

More

Altogether

Difference

Subtract

Less

Minus

Take away

Mentally, Orally

Column Addition

Column Subtraction

Exchange

Estimate

Inverse operation

Solve problems

Number facts



## Addition and Subtraction Methods

### 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

$$\begin{array}{r} 61 \\ 5749 \\ -3471 \\ \hline 2278 \end{array}$$

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

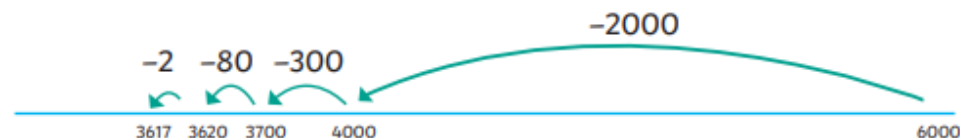
Multiple exchanges

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

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

### Efficient subtraction

Calculate  $6000 - 3617 = 2383$





# Addition and Subtraction

# Knowledge Organiser

## Add and Subtract 1s, 10s, 100s, 1000s

Here is the number 3124



Add 2 thousands = 5124

Add 5 hundreds = 5624

Subtract 2 tens = 5604

Add 5 ones = 5609

Here is the number 6708

| Thousands | Hundreds | Tens | Ones |
|-----------|----------|------|------|
| 6         | 7        | 0    | 8    |

Add 3 thousands = 9708

Subtract 4 hundreds = 9308

Add 5 tens = 9358

Subtract 7 ones = 9351

**Crossing ones, tens or hundreds**

5392 + 4 tens = 5432      crossing tens

5126 - 600 = 4526      crossing hundreds

When crossing ones, tens or hundreds, more than one digit will change.



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## Round to Estimate

$$1635 + 386 = 2021$$

Round to the nearest ten

$$1640 + 390 = 2030$$

Round to the nearest hundred

$$1600 + 400 = 2000$$

Both give a reasonable estimate, but rounding the nearest ten is more accurate.

$$9362 - 5729 = 3622$$

Round to the nearest hundred

$$9400 - 5700 = 3700$$

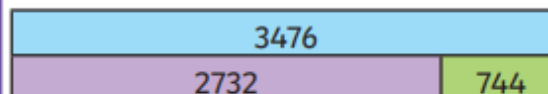
Round to the nearest thousand

$$9000 - 6000 = 3000$$

Rounding to the nearest hundred is much more accurate in this case.

## Checking Strategies

**Using Inverse**



$3476 - 744 = 2732$  can be checked using

$$2732 + 744 = 3476$$

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



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

**Adding in a different order**

$$420 + 372 + 280 =$$

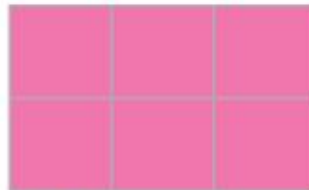
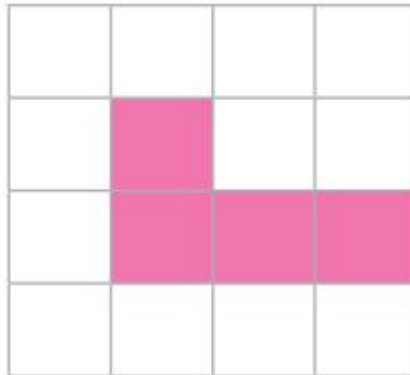
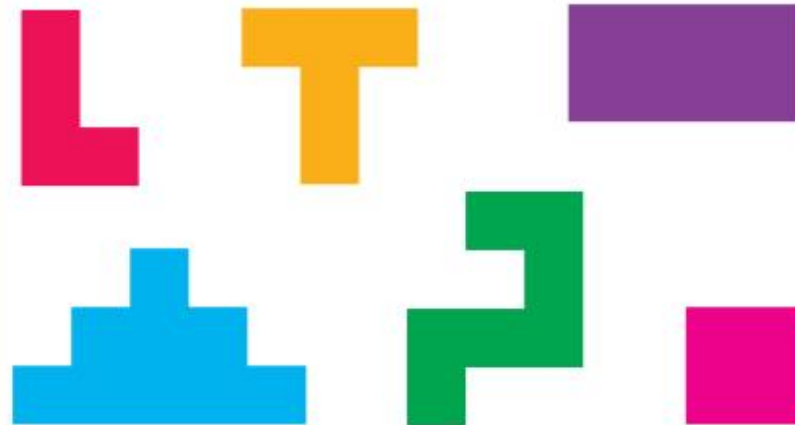
**Change to**

$$420 + 280 + 372 =$$

$$\text{As } 420 + 280 = 700$$

(because  $42 + 28 = 70$ )

$$420 + 280 + 372 = 700 + 372 = 1072$$

| Area and Perimeter                                                                                                                        |                                                                                                                                                                              | Knowledge Organiser                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |
|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Keywords                                                                                                                                  | Area and Perimeter                                                                                                                                                           | Measuring Area                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |
| area                                                                                                                                      | <b>Area</b> is the amount of space inside a 2D shape.                                                                                                                        | <div>We can count <b>squares</b> to find the <b>area</b> of a <b>rectilinear</b> shape.</div> <div><div><p>Area = 1 square</p></div><div><p>Area = 6 squares</p></div><div><p>Area = 4 squares</p></div></div> |  |
| perimeter                                                                                                                                 | <b>Perimeter</b> is the total <b>distance</b> around the outside of a 2D shape.                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| centimetres                                                                                                                               |                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| metres                                                                                                                                    |                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| squares                                                                                                                                   |                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| distance                                                                                                                                  |                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| millimetres                                                                                                                               |                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| Units of Measure for Perimeter                                                                                                            |                                                                                                                                                                              | Rectilinear Figures                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |
| kilometres                                                                                                                                | <div><div><b>km</b><br/><b>m</b><br/><b>cm</b><br/><b>mm</b></div><div>1 kilometre = 1000 metres<br/>1 metre = 100 centimetres<br/>1 centimetre = 10 millimetres</div></div> | <div>A <b>rectilinear</b> figure is a 2D shape whose sides all meet at <b>right angles</b> (90°).</div> <div></div>                                                                                                                                                                                                                                                                 |  |
| length                                                                                                                                    |                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| width                                                                                                                                     |                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| rectilinear                                                                                                                               |                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| right angle                                                                                                                               |                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
|                                                       |                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
|  visit <a href="https://www.twinkl.com">twinkl.com</a> |                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |



# Multiplication and Division

## Knowledge Organiser

### Key Vocabulary

### Multiplication and Division Facts

### Use Place Value to Multiply and Divide Mentally

multiply

groups of

lots of

times

divide

share

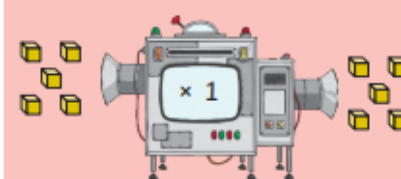
remainder

factor

multiple

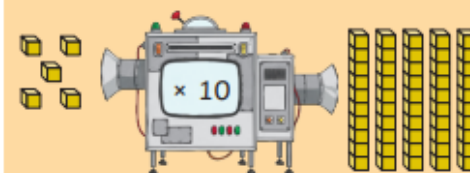
product

| x  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9   | 10  | 11  | 12  |
|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|
| 1  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9   | 10  | 11  | 12  |
| 2  | 2  | 4  | 6  | 8  | 10 | 12 | 14 | 16 | 18  | 20  | 22  | 24  |
| 3  | 3  | 6  | 9  | 12 | 15 | 18 | 21 | 24 | 27  | 30  | 33  | 36  |
| 4  | 4  | 8  | 12 | 16 | 20 | 24 | 28 | 32 | 36  | 40  | 44  | 48  |
| 5  | 5  | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45  | 50  | 55  | 60  |
| 6  | 6  | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54  | 60  | 66  | 72  |
| 7  | 7  | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63  | 70  | 77  | 84  |
| 8  | 8  | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72  | 80  | 88  | 96  |
| 9  | 9  | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81  | 90  | 99  | 108 |
| 10 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90  | 100 | 110 | 120 |
| 11 | 11 | 22 | 33 | 44 | 55 | 66 | 77 | 88 | 99  | 110 | 121 | 132 |
| 12 | 12 | 24 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 120 | 132 | 144 |



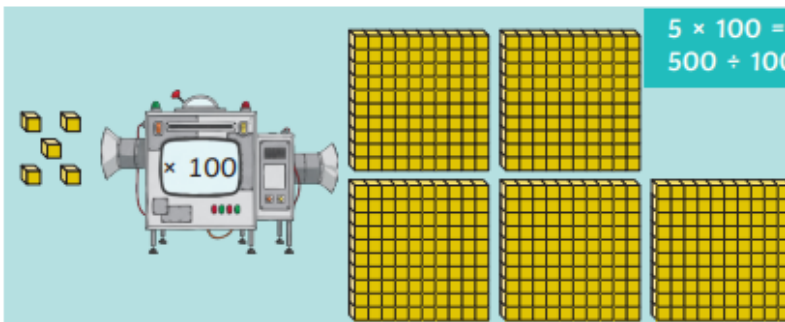
$$5 \times 1 = 5$$

$$5 \div 1 = 5$$



$$5 \times 10 = 50$$

$$50 \div 10 = 5$$

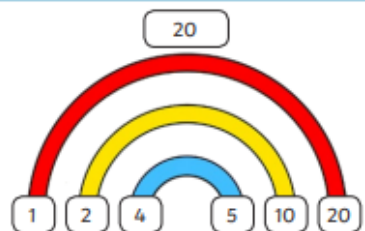


$$5 \times 100 = 500$$

$$500 \div 100 = 5$$

### Factor pairs and Commutativity

### Multiply Using Formal Written Methods



The factors of 20 are 1, 2, 4, 5, 10 and 20.

The factor pairs are:

1 and 20    2 and 10    4 and 5

$$5 \times 4 = 20$$

$$4 \times 5 = 20$$

| Th | H | T | O |
|----|---|---|---|
|    | 5 | 4 | 3 |
| x  |   |   | 4 |
|    |   | 1 | 2 |
|    | 1 | 6 | 0 |
| 2  | 0 | 0 | 0 |
| 2  | 1 | 7 | 2 |

$$(4 \times 3)$$

$$(4 \times 40)$$

$$(4 \times 500)$$

| Th | H | T | O |
|----|---|---|---|
|    | 5 | 4 | 3 |
| x  |   |   | 4 |
|    |   |   |   |
| 2  | 1 | 7 | 2 |
|    | 1 | 1 |   |

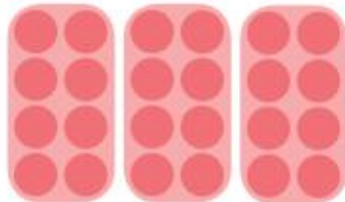
Remember to move any regrouped numbers into the next column. After the next multiplication, add the regrouped number to the answer.

## Mental Calculations for Solving Problems

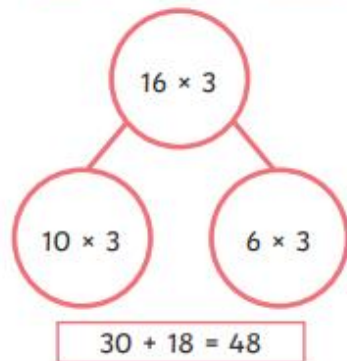
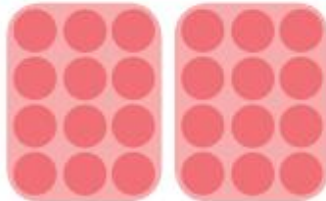
$$(2 \times 3) \times 4 = 24$$



$$(2 \times 4) \times 3 = 24$$



$$(3 \times 4) \times 2 = 24$$



## Integer Scaling Problems

10 pencils



$10 \times 4 = 40$  pencils



75g



$75\text{g} \times 2 = 150\text{g}$



## Short Division with Exact Answers

There are 69 tennis balls packed in tubes of 3.

There are 23 tubes altogether.

$$69 \div 3 = 23$$

$$\begin{array}{r} 23 \\ 3 \overline{) 69} \end{array}$$

|    |    |    |
|----|----|----|
| 69 |    |    |
| 23 | 23 | 23 |

