



Spring Term Knowledge Organisers

Year 5



What are these?

The following knowledge organisers are developed based on the progression documents for the subjects.

Every effort has been made to provide the learners with support for learning and understanding the essential skills in each aspect of the subject.

Children should learn to and understand the key vocabulary and should be utilising this in varying contexts.

The children should use opportunities to link these facts to other areas of learning and other areas of the curriculum.

Simply providing the children with these organisers will not support them in their learning. Their use will be specifically taught in school and the children must see these as a learning aid.

The knowledge organisers are developed to be double sided with each child having their own copy, which they annotate to help support them further and or use to track their progress.

Why use them?

Working memory - This is where thinking actually happens. It has a very finite capacity; it can only hold and process about four different items at a time. If it receives too much it fails.

Long-term memory - Long-term memory has huge – almost infinite – capacity. It is here that we store our knowledge of facts and procedures. The goal is to stock our long-term memories with knowledge in a well organised, easily retrievable way and make recall of key aspects automatic. This frees up the working memory for new information.

Cognitive load - This is the term used in cognitive science to describe how much capacity something takes up in the working memory. Cognitive overload is what happens if too many demands are placed on working memory at once.

The aim of the knowledge organisers is to improve the speed with which information is stored in the long term memory, thus improving the learners ability to develop deep learning in more areas of the curriculum.

How can these be used at home?

There are several ways that you can use knowledge organisers with children.

1. Look at the previous knowledge organiser to see how their learning is growing and see where there are links to what has already been learned.
2. Use it to look at what your child will be learning and share what you know about that topic.
3. Have the knowledge organisers on the fridge/appropriate place at home and use it to prompt discussion around the topic at home.
4. Help your child to research the topic and bring information in to school to share with their class.
5. Areas of the knowledge organisers are purposely blank so children can add information to support them further eg starring any aspects that they find tricky, adding any key sentences which they struggle with.
6. Vocabulary prompts – use the vocabulary bank to support children in utilising the correct topic related vocabulary.
7. Parents can challenge children to recall the appropriate information and explain what it means – but should be aware that the children will not know this from the start of the term.

How are they not to be used?

These provide a brief overview of what the children should securely know by the end of that year group. They should NOT be utilised as an end point assessment and links must be made to other areas of learning.

These knowledge organisers, are a starting point and will need to be adapted over time in response to the needs of the children.

Key Vocabulary

Factors

Prime Numbers

multiply

A factor is a number that divides into another number exactly, without leaving a remainder.



groups of



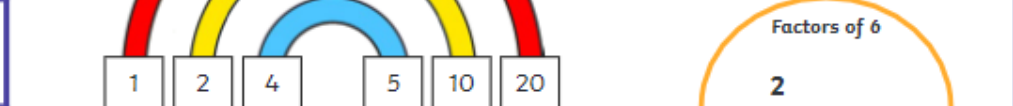
1 2 3 4 5 6 7 8 9 10
11 12 13 14 15 16 17 18 19 20
21 22 23 24 25 26 27 28 29 30
31 32 33 34 35 36 37 38 39 40
41 42 43 44 45 46 47 48 49 50
51 52 53 54 55 56 57 58 59 60
61 62 63 64 65 66 67 68 69 70
71 72 73 74 75 76 77 78 79 80
81 82 83 84 85 86 87 88 89 90
91 92 93 94 95 96 97 98 99 100

lots of

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

A common factor is a factor of 2 or more numbers.

times



Factors of 6
2 6
1 3
Factors of 15
5 15

divide

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

Factors of 6
2 6
1 3
Factors of 15
5 15

share

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

Factors of 6
2 6
1 3
Factors of 15
5 15

remainder

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

Factors of 6
2 6
1 3
Factors of 15
5 15

factor

Squared² and Cubed³ Numbers

Related Calculations

multiple



$8 \times 9 = 72$	$9 \times 8 = 72$
$80 \times 9 = 720$	$90 \times 8 = 720$

product

$2^2 = 4$	$2^3 = 8$	$5^2 = 25$	$5^3 = 125$
$2 \times 2 = 4$	$2 \times 2 \times 2 = 8$	$5 \times 5 = 25$	$5 \times 5 \times 5 = 125$

$72 \div 9 = 8$	$72 \div 8 = 9$
$720 \div 9 = 80$	$720 \div 8 = 90$

Key Vocabulary

numerator

denominator

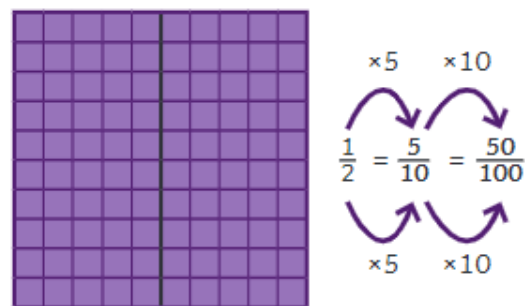
unit fraction

non-unit fraction

whole

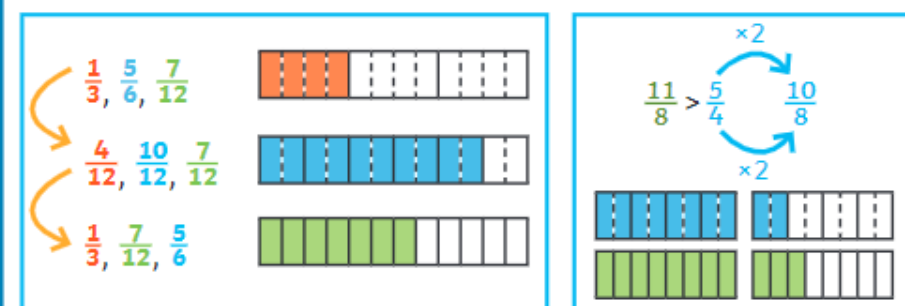
Equivalent Fractions

To find equivalent fractions, we multiply or divide the numerator and denominator by the same number.



Compare and Order Fractions

We can compare and order fractions by using common denominators.

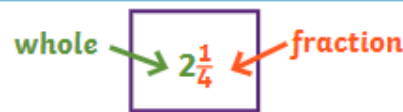


equivalent

Mixed Numbers

mixed number

Mixed numbers contain a whole number and a fraction.



Improper Fractions

An improper fraction has a numerator which is greater than or equal to the denominator.

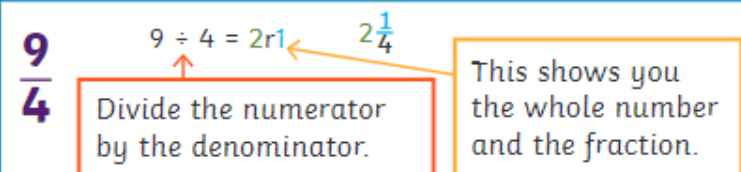
$$\frac{5}{3}$$

improper fraction

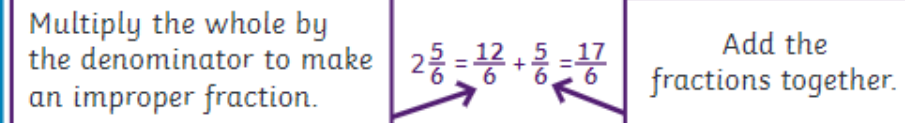
Convert an Improper Fraction to a Mixed Number

simplest form

multiple



Convert a Mixed Number to an Improper Fraction

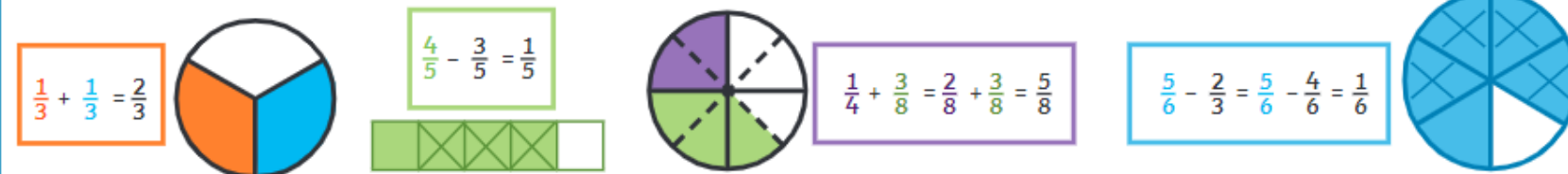


common denominator

Adding and Subtracting Fractions

common numerator

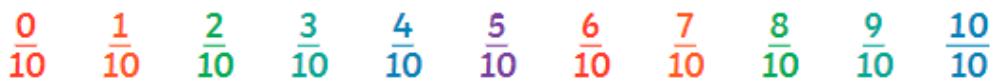
To add or subtract fractions with denominators that are multiples of the same number, we must change one fraction to have the same denominator.



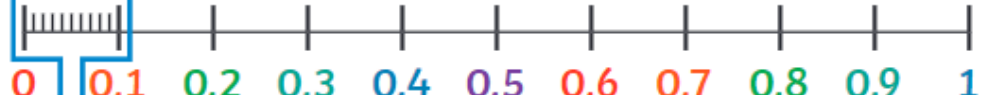
Decimals

Key Vocabulary

tenths



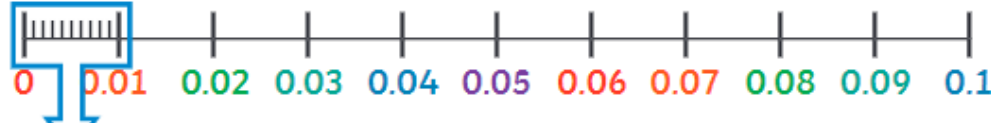
hundredths



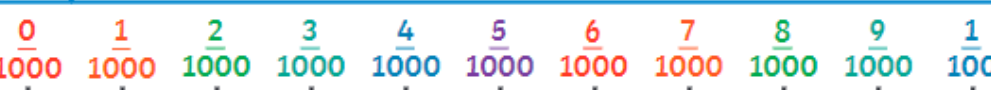
decimal tenths



decimal hundredths



decimal equivalents

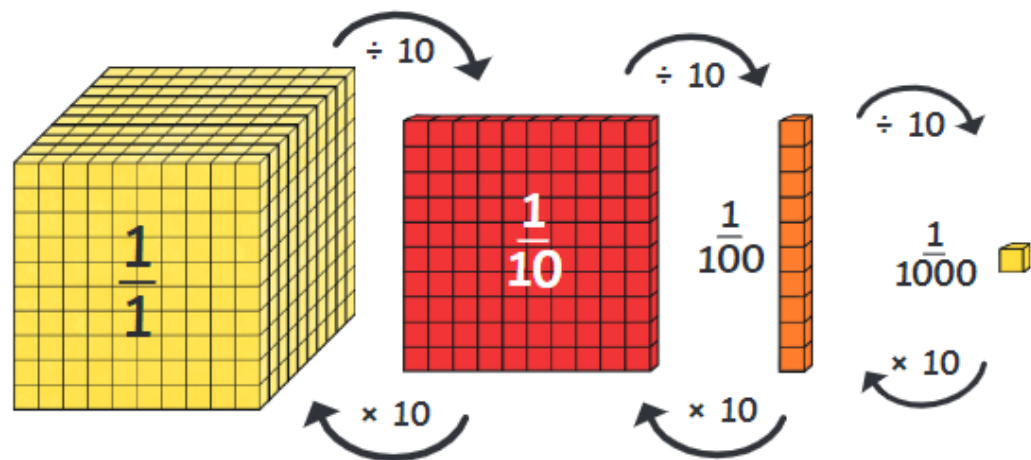


part-whole model

rounding

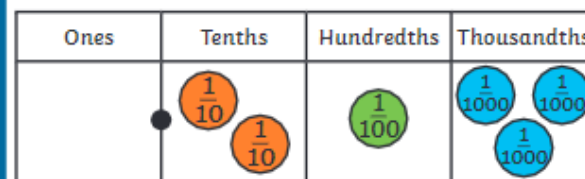
decimal point

place value

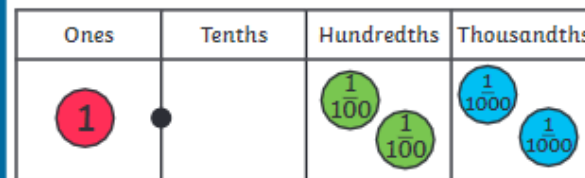


Knowledge Organiser

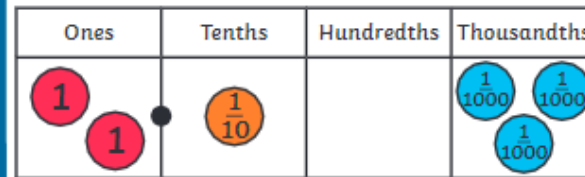
Order and Compare Numbers with Three Decimal Places



0 . 2 1 3



1 . 0 2 2



2 . 1 0 3

Decimal Numbers as Fractions

$$0.71 = \frac{71}{100} = \frac{7}{10} + \frac{1}{100}$$

$$0.37 = \frac{37}{100} = \frac{3}{10} + \frac{7}{100}$$

PSHCE Knowledge Organiser

Vocabulary	
Bullying	To cause repeated physical or emotional pain to someone
Bystander	Someone who watches something happening without getting involved
Cyberbullying	Bullying that happens through the internet
Permission	Allow someone to do a particular thing
Consent	Permission to allow something to happen or agreement to do something
Secret	Something that is not meant to be known or seen by anyone
Physical contact	Touching

There are many qualities which make a good friend.



Problems in friendships can be overcome and sometimes the friendship can be stronger afterwards.



Sometimes families experience problems and there are people who can help.



If we are worried about something which is happening to us or a friend, we should talk to an adult we trust.



Some people bully others because they have their own problems and they need help and support to overcome their problems.

If we are aware of bullying, it is important to try and help and not be a bystander.

Getting help

Talk to an adult you trust, this could be:

- someone at school e.g. teacher
- someone at home e.g. parent or older siblings
- another relative e.g. grandparent or aunty/uncle
- someone at a club or organisation you attend e.g. sports coach

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



Year 5 – spring term



The internet can be used for many things – entertain, inform, persuade, advertise. You need to recognise unsafe or suspicious content.

S IS FOR SAFE
Never give out personal information to strangers on the internet. Personal information includes things like your home address and your birthday.

M IS FOR NEVER MEET
Never ever meet up with a stranger you have met online unless a parent or guardian has said it is ok and is present. Never, never, never, never, never.

A IS FOR ACCEPTING
Don't open emails from people you don't know, they could contain viruses. If you get a strange email from a friend and you think they might have a virus make sure you let them know!

I IS FOR RELIABLE
Don't believe everything you read online, check your facts! Did you read it on a reliable website like the BBC? Are other websites saying the same thing? Does it tell you where they got the information from?

T IS FOR TELL
If you have an online safety problem, make sure you tell someone. Tell a parent, guardian, or teacher as soon you can.

We might not know people we meet online as well as those we have met in person. So we need to be careful with the information that we share with them.




THINK

Before sending online messages, remember:

- T - Is it true?
- H - Is it helpful?
- I - Is it inspiring?
- N - Is it necessary?
- K - Is it kind?



The Waste Hierarchy shows that reducing our use of materials and energy is the best thing of the environment

Recycling materials helps the environment by reducing rubbish in landfills and reducing the use of raw materials



Reusing things is better for the environment because it reduces waste and means less new things need to be made

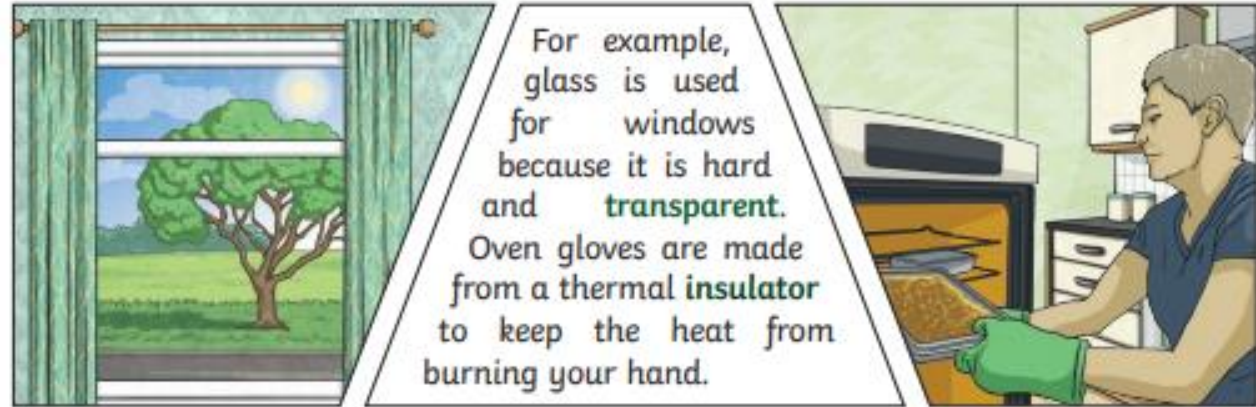
Year 5 Science Knowledge Organiser

Chemistry - Properties and Changers of Materials

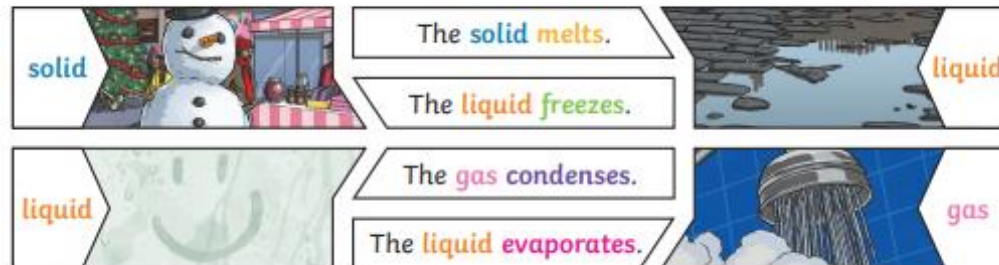
Key Vocabulary	
materials	The substance that something is made out of, e.g. wood, plastic, metal.
solids	One of the three states of matter. Solid particles are very close together, meaning solids , such as wood and glass, hold their shape.
liquids	This state of matter can flow and take the shape of the container because the particles are more loosely packed than solids and can move around each other. Examples of liquids include water and milk.
gases	One of the three states of matter. Gas particles are further apart than solid or liquid particles and they are free to move around. Examples of gases are oxygen and helium.
melting	The process of heating a solid until it changes into a liquid .
freezing	When a liquid cools and turns into a solid .
evaporating	When a liquid turns into a gas or vapour.
condensing	When a gas , such as water vapour, cools and turns into a liquid .

Key Knowledge

Different **materials** are used for particular jobs based on their properties: electrical **conductivity**, flexibility, hardness, **insulators**, magnetism, solubility, thermal **conductivity**, **transparency**.



Changes of State

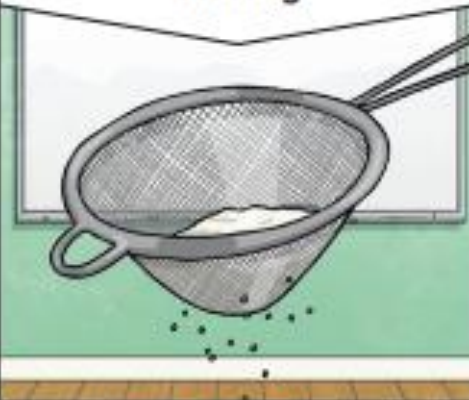




Key Vocabulary

conductor	A conductor is a material that heat or electricity can easily travel through. Most metals are both thermal conductors (they conduct heat) and electrical conductors (they conduct electricity).
insulator	An insulator is a material that does not let heat or electricity travel through them. Wood and plastic are both thermal and electrical insulators .
transparency	A transparent object lets light through so the object can be looked through, for example glass or some plastics.

Key Knowledge

Reversible changes, such as mixing and dissolving **solids** and **liquids** together, can be reversed by:

Sieving	Filtering	Evaporating
		
Smaller materials are able to fall through the holes in the sieve, separating them from larger particles.	The solid particles will get caught in the filter paper but the liquid will be able to get through.	The liquid changes into a gas , leaving the solid particles behind.

Dissolving

A solution is made when **solid** particles are mixed with **liquid** particles. **Materials** that will dissolve are known as soluble. **Materials** that won't dissolve are known as insoluble. A suspension is when the particles don't dissolve.

Sugar is a soluble **material**.



Sand is an insoluble **material**.



Irreversible changes often result in a new product being made from the old **materials** (reactants). For example, burning wood produces ash. Mixing vinegar and milk produces casein plastic.



The Viking and Anglo-Saxon struggle for England.

The Viking Age in Britain began about 1,200 years ago in the 9th Century CE and lasted for just over 200 years.

The Vikings came across the North Sea, just as the Anglo-Saxons had done 400 years earlier. In time, like the Anglo-Saxons, the Vikings made their home here. They drove the Saxons out of part of the country and took it for themselves.



Vikings worshipped many gods and told many stories. These drawings show how: Odin, Thor, Loki and Freya were believed to look.



Key Vocabulary

- Invaders
- Settlement
- Kingdom
- BC (Before Christ)
- BCE (Before Common Era)
- AD (Anno Domini)
- CE (Common Era)
- Norse
- Raid
- Longship

793 CE	First invasion by the Vikings. They raided monasteries on the coast including Lindisfarne, off the coast of Northumbria.
820 CE	Viking raids continue across English coast
821 CE	Wessex becomes Supreme Kingdom
865 CE	Great Viking Army from Denmark invades England
866 CE	Danes capture York (which the Vikings called Jorvik) and make it their kingdom (land ruled by a king)
871 CE	King Ethelred, the West Saxon king, and his brother Alfred, defeat the Viking army at the Battle of Ashdown (in Berkshire)
876 CE	Vikings from Denmark, Norway and Sweden settle permanently in England
886 CE	King Alfred the Great defeats the Vikings but allows them to settle in Eastern England (the Kingdoms of York and East Anglia) This area on England becomes known as Danelaw and is ruled by the Viking King Guthrum
954 CE	Eric Bloodaxe, the last Viking King of Jorvik, is thrown out of York
980 CE	New Viking Raids on England
994 CE	Olaf of Norway and Sven 'Forkbeard', son of the Danish king, lead an invading Danish army in an unsuccessful siege of London, and subsequently ravage the south-east
1014 CE	King Canute (Cnut) of Denmark captures the English Crown
1042 CE	Edward the Confessor becomes King (A Saxon King)
1066 CE	Norman Invasion



Viking longship.



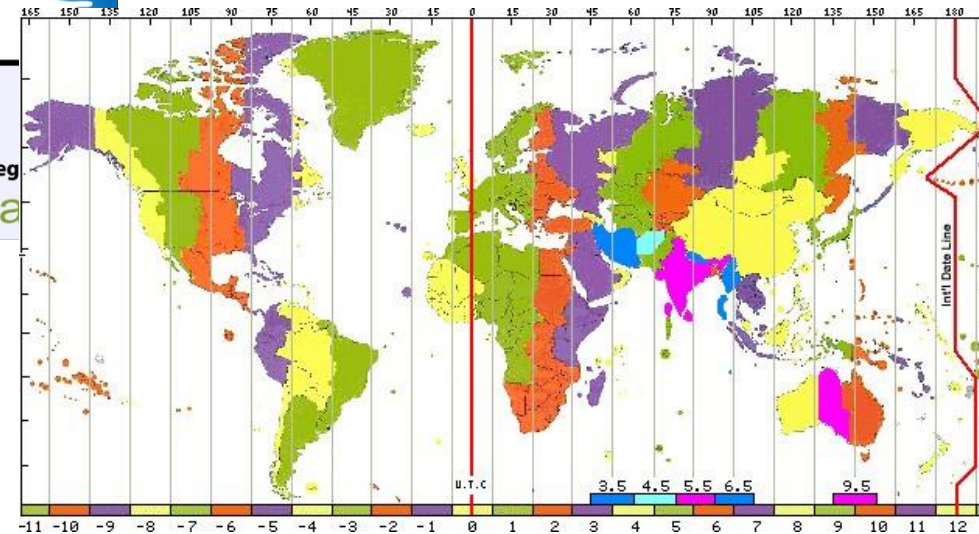
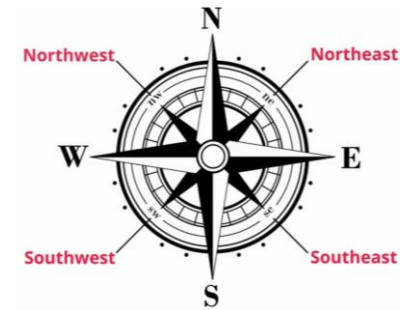
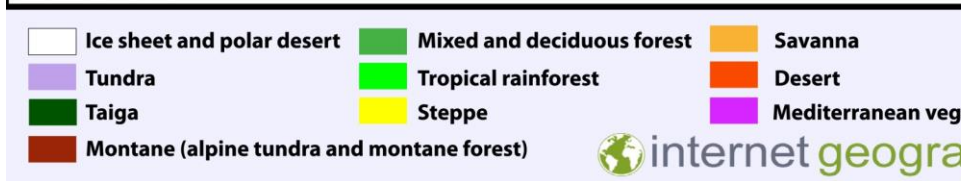
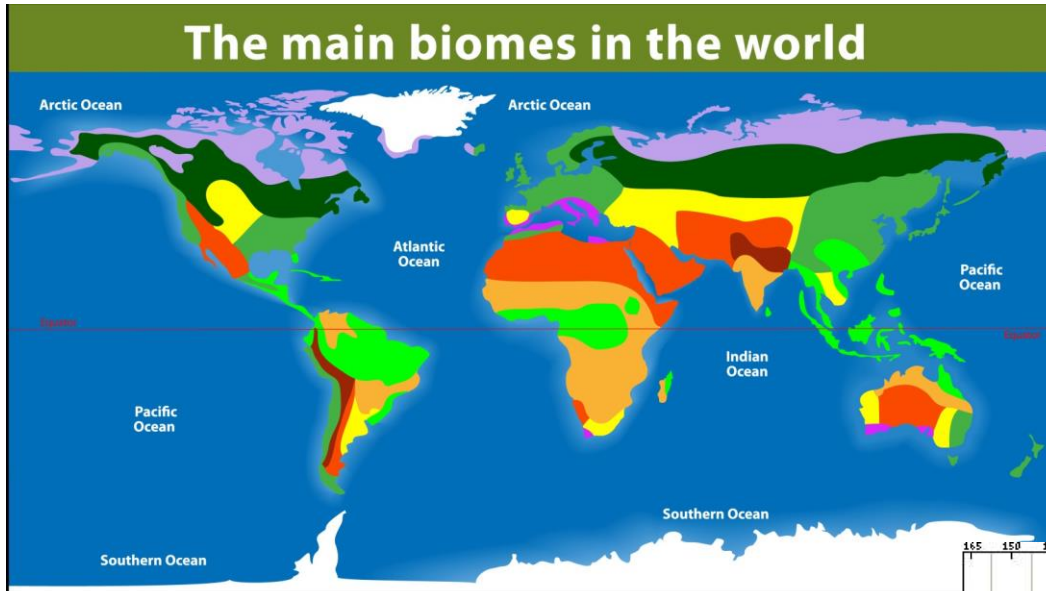
Excavated Viking weapons.



Year 5



Where could we go? Fantastic Journeys

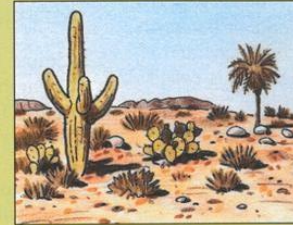


<p>The Great Barrier Reef</p> <p>The reef covers an area of 348,000 square kms. It is located in the Southern Hemisphere and can be found off the coast of Australia 18.287°S to 147.699°E. It is home to over 1,500 species of fish.</p>	<p>Chichen Itza</p> <p>Located in Mexico. 20.684°N, 88.567°W. The remains of an ancient city that was once the centre of the Mayan civilisation. It has also been called one of the new seven wonders of the world.</p>
<p>The Galapagos Islands</p> <p>As series of islands formed by the action of ancient volcanoes situated either side of the Equator in the Pacific. The islands are home to some unique wildlife and inspired Charles Darwin. You can find them at 0.953°S, 90.96°W.</p>	<p>The Great Wall of China</p> <p>One of the human features that can be seen from space. The Great Wall was built to defend China's border. It is located 40.431°N, 116.57°E.</p>
<p>Surtsey</p> <p>Is a new island only formed in 1963 by volcanic eruptions. It is a protected area, no one lives on it and so it is a very special place for wildlife. Surtsey is located 32 Km off the south coast of Iceland at 63.30°N, 20.6°W.</p>	<p>Mount Etna</p> <p>Mount Etna is the most active stratovolcano in the world. It is situated on the eastern coast of Sicily. It has been active for at least 2700 years. Located at 37.75°N, 14.99°E. It is located in the Mediterranean biome</p>

longitude	tropics	biome	habitat
latitude	vegetation	meridian	climate
UNESCO	characteristic	aquatic	regions

G

Guide to natural ecosystems (biomes)

**1 Hot desert**

Very high temperatures (up to 45°C) and little or no rainfall (below 500 mm). Mainly cacti, small, thorny bushes and the occasional date palm.

**2 Deciduous forest**

Cool winters, warm summers and moderate rainfall. Deciduous trees like oak and beech that lose their leaves in winter.

**3 Tropical rainforest**

High temperatures (up to 30°C) and high rainfall (up to 2,500 mm). Dense, luxuriant forest with a huge variety of trees and shrubs.

**4 Mediterranean**

Hot, dry summers (up to 30°C) and mild, wet winters (10–15°C). Scrub with small, stunted trees and bushes. Some open woodland.

**5 Tundra**

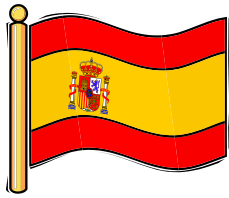
Very cold and dry. Winter temperatures below -10°C. Mainly mosses, lichens and poor grasses. Some dwarf trees like birch and alder.

**6 Grassland**

High temperatures (up to 30°C) but little rainfall (500–1,000 mm). Mainly grass with some scattered bushes and trees.

**7 Coniferous forest**

Cold winters and cool summers. Evergreen trees such as spruce and pine which keep their leaves all year.



uno * dos * tres * cuatro * cinco * seis * siete * ocho
nueve * diez

Buenos Días!

Good morning

¡Hola!

Hello

Buenas Tardes!

Good afternoon



SPANISH KNOWLEDGE ORGANISER

SPAIN

¿Cómo te llamas?

What is your name?

Me llamo ...

My name is ...

¿Qué tal?

How are you?

Muy bien!

Very well

Fatal!

Awful

Adíos!

Goodbye

Buenas Noches!

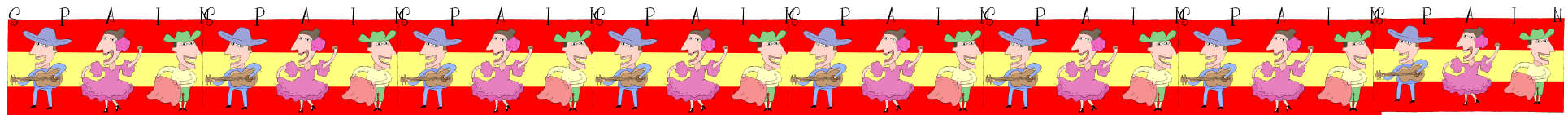
Goodnight

Hasta Luego!

See you later













lunes * martes * miércoles * jueves * viernes * sábado * domingo



Key Vocabulary - Classroom Instructions

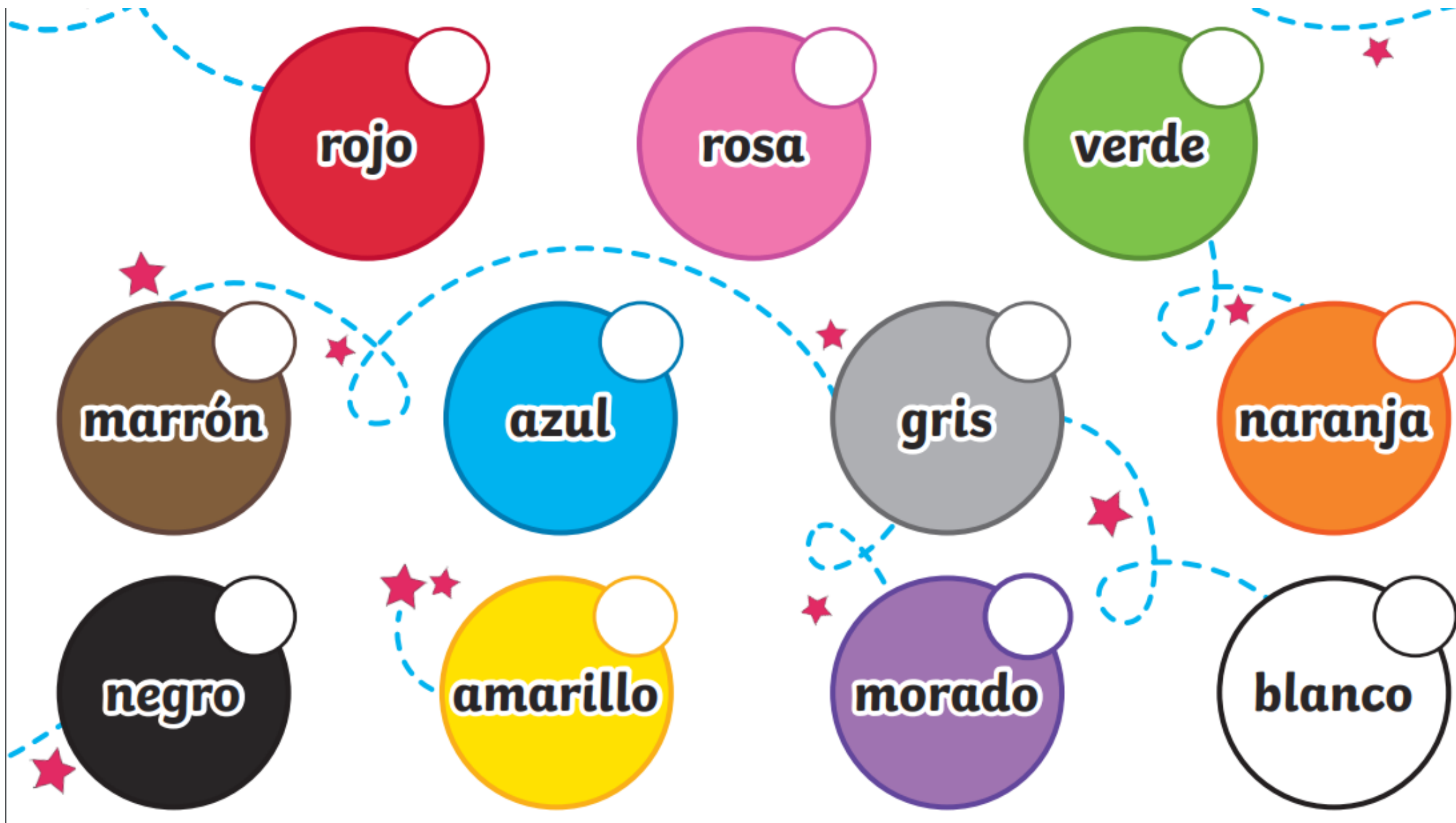
<p>¡Siéntate! Sit down!</p> 	<p>¡Levántate! Stand up!</p> 	<p>¡Arregla las sillas! Put your chairs under!</p> 	<p>¡Cállate! Be quiet!</p> 	<p>¡Escucha! Listen!</p> 
<p>¡Mira! Look!</p> 	<p>¡Mírame! Look at me!</p> 	<p>¡Ven a la alfombra! Come to the carpet!</p> 	<p>¡Repite! Repeat!</p> 	<p>¡Recoge la mesa! Tidy up the desk!</p> 

Key Vocabulary - Actions

<p>aplaude clap</p> 	<p>coge take</p> 	<p>pon put down</p> 	<p>salta jump</p> 	<p>corre run</p> 
<p>levanta la mano put your hand up</p> 	<p>baja la mano put your hand down</p> 	<p>patalea stamp your feet</p> 	<p>cruza los brazos cross your arms</p> 	<p>anda walk</p> 

Key Vocabulary - My Body





1 – Listen & Appraise: Make You Feel My Love (Pop)

Structure: Piano intro, verse 1, verse 2, chorus, verse 3, interlude, chorus, verse 4 with tag ending.

Instruments/voices you can hear: Strings, piano, guitar, bass, drums.

Can you find the pulse as you are listening? Is the tempo fast, slow or inbetween? Dynamics? Texture?

2 – Musical Activities using glocks and/or recorders

Warm-up games play and copy back using up to 3 notes – C, D + E.

Bronze: C | Silver: C + D | Gold: C, D + E challenge.

Which challenge did you get to?

Singing in unison.

Play instrumental parts with the song by ear and/or from notation using the easy or medium part. You will be using up to 3 notes – C, D + E.

Which part did you play?

Improvise using up to 3 notes – C, D + E.

Bronze: C | Silver: C + D | Gold: C, D + E challenge
Which challenge did you get to?

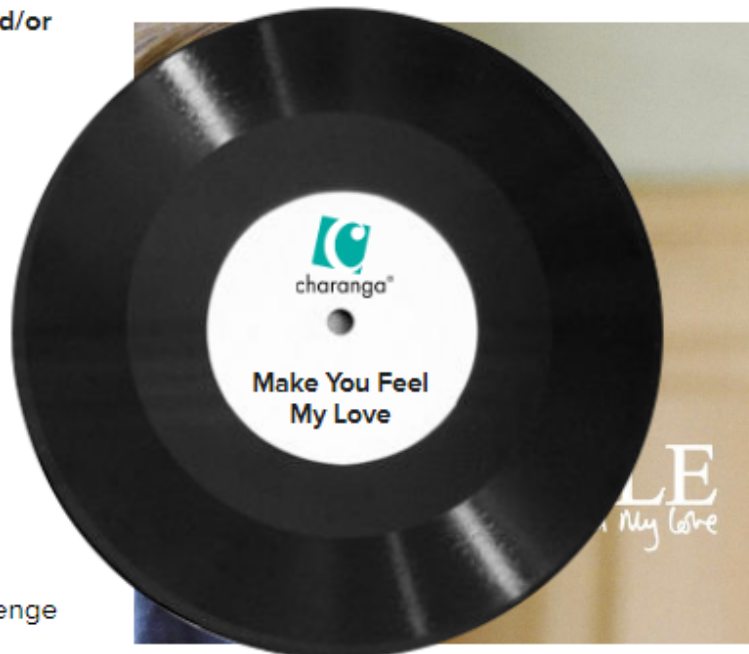
Compose a simple melody using simple rhythms choosing from the notes C, D + E or C, D, E, F + G.

3 – Perform & Share

Decide how your class will introduce the performance. Perhaps add some choreography? Tell your audience how you learnt this song and why. Record the performance and talk about it afterwards.

The performance will include one or more of the following:

Improvisations • Instrumental performances • Compositions



About this Unit

Theme: Pop ballads.

Facts/info: Make You Feel My Love is a Pop ballad – a gentle, emotive love song, sung at a slow tempo. It was written by Bob Dylan in 1997 and covered by Adele in 2008.

Listen to 5 other pop ballads

- Make You Feel My Love by Bob Dylan
- So Amazing by Luther Vandross
- Hello by Lionel Richie
- The Way You Look Tonight by Tony Bennett
- Love Me Tender by Elvis Presley

Vocabulary: Ballad, verse, chorus, interlude, tag ending, strings, piano, guitar, bass, drums, melody, compose, improvise, cover, pulse, rhythm, pitch, tempo, dynamics, timbre, texture, structure

Reflection

What did you like best about this Unit? Why? Was there anything you didn't enjoy about it? Why?

Did you have any strong feelings about it? Were you proud of yourself, happy or annoyed?

What are the 'style indicators' of a Pop ballad?

How do you know this is a Pop ballad?