Birchfield PRIMARY SCHOOL

Year 4 Curriculum Overview

Term 3.1

Enquiry Question	**Where are the European mountain ranges?**
Significant People	- Jack Tite
Class Texts	**Viking Voyagers – non-fiction** Around 1,200 years ago the legendary voyaging Norsemen set sail to raid and trade - the Viking Age had begun. Step back in time to find out what Viking life was like, how they travelled, where they traded and their rich mythology.
Reading	The children will start this term making predictions from the text. During this half term, the children will be consolidating their learning on 'retrieval' and 'literal comprehension.' They shall now be looking to answer much more advanced questions, justifying their answers with evidence from the text. Similarly, the children will also consolidate their previous learning on 'inference.' They shall be inferring how the characters in our new class text are feeling, presenting their ideas in a P.E.E format.
Writing	The children will begin this half term by learning how to write persuasive formal letters. The first letter shall be from the children to Mrs Hazeldine, with the following letters being linked to their class text. In doing this, the children will learn how to write formally, structuring their work in the style of a letter. They shall also be learning how to write using persuasive techniques such as: rhetorical questions, repetition, facts and statistics and emotive language. As the half term continues, the children will then learn how to write diary entries. They will be linked to our enquiry question and shall teach the children how to write informally, in the first person. They will teach the children how to write in a chatty style, speaking to the diary as if it was a friend/family member.
Maths	This half term, our focus will begin with decimals. To begin with, children will be recapping their number bonds to 100. They will then move onto learning

	how to make a whole from any of the tenths and hundredths using their number bonds to 10 and 100. Following this, children will move onto learning how to write decimal through the support of place value counters, as this will help them understand the value of each digit. They will also be learning how to compare, order and round decimals. Following their learning from fractions from the previous term, the children will be taught how to write ½ , ¼ and ¾ as decimals. The children will then move onto developing their understanding of pounds and pence using decimal notations and then onto converting between different units of money. They will continue learning about money and how to order, estimate and round money. They will also be learning how to use the four operations to solve money problems. Progressing to the end of this half term, the children will focus on the measurement of time. The children will develop their understanding of years, months, weeks and days along side hours, minutes and seconds. The children will develop their understanding of the relationships between these units if measurement and converting between them.
History	This half term, our focus will be History. In the Ancient Civilisations project, your child will learn about three of the earliest civilisations in the world; ancient Sumer, ancient Egypt and the Indus Valley civilisation. They will study the ancient Sumerian and ancient Egyptian civilisation in detail, to discover how crucial factors like water sources and farming helped them to develop and thrive. They will find out about important inventions and the growth of cities. They will also study the lives of different people in society, including the roles of kings and pharaohs.
Science	Our Science topic this half term shall be 'Electrical Circuits and Conductors.' Within this project, your child will learn about the importance of electricity to our daily lives and the two sources, mains electricity and cells or batteries. They will discuss the dangers of mains electricity and safety measures and will learn about a range of electrical components such as, cells, batteries, wires, lamps, buzzers and motors. These devices will then be used to construct series circuits, exploring the effect of adding and removing different elements.

Art	During this half term, the children will be introduced to the Renaissance period and the typical style of art. The children will explore some of Da Vinci's artwork and comment on this. They will understand that females were typically the subject of art and males were the creators. Children will use their learning from across the unit to create a portrait of a Roman figure. They will be creating the shape of the face, eyes, hair applying what they have been taught. They will then complete their portrait by adding the finer details to the portrait.
Music	During their music lessons, the children will continue their learning on Charanga. They will learn a Soul/Gospel Song by Bill Withers. All the learning is focused around one song: Lean On Me. The material presents an integrated approach to music where games, the interrelated dimensions of music (pulse, rhythm, pitch etc.), singing and playing instruments are all linked. Throughout the unit the children will be encouraged to keep focused on musical learning through the integration of musical learning and practise.
Computing	The computing lessons this half term will focus on data logging. The children will consider how and why data is collected over time and understand how computers can monitor the environment over time. The children will collect and access data, captured over long periods of time. The children will use a device to review and analyse data as well as pose questions and use data loggers to answer the questions.
PSHE	In PSHE, we will be looking at 'Living in the wider world'. This focuses on how people have a shared responsibility to help protect the world around them, e.g., caring for others, animals, and the environment.
RE	In RE, we will be focusing on the unit of 'Living by the Rules', this unit focuses on the religious teachings of Christianity, Islam and Judaism. The children will learn why following rules is so important and the different ways the followers live by rules.
PE	In the first half of the summer term the children will be learning how to play tennis. They will develop skills such as ready position, racket control and forehand and backhand ground strokes. They will learn how to score points and how to use skills, strategies and tactics to outwit the opposition.

Teaching Team:

Miss Fisher, Mr Barnes, Miss Beck

SLT: Mr Mazhar

PE Days: Thursday

Homework: Tuesday & Friday

Please see below an overview of the main themes, knowledge and skills we will be covering this half term.

Subject Specific Vocabulary

archaeologist	People who work out our history by looking at artefacts that have been found.
raids	A sudden armed attack against it, with the aim of causing damage rather than occupying any of the enemy's land.
vicious	To be intentionally harmful or nasty. Vikings warriors were known to be vicious.
longhouse	A large hall like building where many Viking families would live together.
berserkers	Warriors that went to war wearing wolf or bear skins. They were out of control and charged fearlessly. The word 'berserk' came from it.
longship	The narrow boat used by Vikings to raid along coasts.
Odin	One of the most famous Viking Gods known for wisdom.
Scandinavia	The name given to the collection of countries: Denmark, Norway and Sweden.
Danelaw	The name given to lands in Britain occupied by the Vikings.
misconception	This means mis-understanding. In Viking terms there were many misunderstandings about the Vikings.
Jorvik	The Viking name for the city of York. York now has a famous Viking museum called Jorvik.

Sticky Knowledge about the Vikings

- ❑ Not all Vikings were warriors. Many came in peace and become farmers.
- ❑ The lands that the Vikings occupied were known as Danelaw.
- ❑ Not many Vikings, if any, wore horns in their helmets.
- ❑ Vikings spoke Norse, which had an alphabet made up of runes.
- ❑ Longships were designed to sail in both deep and shallow water so that they could get close to the shore so they could not be easily seen.
- ❑ Vikings were pagans and often raided monasteries, looting gold.
- ❑ The most important Viking British city was York or Jorvik as it was known by the Vikings.

Exciting Books

Days of the week

The names for most of the days of the week originate from Vikings.

Monday – linked to the moon by the name Mani – Norse for Moon.

Tuesday named after the Viking God of War – Tyr.

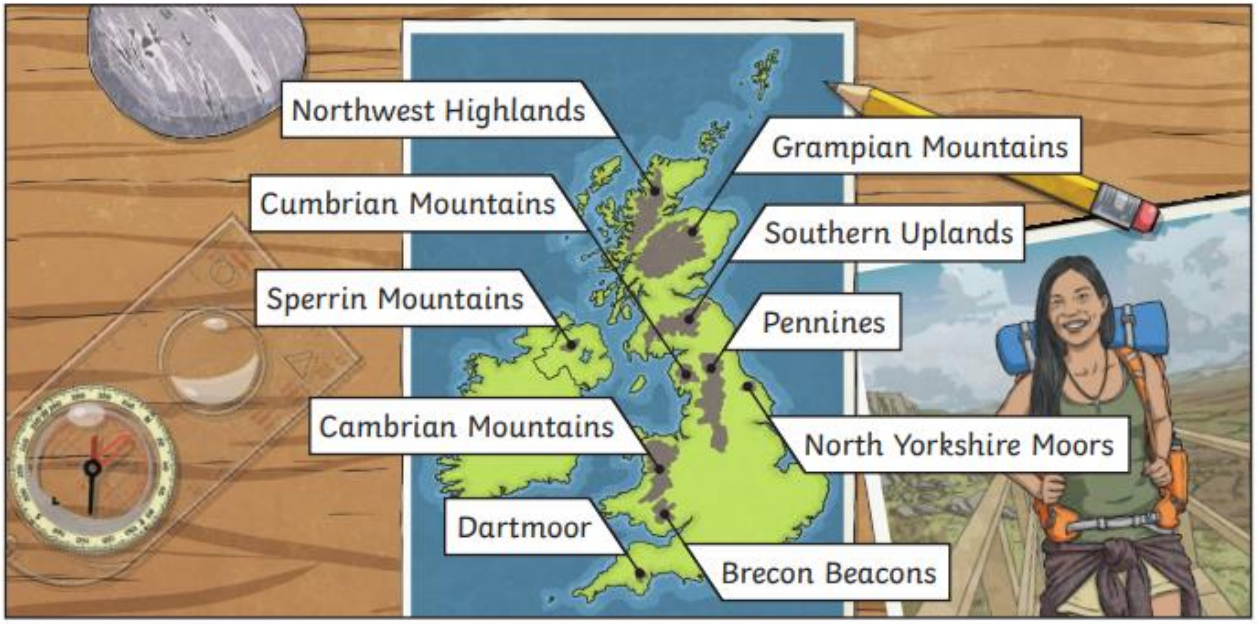
Wednesday – named after Woden.

Thursday – named after Thor, the God of thunder.

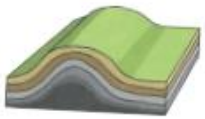
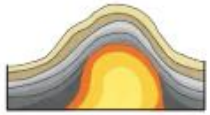
Key Vocabulary	
altitude	The height above sea level.
avalanche	A large amount of snow that quickly moves down a mountain or slope.
crust	The outermost layer of the earth.
gorges	A narrow valley with steep walls, found between hills or mountains.
hypothermia	A serious condition when the body gets too cold and can't warm itself up.
lava	Hot, liquid rock that flows from a volcano.
magma	Hot, liquid rock located deep below the earth's surface.
summit	The highest point of a mountain.
tectonic plate	Pieces of the earth's crust connected together.

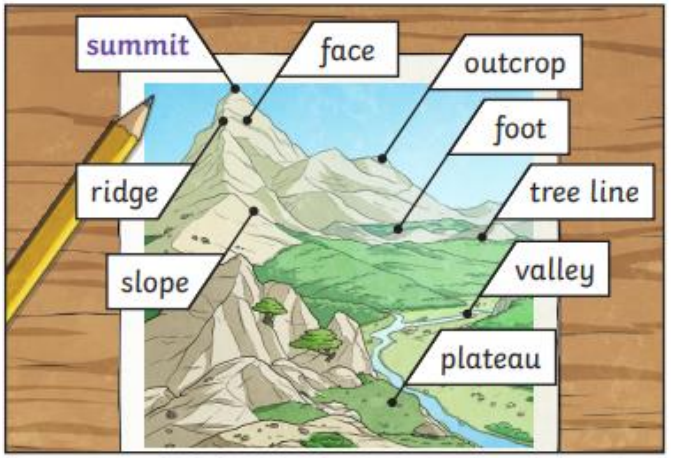
Mountains

- Mountains are a natural part of the landscape with steep slopes.
- They rise above 300m.
- They have a summit of at least 600m.
- Some mountains are found in groups called a mountain range but some mountains can be on their own.
- Not all mountains are single summits.
- Mount Everest is the highest mountain in the world – 8848m.



How Are Mountains Made?

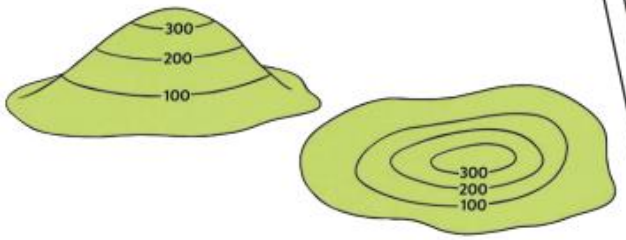
Fold mountains	Fault-block mountains	Volcanic mountains	Dome mountains	Plateau mountains
Tectonic plates collide and rock is pushed up.	Cracks in the earth's surface open up, some chunks of rock are pushed up, some down.	Formed around volcanoes and made of layers of ash and cooled lava.	Formed when magma is forced upwards but doesn't ever flow out of the crust.	Materials taken away through erosion leave deep valleys or gorges next to high cliffs.
				
				



Why Do People Visit Mountains?

- The view
- Keeping fit
- The challenge
- Skiing
- Climbing
- Photography

Contour Lines



These lines on a map join land that is at the same height.

They are usually marked in 5m or 10m intervals.

The closer the lines are together, the steeper the slope will be.

Risks and Dangers of Mountains

- Low temperature = hypothermia
- Bad weather = power cuts/road accidents
- Avalanches/landslides
- Altitude sickness
- Wild animals
- Poor access

Electricity: Electrical Circuits and Conductors

Electricity is a form of energy used to power many everyday items, such as kettles and mobile phones. It is essential to our daily lives. Lighting buildings, watching television, using computers, cooking meals and keeping in touch with family and friends all rely on electricity.

Glossary

electricity	The flow of an electric current through a material, e.g. from a power source through wires to an appliance.
appliances	A piece of equipment or a device designed to perform a particular job, such as a washing machine or mobile phone.
battery	A device that stores electrical energy as a chemical.
circuit	A pathway that electricity can flow around. It is based around wires and a power supply. Examples of components (parts) you can add in to a circuit are bulbs, switches, buzzers and motors.
mains electricity	Electricity supplied through wires to a building.
electrical conductor	A conductor of electricity is a material that will allow electricity to flow through it.
electrical insulator	Materials that are electrical insulators do not allow electricity to flow through them.
resistance	The ability of a conductor to oppose the flow of electric current

Sources of Electricity

Electricity comes from two sources, mains electricity and cells. Mains electricity is used when we turn on a light switch or plug an electrical appliance into a socket. Cells contain chemicals that create electrical energy. They are usually used to power small, portable devices, such as torches. A battery is made of two or more cells.

Power stations generate most of the mains electricity we use. Electricity travels through overhead and underground wires, known as power lines, to buildings, including homes, shops, offices and factories.

mains electricity

cell

battery

Power Station

Components

All electrical items are made up of components, which make them work.

Cell

Normally, we would call this a battery but scientifically, this is a cell. Two or more cells joined together form a battery.

Bulb

Lights up in a complete circuit.

Buzzer

Makes a noise in a complete circuit.

Wires

Used to connect the different components in the circuit together.

Motor

Produces movement in a complete circuit.

Switch

Used to turn other components in the circuit on or off.

Components have different jobs. A cell and battery provide electrical power. A wire connects different components and conducts electric current. A lamp emits light. A switch makes or breaks a circuit. A buzzer makes a sound. A motor creates movement.

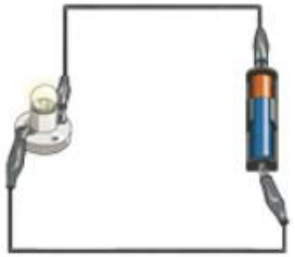
Circuits

Series Circuit

A circuit where the components are connected in a loop. Electricity flows through each component in a single pathway.

Complete Circuit

Electricity can flow. The components will work.



Incomplete Circuit

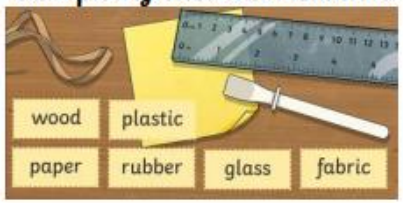
There is a break in the circuit that prevents the electricity from flowing. The components will not work.

Conductors & Insulators

Electrical conductivity is a measure of a material's ability to allow an electric current to pass through it. Materials that allow an electric current to pass through them are conductive. They are known as **electrical conductors** and have low resistance. Materials that do not allow an electric current to pass through them are non-conductive. They have high resistance. Many non-conductive materials, such as plastic, are used as electrical **insulators**.

Examples of electrical conductors

Examples of electrical insulators

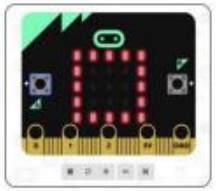


Programmable Technologies

Programmable technologies are devices that can operate automatically by following a set of instructions that have been programmed into them. Robotic vacuum cleaners, microwaves and washing machines are examples of programmable technologies. People input instructions into a device then the device performs tasks independently.

Micro:bit

A micro:bit is a small, programmable computer with an LED display, buttons and sensors. Micro:bits can be programmed to carry out a sequence of instructions.



Future of Electricity

At the moment, most mains electricity is made by burning fossil fuels, such as coal, oil and gas, which pollute the environment. Fossil fuels are also running out, so alternative forms of renewable energy are needed. Renewable energy includes solar power, wind power and geothermal energy. People can also help to save electricity by turning off lights and appliances when not in use or using low energy, LED light bulbs

Glossary

LED	Light-emitting diode. A device that emits light when part of a complete circuit.
renewable	Something that can be used and then easily replaced.

Knowledge Organiser – Lean On Me – Year 4, Unit 4

charanga MUSICAL SCHOOL

1 – Listen & Appraise: Lean On Me (Soul/Gospel)

Structure: Intro, verse 1, chorus, verse 2, bridge, chorus, bridge, verse 3, outro.

Instruments/voices you can hear: Male vocal, backing vocal, piano, bass, drums, organ.

Can you find the pulse as you are listening? Dance, clap, sway, march, be an animal or a pop star.

2 – Musical Activities using glocks and/or recorders

Warm-up games play and copy back using up to 2 notes – F + G.
Bronze: no notes | Silver: F, sometimes G | Gold: F + G 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 4 notes – C, E, F + G.
Which part did you play?

Improvise using up to 3 notes – F, G + A.
Bronze: F | Silver: F + G | Gold: F, G + A challenge.
Which challenge did you get to?

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

3 – Perform & Share

Decide how your class will introduce the performance. 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: Soul/Gospel music and helping each other.

Facts/info: Lean On Me is a soul song written by Bill Withers in 1972. The song has been covered and interpreted as a Gospel song because of its lyrics.

Listen to 5 other soul/gospel songs:

- He Still Loves Me by Walter Williams and Beyoncé
- Shackles by Mary Mary
- Amazing Grace by Elvis Presley
- Ode To Joy Symphony No 9 by Beethoven
- Lean On Me by The ACM Gospel Choir

Vocabulary: Unison, by ear, notation, improvise, melody, pitch, rhythm, pulse, composition, backing vocal, piano, bass, drums, organ, pulse, rhythm, tempo, dynamics, texture structure, compose, improvise, hook, riff, melody, solo

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?

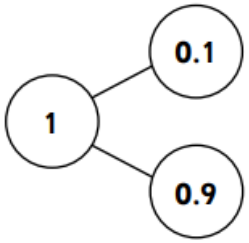
Year 4 Decimals B Knowledge Organiser

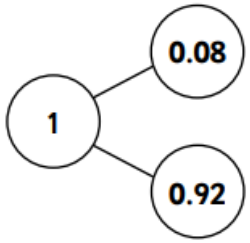
Maths

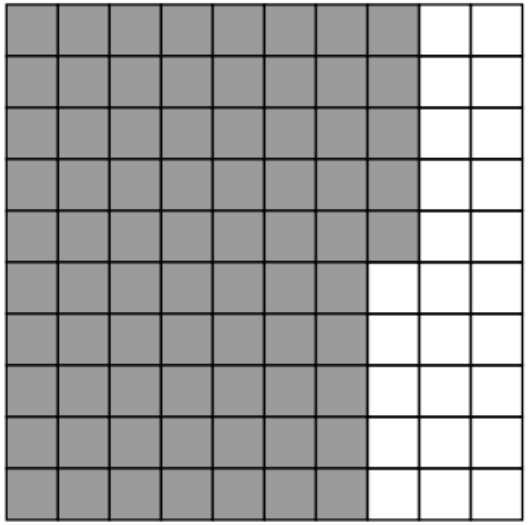
Key vocabulary: tenths, hundredths, equivalents, part-whole, bar model, decimal point, rounding, number bonds, place value

Tenths and hundredths to a whole

This bar is split into ten equal parts.
The whole bar is equivalent to 1 whole.
Each part is worth 1 tenth.
0.4 + 0.6 = 1







This hundred square is worth 1 whole.

Each part is worth 1 hundredth.

0.75 + 0.25 = 1

tens	ones	tenths	hundreths
	0	5	4

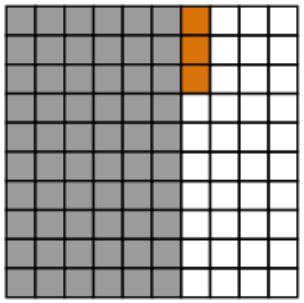
0.54 = 0.5 + 0.04

1	
0.64	0.36

Value of a digit

0.3**9** → 0.09
3.45 → 3
0.**7** → 0.7

Flexible partitioning of decimals

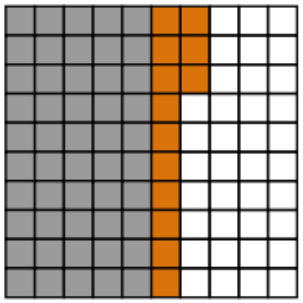


Standard partitioning

0.6 + 0.03

6 tenths are shaded grey.

3 hundredths are shaded orange.



Flexible partitioning

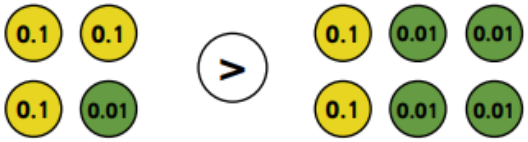
0.5 + 0.13

5 tenths are shaded grey.

13 hundredths are shaded orange.

The total overall is the same in both of these diagrams.

Compare and order decimals



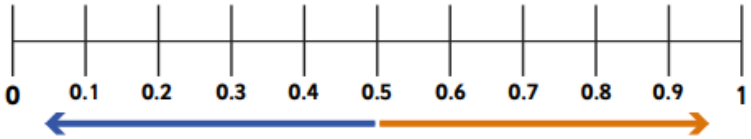
0.31 is greater in value than 0.24.

3 tenths is greater than 2 tenths.

0.45 0.54 0.63 0.78 0.94

These decimals are in ascending order.

Round to the nearest whole number



0.1 0.2 0.3 0.4 all round down to the nearest whole number (0)

0.5 0.6 0.7 0.8 0.9 all round up to the nearest whole number (1)

Money

Maths

Y4

Key Vocabulary:

pence, penny, pounds, notes, amount, total, change, value, estimate, convert,

Write money using decimals

There are £8 and 47 pence.
To write this as a decimal we put a point between the pounds and the pence.

£8.47

Calculate with money

If I wanted to know the exact cost, partitioning could be used.

£3.95 + £1.03

First, add the pounds

£3 + £1 = £4

Next, add the pence

95p + 3p = 98p

Total these two amounts

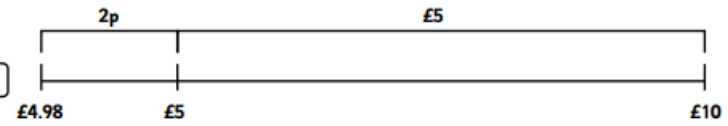
£4.98 or 4 pounds and 98 pence

Finding change

If I bought a copy of the book and a drink with a £10 note

How much change would I get?

We could use a number line to help us count up to work out the change given.



I would get £5 and 2p change.

Convert between pounds and pence

There are 100 pennies in £1.
100 pence = £1

£2 = 200 pence
£5 = 500 pence
£10 = 1,000 pence

£2.50 = 250 pence
£5.25 = 525 pence
£10.75 = 1,075 pence

Compare amounts of money

£5.28	<	582p
£4 and 25 p	=	425p
1,004p	>	£10.00

Estimate with money

£3.95 is very close to £4
£1.03 is very close to £1
To estimate how much it would cost us to buy these two items, we could add £4 and £1.
This would not give us an exact answer but it would give us a good estimate of how much it would cost. This is a skill that is good to use when shopping and buying lots of different items on a budget.

Time Knowledge Organiser

Maths | Y4

Time conversions

60 seconds = 1 minute

60 minutes = 1 hour

24 hours = 1 day

7 days = 1 week

4 weeks (+2/3days) = 1 month

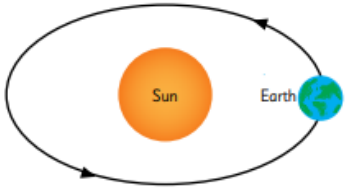
365 days = 1 year

52 weeks = 1 year

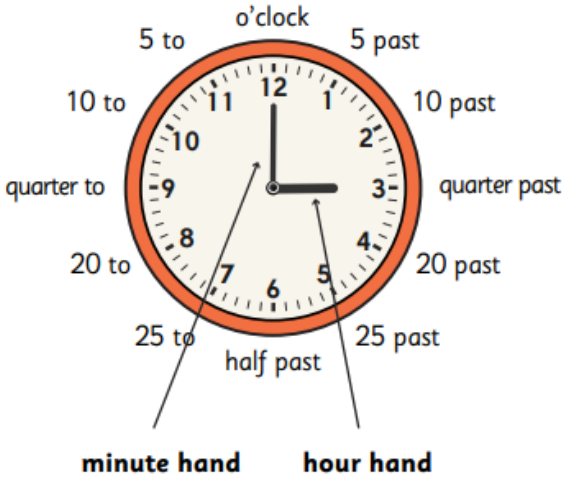
12 months = 1 year

Forming Shapes

February usually has 28 days, however every 4 years, when there is a leap year, there are 29 days in February. Leap years were created to keep the 365-day calendar year in sync with the time it takes Earth to orbit the Sun.



Forming Shapes



A poem to help us remember the number of days in each month.

Thirty days hath September, April, June and November,

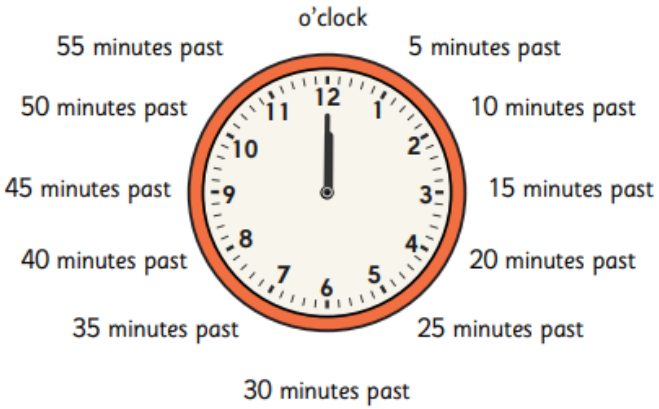
All the rest have thirty-one, but February's twenty-eight,

The leap year, which comes once in four, gives February one day more.

Time Knowledge Organiser

Maths | Y4

Analogue to digital



Analogue to digital

= 7:30 p.m.

12-hour and 24-hour clock

1:00 p.m.	13:00	7:00 p.m.	19:00
2:00 p.m.	14:00	8:00 p.m.	20:00
3:00 p.m.	15:00	9:00 p.m.	21:00
4:00 p.m.	16:00	10:00 p.m.	22:00
5:00 p.m.	17:00	11:00 p.m.	23:00
6:00 p.m.	18:00	12:00 a.m	00:00

Home Learning and Useful Links:

Atom learning

At the end of each week, your child will have homework to complete on Atom learning. They will have three pieces including reading, SPAG and Maths. Please ensure your child is logging on and completing their atom learning homework.

Spellings

These are words your child will be using daily and will need to be familiar with. We will also be sending home words with your children that are key in Year 3 and 4.

Please encourage your child to practise their spellings at the weekend and across the course of the week, as they will be tested on these at the end of each week.

Times tables

Each week, your child will receive a sheet of times tables to help prepare them for the Y4 Multiplication Check.

Please encourage your child to practise these times tables ready for a small test at the end of the following week.

Your child should be to completing at least 5 minutes of times table practice daily.

Please use the website below

Times Table Multiplication Check Website:

https://www.timestables.co.uk/multiplication-tables-check/

Reading:

At the end of each week, your child will also come home with a reading book.

Please encourage your child to read this book regularly and listen to them read when you can.

Within their reading diary, we ask that you please make a comment on how your child has read, whether they are enjoying their book or even any questions you may have asked them and discussed about their story.

Both the reading book and reading diary need to be returned to school by Wednesday.

Reading:

Oxford Owl for School and Home

Reading and comprehension - English - Learning with BBC Bitesize - BBC Bitesize

Books for Year 4 children aged 8-9 | School Reading List

Phonics:

Letters and Sounds, English Games for 5-7 Years - Topmarks

PhonicsPlay

Phase 2 Games – Letters and Sounds (letters-and-sounds.com)

Writing:

Year 4 English - BBC Bitesize

Writing in Year 4 (age 8–9) - Oxford Owl for Home

Spelling and Grammar, English Games for 7-11 Years - Topmarks

Maths:

Year 4 Maths Curriculum Toolkit | 8 & 9 Year Olds | Home Learning (thirdspacelearning.com)

Key Stage 2 Maths - Topmarks Search

https://www.timestables.co.uk/multiplication-tables-check/

Science:

Electricity - KS2 Science - BBC Bitesize

What is electricity? - BBC Bitesize

History/Geography:

Ancient Egypt - KS2 History - BBC Bitesize

History KS2: Introducing Ancient Sumer - BBC Teach

Computing:

Is my child safe online? Parent's questions answered | Barnardo's (barnardos.org.uk)

Parents and Carers - UK Safer Internet Centre

Parental Controls & Privacy Settings Guides | Internet Matters

PSHE:

Talk PANTS & Join Pantosaurus - The Underwear Rule | NSPCC

How to make an emergency 999 call – West Midlands Ambulance Service University NHS Foundation Trust (wmas.nhs.uk)

PE:

Nutrition Based Physical Activity Games - Action for Healthy Kids

Kids Active Learning & PE at Home – Think Active