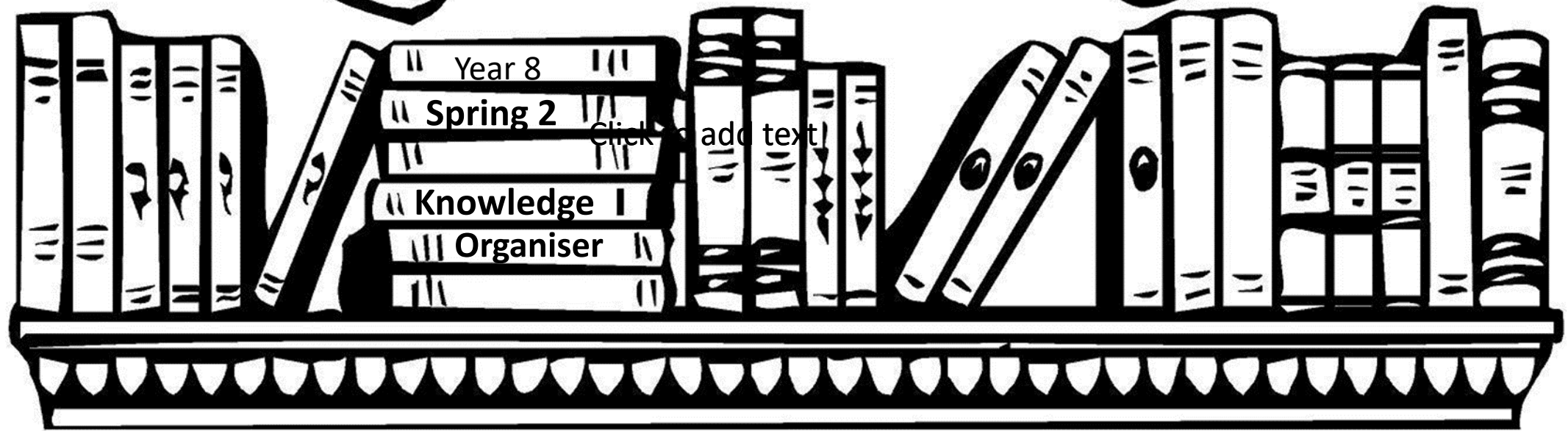


Knowledge




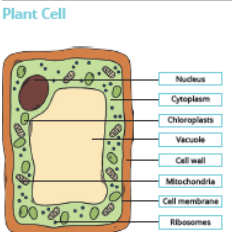
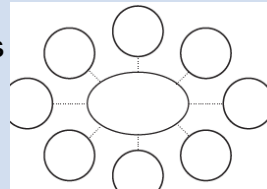




is power

Just reading through your books or a knowledge organiser is not always an effective way to revise. Instead, you should do something with the information. Choose an example of the revision methods on the pages or see if you can come up with another method.

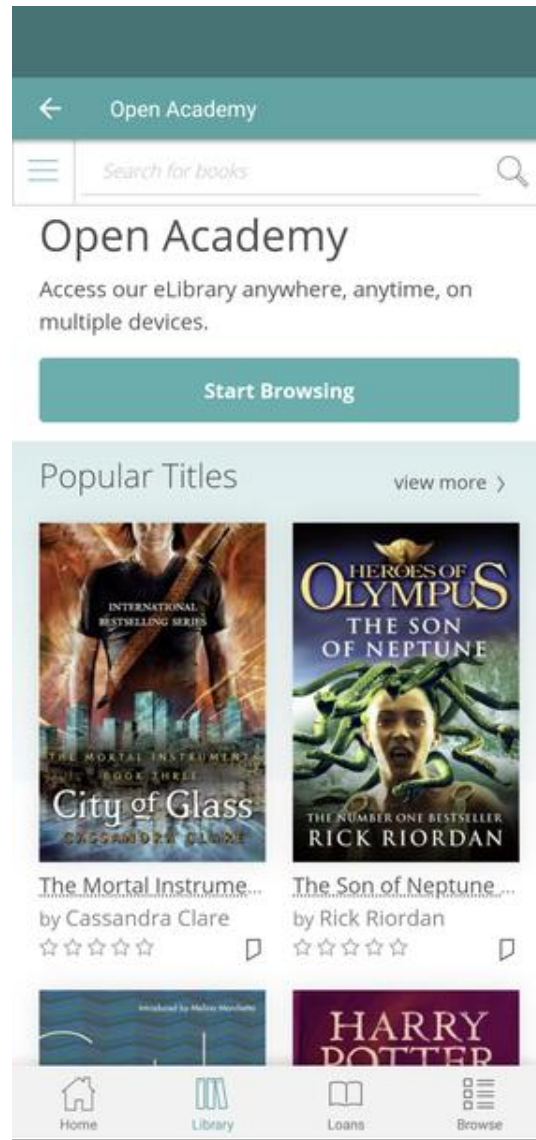
The knowledge is evolutionary not revolutionary. Approximately half the knowledge is new and half helps you revise. Many of the activities are changing. We hope you enjoy them.

Y8 – in SKL we will build upon work covered in Year 7 on friendships and keeping safe by looking at the concept of tolerance. We will explore different kinds of relationships and try to understand why some people are intolerant and others are not.

Subject	Page Number	Subject	Page Number
Reading	4	Science	25
Art	5	DT	29
Music	9	Food	30
English	12	Geography	35
Maths	15	Computer Science	37
History	18	RS	38
PE	20	Drama	40
Deutsch	22	Things to think about	41

Idea	Explanation
<p>Make some flash cards or PowerPoint slides. Make top trumps.</p> 	<p>Write down key words, quotation, questions or equations on one side of a card. On the other side, write the definition or answer. Use them to test yourself.</p>
<p>Make a poster.</p> 	<p>Turn your notes into posters with lots of colour and illustrations. Summarising the key information in a different way is an effective way of learning and your brain will remember the colours more easily. Do the title last!</p>
<p>Draw spider diagrams, or for the adventurous mind maps.</p> 	<p>Write the topic/keyword in the centre of your page. Add everything you know in subtopics. Then explore each subtopic in turn adding more ideas. Colour/pictures help you recall.</p>
<p>Write a song or a rap.</p> 	<p>Are there songs that stick your head. Change the lyrics to the information you want to learn. If you record and listen back it will be a more fun way of revising.</p>
<p>Plan a lesson</p> 	<p>If you teach something to someone else the chance of recalling it is really high. This has been found to be the most effective way of learning something for the long term.</p>
<p>Write a story or comic strip.</p> 	<p>Take the keywords or facts that you need to learn and turn them into a story or a cartoon. The sillier the story the more likely you are to remember it.</p>
<p>Write a quiz. Design a game.</p> 	<p>Playing is how we learn as young children and it is a very powerful way of learning throughout life. If we enjoy the game it helps us remember.</p>

READING AT HOME



<https://openacademy.eplatform.co/>

Access eBooks anytime, anywhere with our school eBook platform.

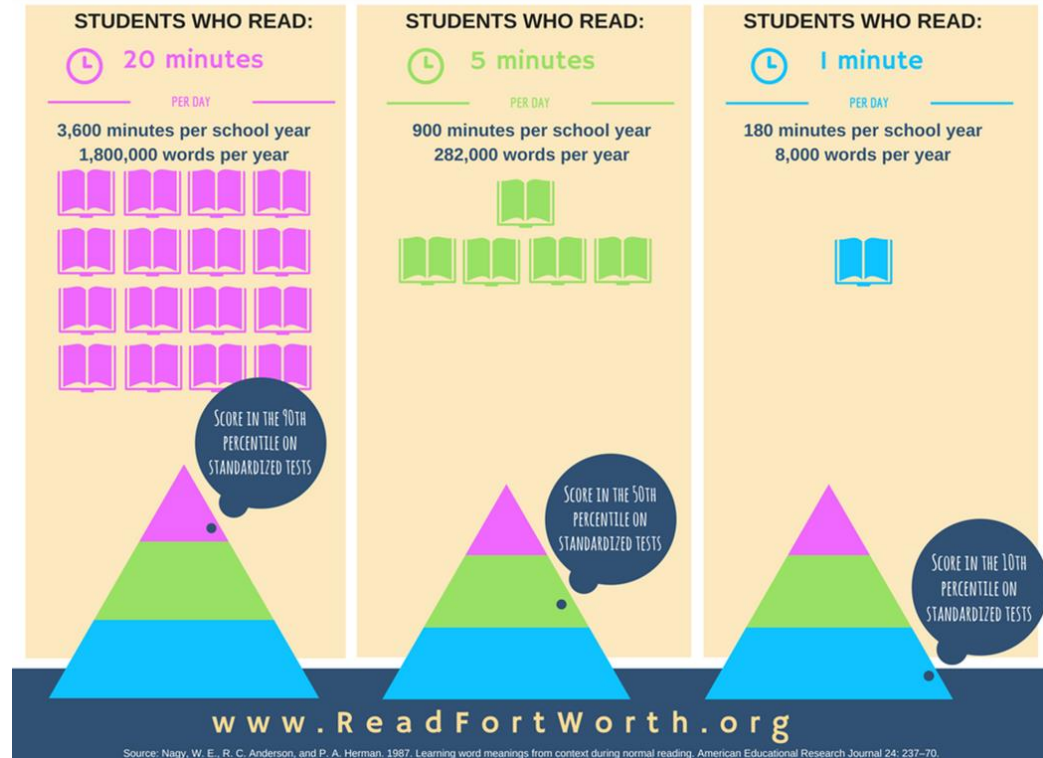
Scan this QR code to be taken to the website and start borrowing today:



SCAN ME

Please contact Miss Ling if you are unsure of your log in details.

Why read 20 minutes at home?



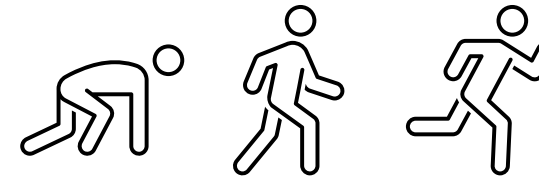
Reading has a number of benefits:

- Success at school
- Mental health & wellbeing
 - Better sleep
- Develop empathy
- Escapism (books can take you anywhere) ...and more!



ReadFit

A workout for your brain!



Read More • Build Reading Stamina • Make Reading a Daily Habit

To be a good reader, much like a marathon runner, you need to put in time and practice to be successful. Runners train over time, gradually increasing the difficulty by increasing the amount of time they run, the distance they run and the speed at which they run.

You can apply a similar idea to reading. To train to be a great reader, you can start by reading easier books, for a short period of time, and by breaking your book into small chunks (i.e. a few pages at a time). As you continue your reading training, you can gradually build up to reading more difficult texts, reading for longer and reading bigger sections of your book in one go.

ReadFit is a programme designed to help you on your reading journey. With beginner and hero challenges, each week there will be daily “reading workouts” to help you read more and reach 20 minutes of daily reading. Complete the “workouts” to unlock digital badges and rewards.

WEEK 1 ReadFit LOG

Title of the book I am reading:

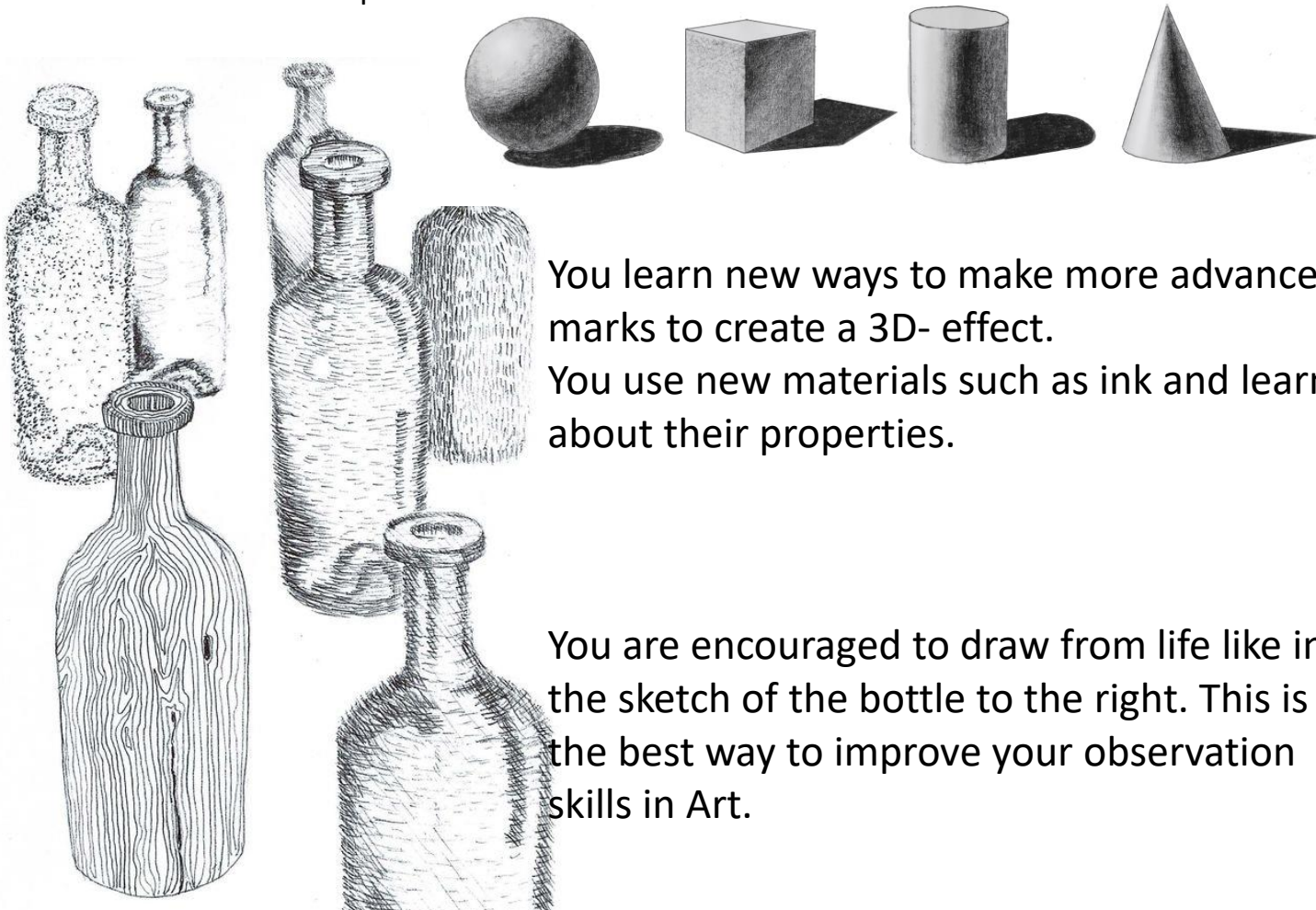
Day 1 Page to	Day 2 Page to	Day 3 Page to	
Day 4 Page to	Day 5 Page to	Main characters	Tricky words
I thought the book was (what are you enjoying or disliking about the book, share your thoughts here):		I found the book: Easy Okay Hard Very Difficult I would recommend this book to others: Yes No	

View the weekly challenges in Teams,
or scan the QR code to take part



Year 8 Art Knowledge Organiser - Autumn Term:

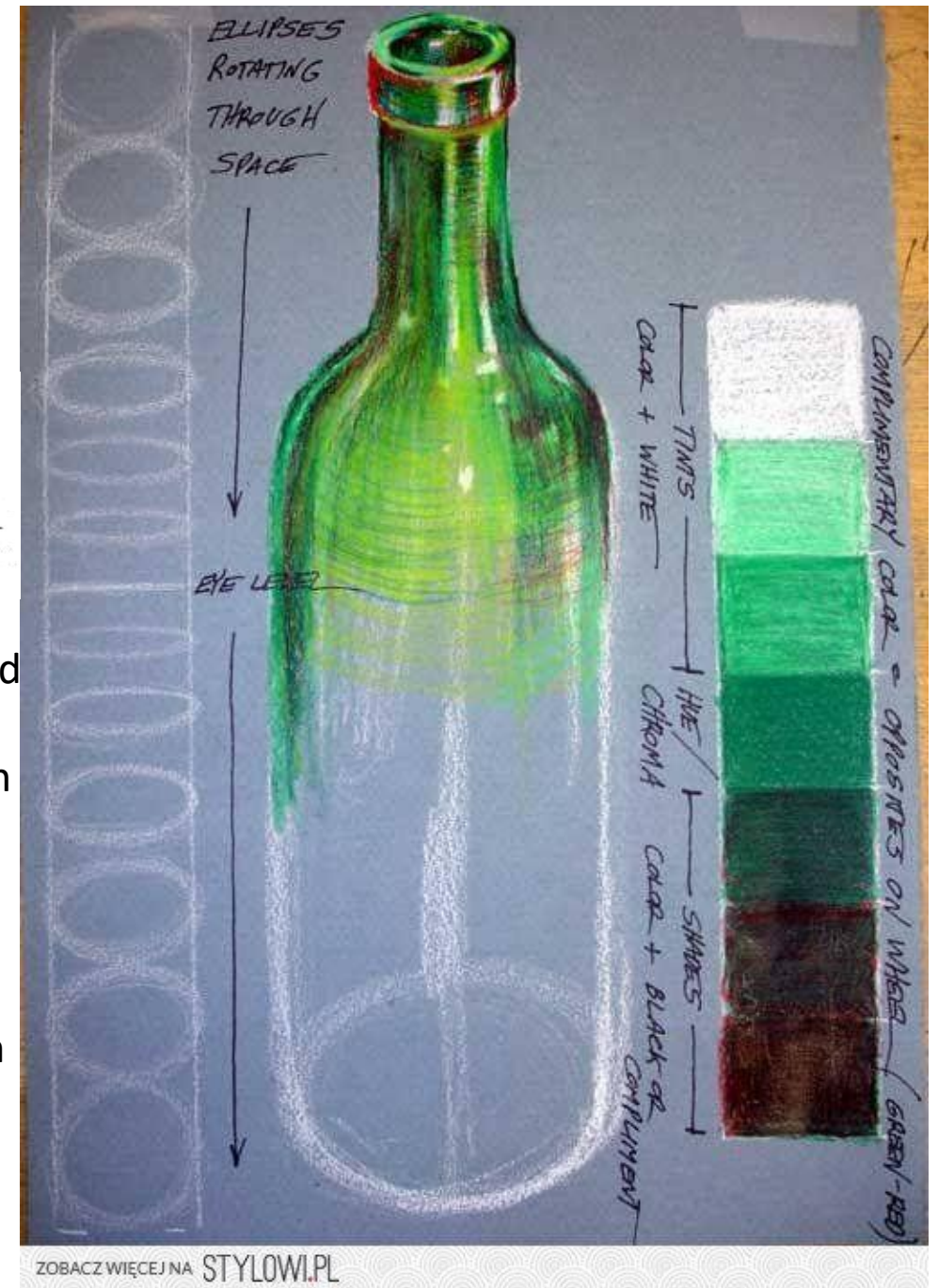
- At the start of Year 8 we do a series of lessons reminding students of the basic formal elements of Art such as **TONE, FORM, LINE**....etc... See next page for full breakdown of the art elements.
- You continue your learning on observational drawing and using tone to show 3D form. See example below.....



You learn new ways to make more advanced marks to create a 3D- effect.

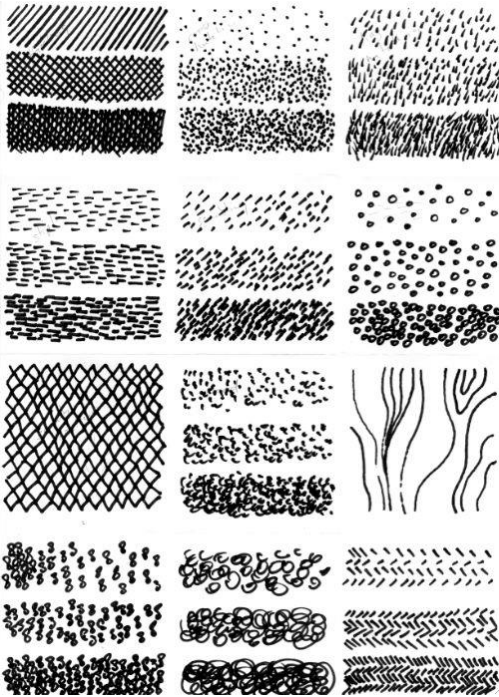
You use new materials such as ink and learn about their properties.

You are encouraged to draw from life like in the sketch of the bottle to the right. This is the best way to improve your observation skills in Art.



VAN GOGH:

We study the artist Vincent Van Gogh after half term in Year 8 and his use of mark making and pen and ink to inspire our own landscapes.



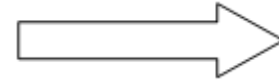
Choose a view from somewhere around your home - this could be:

- A view through a window
- A view through a door
- A view of your garden

Make a detailed drawing of the scene using pencil or pen to show all the different textures and surfaces.

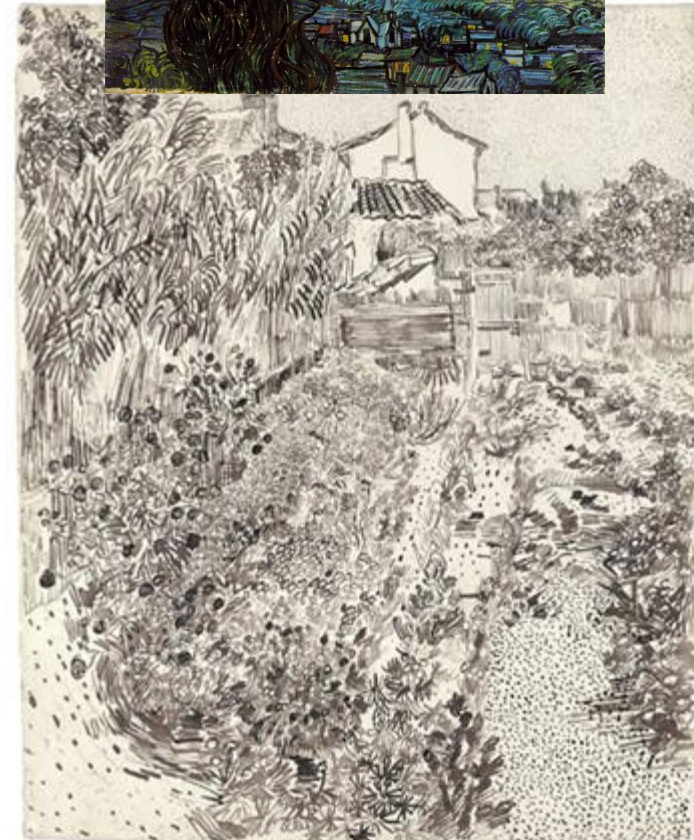
Try to work in a style similar to the one Van Gogh has used in this drawing of a garden.

He has used his pen to create many different marks.



- **PHOTOGRAPHS:** If you have a camera - take a series of photographs of the scene you have drawn to show the different details, print your photographs.

- **WRITTEN DESCRIPTION:** produce a written description of the scene you have drawn – shapes, colours, textures, this should be about 100 words



“Starry Night” Van Gogh



In the box below make a study of Van Gogh's 'Starry night'. Make a study of just one part of the image but try and add as much detail as you can. It is suggested that you should draw out the basic shapes of the landscape with pencil then add the detail with ink.

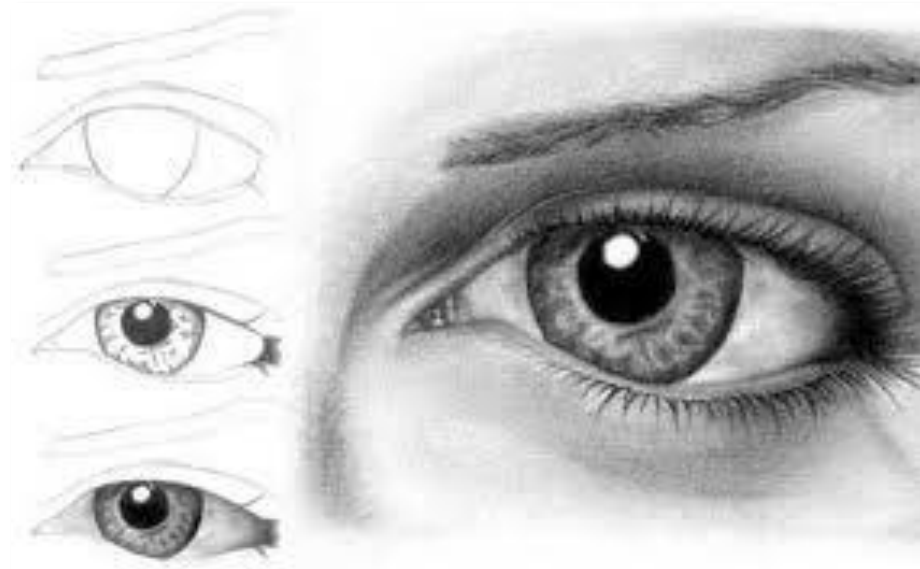
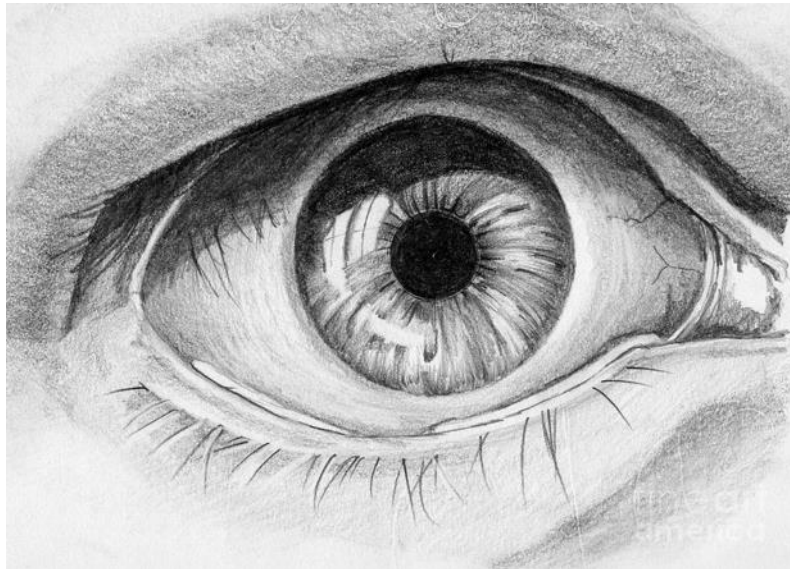
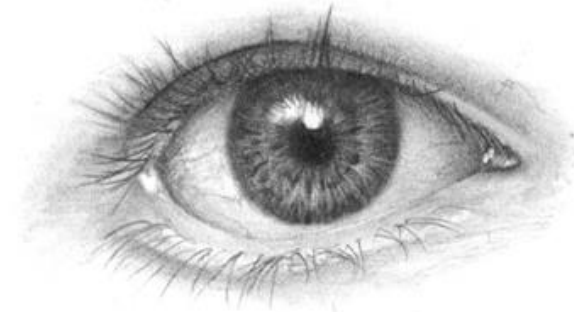
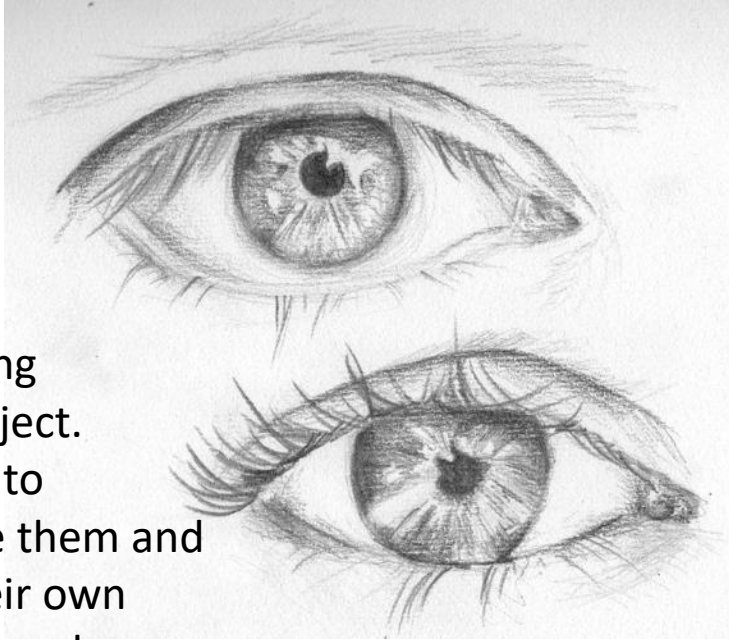
You should aim to spend at least 30mins on this drawing.

How would you describe 'Starry Night' to someone who can't see it?

How is this picture different from real life?

Drawing Eyes

Year 8 are looking
At eyes as a subject.
They learn how to
Draw and shade them and
Then design their own
piece of work based on
their own eyes.



Year 8 Spring Term Knowledge Organiser



Rock 'n' Roll Music 1950's -

- ✓ Played in a 4/4 time signature
 - ✓ Played at a fast tempo
- ✓ Uses the 12-bar blues structure for its chord progression
- ✓ Uses instruments such as the electric guitar, drums and bass
- ✓ Famous artists include Chuck Berry, Buddy Holly and Elvis Presley

Motown Music 1960's

- ✓ A strong, steady four-beat drum tempo.
- ✓ Frequent use of strings and horns.
- ✓ Pop vocal stylings with gospel-influenced chorals
- ✓ Complex chord changes and sophisticated melodies.
- ✓ Famous artists and bands include Stevie Wonder, the Jackson 5 and The Supremes



The Beatles

The Beatles were an English rock band from Liverpool, who became the most successful act in popular music history. They contributed to music, film, literature, art, and fashion, made continuous impact on popular culture and the lifestyle of several generations.

The band was formed in 1957 by John Lennon and a few school friends. Paul McCartney joined the group shortly afterwards along with a younger guitarist called George Harrison. The group performed under the name 'The Quarrymen' and went through a number of different names before settling on 'The Beatles'.



The band recruited drummer Pete Best, and bassist Stuart Sutcliffe completed the line-up as the group performed for a two-year spell in Hamburg, Germany. Sadly, Sutcliffe died of a brain haemorrhage in 1962, shortly before the band signed to EMI's record label 'Parlophone'. Pete Best was replaced at that same time by Ringo Starr. The most famous line-up of the

group comprised of John on vocals and guitar, Paul on vocals and bass guitar, George playing the lead guitar and Ringo on drums, under the guidance of manager, Brian Epstein.

'Love Me Do', the group's first single, reached number 17 in the charts, while the follow-up, 'Please Please Me', went to number 2. The band's debut album which was also entitled 'Please Please Me' was recorded in one day and went straight to number 1 in the album chart. The group's first number 1 single was their third release 'From Me To You' in 1963. The band's fourth single 'She Loves You' sold over a million copies and became the biggest-selling record in the UK for 15 years. As their popularity spread, the riotous enthusiasm by screaming fans was dubbed 'Beatlemania'. Before one concert in Plymouth, police had to use water hoses to control the frantic crowds.

The band conquered the US record market in 1964, thanks in a big way to their performance of single #5 'I Want To Hold Your Hand' on the popular 'Ed Sullivan Show' which broadcast to a record 73 million people. The song went on to become their biggest-selling worldwide hit, shifting a staggering 12 million copies. In the same year, The Beatles released their first film 'A Hard Day's Night' alongside a single and album of the same name. Another film followed a year later, which also shared its name with an album and single, 'Help!'.



Over the next two years, The Beatles toured non-stop and every album and single they released went to number 1 including the songs 'I Feel Fine', 'Day Tripper' and 'Eleanor Rigby' as well as the albums 'Beatles for Sale' and 'Rubber Soul'. Tired of the pressures of performing and eager to explore new styles of music, in 1966 the group played their final live gig at the 'Candlestick Park' in San Francisco as they gave up touring in favour of spending more time developing their sound in the studio.

The group's sound changed dramatically as they recorded 3 classic albums over the next 3 years. 1966's 'Revolver' marked the start of their new sound as the group experimented with reverse tape looping and several aspects of World Music. Their most famous album 'Sgt Pepper's Lonely Hearts Club Band' which is one of the biggest selling albums of all time and is considered to be the band's masterpiece was released in 1967. This album incorporated a vast array of musical styles and influences, including the group's major interest in Indian music. Dozens of different and diverse instruments were included into their songs such as the Sitar, Tabla and Darbouka. It was in this same year that the timeless classic, 'Strawberry Fields Forever' was recorded. This was arguably The Beatles' finest hour.

The third of these outstanding albums was the self-titled, double-album widely known as *'The White Album'* which followed in 1968. Throughout this time, the group composed more and more impressive and challenging songs and were ably assisted by their genius record producer George Martin who was responsible for the writing of the group's string and orchestral parts. In the same year, The Beatles founded their own record label *'Apple Records'* which was a creative outlet for the band and a selection of other artists.



The Beatles' third and final film *'Let it Be'* was recorded in 1969, alongside the album of the same name, however this album was not released until the following year, after the group's 'final' studio album *'Abbey Road'* was recorded. This album was named after the *'Abbey Road Recording Studio'* where the band recorded all of their albums.

Following unprecedented success, The Beatles split up in 1970. All four members went on to have successful solos careers, especially Paul McCartney and John Lennon, who also became a high-profile anti-war protestor. Tragically, Lennon was shot dead by a crazed 'fan' in 1980.

In total, The Beatles sold an estimated 1 billion records which is more than any other group or solo artist in history. Furthermore, they achieved 17 number one singles and 11 number one studio albums in just 8 active years between 1962 and 1970 which is also more than any other group. The Beatles are widely considered to be the most influential group in popular music history.

Suggested listening:-

- *'She Loves You'*
- *'Can't Buy Me Love'*
- *'I Feel Fine'*
- *'Strawberry Fields Forever'*
- *'Come Together'*

Can you guess The Beatles songs or band members from these pictograms?

1.



Answer

2.



Answer

3.



Answer

4.



Answer

Year 8 - Spring 2 - Hamlet

Plot Summary

Act 1 - Up on the battlements, Horatio sees a ghost that looks like 'Old Hamlet' the previous king who is dead. King Claudius addresses the court and talks about the death of his brother, Old Hamlet. He then toasts his marriage to his brother's wife, Gertrude. Claudius gives Laertes permission to return to his studies in France. Gertrude and Claudius speak to Hamlet and urge him to stop grieving over his father. Hamlet is appalled by his mother's marriage to his uncle. His friend Horatio interrupts him to report that he's seen the ghost of his father. Laertes and Polonius encouraged Ophelia to stay away from Hamlet. Hamlet meets Horatio at night to see the ghost for himself. The ghost tells Hamlet how he was murdered by Claudius. He instructs Hamlet to avenge his murder.

Act 2 - Polonius learns that Hamlet has been behaving oddly towards Ophelia and has been physically rough with her. Polonius believes Hamlet is sick with love for his daughter and intends to report this to the king. Polonius tells Claudius and Gertrude that Hamlet has been driven to madness because of his love for Ophelia. Polonius suggests the king and queen spy on Hamlet as he talks to him. Hamlet speaks in riddles, suggesting that he is mad, though his speech also contains hidden meanings which Polonius picks up on. Some travelling actors arrive and Hamlet asks them to perform 'The Murder of Gonzago' for the king. Before they leave he gets their permission for him to write a 12 line speech that he wants to be included in the play.

Act 3 - Claudius' spies, tell him they don't know why Hamlet is behaving strangely. Claudius then arranges a meeting between Hamlet and Ophelia so that he and Polonius can hide and watch them. When Ophelia enters, Hamlet confuses her with mixed messages. Ophelia doesn't understand the way he treats her. Having seen all of this, Claudius decides that Hamlet is not in love with Ophelia. Claudius has grown tired of Hamlet; he wants to send him away. Whilst praying, Claudius confesses to the murder of his brother. Hamlet hears him but decides not to kill his uncle while he is talking to God. Hamlet visits his mother and threatens her. Polonius is hidden behind a screen spying on them. Gertrude screams, so Polonius makes a noise which makes Hamlet stab through the screen with a knife. Hamlet pulls back the screen to see the dead body of Polonius. The ghost of his father appears and tells him not to be so harsh on Gertrude. Hamlet demands that his mother changes her ways he tells her he knows about the plan to send him to England and tells her he has to go. Gertrude tells Claudius that Hamlet is mad and has killed Polonius.

Act 4 - Claudius worries that he cannot punish Hamlet too much because the people of Denmark love him. When Claudius questions Hamlet over Polonius, he answers in riddles again. Claudius tells Hamlet he must travel to England. Claudius has arranged for Hamlet to be killed there. Ophelia visits the queen. Claudius and Gertrude agree that Ophelia is sick. Messengers then report that Laertes has returned and he believes Hamlet is responsible for his father's death and sister's madness. Claudius hears that Hamlet is back in Denmark and he plots with Laertes to set up a duel between Hamlet and Laertes. Claudius doesn't want to take any risks so he says he will also prepare a 'chalice' of poison for Hamlet. Gertrude then enters with the news that Ophelia has drowned herself.

Act 5 - Two gravediggers are discussing whether Ophelia should have a Christian burial when she is believed to have killed herself. Hamlet passes this grave with Horatio. The scene is interrupted by the royal family and Laertes entering the graveyard to bury Ophelia. Laertes and Hamlet argue and they fight. Hamlet leaves and Horatio goes after him. Hamlet is invited to make amends with Laertes by fighting him in a duel. The men then choose their weapons and Laertes takes the sword with a poisoned tip. Claudius drops a poisoned pearl into the cup and offers it to Hamlet. Hamlet doesn't drink it but during the fight Gertrude drinks the wine from the poisoned cup and dies. The fight continues and both men end up swapping swords. They are both wounded with the deadly poison. Laertes falls first and warns Hamlet that the king is to blame. In a fit of rage, Hamlet forces Claudius to drink the poisoned wine. Before Laertes dies, he and Hamlet forgive each other.

Year 8 - Spring 2 - Hamlet

Context

Religion - Over the reign of Queen Elizabeth I and King James I, the country transitioned between two religions: Catholicism and Puritanism. Puritans were very strict Christians who were against the theatre because it distracted people from praying.

Patriarchy - During this time women were treated as property and could not own anything unless they were widowed. They were seen as weaker and less clever than men.

The King - The mourning period for a king was 6 months to a year. Speaking against a king was considered "treason" and was punishable by death. The King may hire a traveling acting group to entertain at a party. Kings are often sent away to school (from about age 13). Children were expected to avenge a parent's murder. Suicide was considered a mortal sin. There was a strong belief in Astrology and the supernatural. Duels were common. Honour was of the utmost importance.

Key Terminology

Soliloquy - An act of speaking one's thoughts aloud when by oneself or regardless of any hearers, especially by a character in a play

Dialogue - A conversation that takes place between two characters

Monologue - A long, speech by one character in a play during a conversation

Dramatic Monologue - a dramatic monologue is a poem in which an imaginary character speaks to a silent listener. This poem is in the form of a speech or narrative in which the speaker unconsciously reveals certain aspects of his or her character

Sub Plot - a secondary strand (side story) of the plot which supports the main plot line in either time, place or theme.

Key Themes

Revenge - this is a double revenge story. Hamlet & Laertes are both trying to avenge their father's deaths.

Corruption - Shakespeare is exploring the idea that if a society's leaders are corrupt then the whole society will not thrive.

Religion - ideas are explored around sacrifice to achieve peace and ideas of heaven and hell.

Politics - Hamlet is a political drama which explores what people will do to get and hold on to power.

Appearance & Reality - the gap that exists between how things seem to be and how they really are

Characters

Hamlet - Prince of Denmark who wants to discover who murdered his father.

Claudius - King of Denmark
Murdered his brother and marries his wife

Old Hamlet - Former King of Denmark. A ghost that commands Hamlet to avenge his death.

Gertrude - Queen of Denmark
Marries her husband's murderer.

Polonius - Claudius's counsellor, Father of Laertes and Ophelia

Ophelia - Hamlet's love who goes mad after her Father dies.

Laertes - Fights with Hamlet to avenge the deaths of his family.

Horatio - Hamlet's loyal friend

Year 8 - Spring 2 - Hamlet - Task Sheet

Context Questions:

1. Create a class quiz on the context of the play. This could include questions about the monarch at the time, why certain themes are important and/or Shakespeare himself.
2. Why was the theme of religion so important and relevant at the time Hamlet was written?
3. Give an example of where the power of the patriarch is demonstrated in Hamlet.

Key Themes

1. Explain a situation where there may be a gap between appearance and reality e.g. a student appears to be reading, but they are actually daydreaming!
2. Two of the themes are revenge and corruption - which do you think causes the most trouble in the play. Give reasons for your choice.

Key Terminology

1. Explain the difference between a monologue and a dramatic monologue.
2. What is a soliloquy and why are they effective in plays?
3. Define the term sub plot.

Character Questions:

1. Draw a simple family tree for Hamlet's family?
2. Who is Hamlet's friend?
3. List three reasons why Hamlet found it difficult to carry out the ghost's wishes?
4. Using your answer to question 3 to help you, write down a word that best describes Hamlet?
5. Gertrude cannot see the ghost. Why do you think this might be?
6. Why does Laertes hate Hamlet so much?
7. What are the names of the two characters Claudius gets to spy on Hamlet?

Plot Summary Questions:

1. Where in the world is the play set?
2. Where does the ghost appear during the play?
3. What does Horatio expect to happen when Hamlet 'comes of age'?
4. How did Claudius murder King Hamlet?
5. Whose skull does Hamlet discover in the graveyard?
6. Who returns Hamlet to Denmark following his exile?
7. Why does Hamlet decide not to kill Claudius when he hears him confess to his father's murder?
8. Who is the last character to die in the play?

YEAR 8 - DEVELOPING NUMBER...

Fractions & Percentages

@whisto_maths

What do I need to be able to do?

By the end of this unit you should be able to:

- Convert between FDP less than and more than 100.
- Increase or decrease using multipliers.
- Express an amount as a percentage.
- Find percentage change.

Keywords

Percent: parts per 100 — written using the % symbol

Decimal: a number in our base 10 number system. Numbers to the right of the decimal place are called decimals.

Fraction: a fraction represents how many parts of a whole value you have.

Equivalent: of equal value.

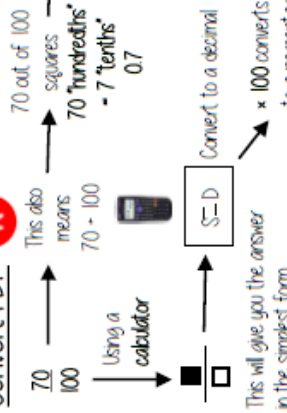
Reduce: to make smaller in value.

Growth: to increase/ to grow.

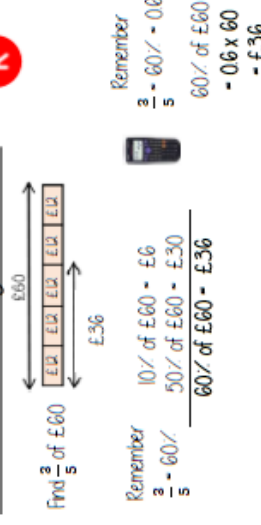
Integer: whole number, can be positive, negative or zero.

Invest: use money with the goal of it increasing in value over time (usually in a bank).

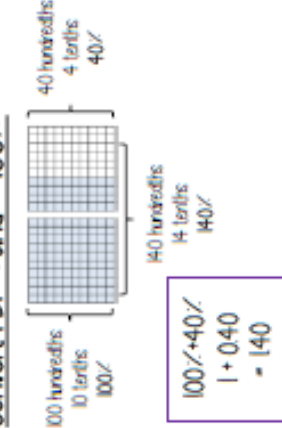
Convert FDP



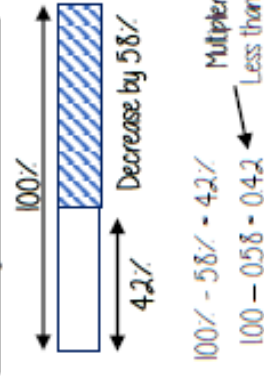
Fraction/ Percentage of amount



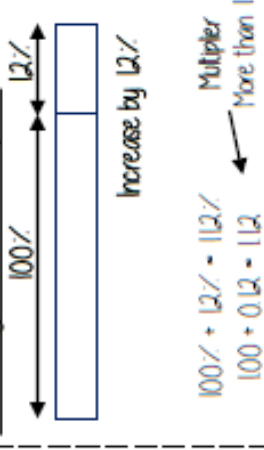
Convert FDP < and > 100%



Percentage decrease: Multipliers



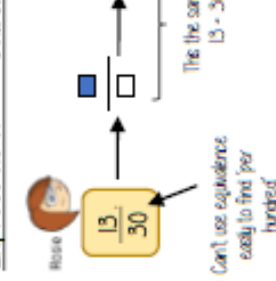
Percentage increase: Multipliers



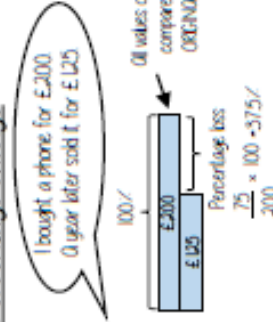
Express as a % - Non-calculator



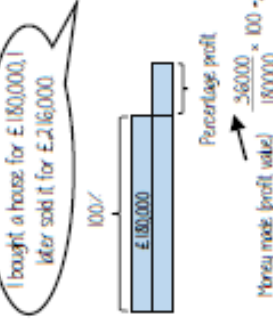
Express as a % - Calculator



Percentage change



Choose appropriate method



The language and wording of the question is the key

Have you represented the question in a bar model?
Can you use a calculator?

YEAR 8 - DEVELOPING NUMBER...

Standard Form

@whisto_maths

What do I need to be able to do?

By the end of this unit you should be able to:

- Write numbers in standard form and as ordinary numbers
- Order numbers in standard form
- Add/ Subtract with standard form
- Multiply/ Divide with standard form
- Use a calculator with standard form

Keywords

Standard (index) Form: A system of writing very big or very small numbers

Commutative: an operation is commutative if changing the order does not change the result

Base: The number that gets multiplied by a power

Power: The exponent – or the number that tells you how many times to use the number in multiplication

Exponent: The power – or the number that tells you how many times to use the number in multiplication

Indices: The power or the exponent

Negative: A value below zero

Positive powers of 10

Billion – 1 000 000 000

$$10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 = 10^9$$

Addition rule for indices $10^a \times 10^b = 10^{a+b}$

Subtraction rule for indices $10^a \div 10^b = 10^{a-b}$

Numbers between 0 and 1

0.054

$$= 5.4 \times 10^{-2}$$

1	•	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
10^0	•	10^{-1}	10^{-2}	10^{-3}
0	•	0	5	4

A negative power does not mean a negative answer – it means a number closer to 0

Standard form with numbers > 1

Any number between 1 and less than 10 $\rightarrow A \times 10^n$
 Any integer

Example

$$\begin{aligned} 3.2 \times 10^4 \\ = 3.2 \times 10 \times 10 \times 10 \times 10 \\ = 32000 \end{aligned}$$

Non-example

$$\begin{aligned} (0.8 \times 10^4) \\ 5.3 \times 10^{(0)} \end{aligned}$$

Order numbers in standard form

$$6.4 \times 10^{-2} \quad 2.4 \times 10^{-2} \quad 3.3 \times 10^0$$

$$0.064$$

$$240$$

$$1$$

$$0.13$$

Look at the power first, will the number be $>$ or $<$ than 1

Use a place value grid to compare the numbers for ordering

Negative powers of 10

0.001	1	•	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
$1 \times \frac{1}{1000}$	10^1	•	10^0	10^{-1}	10^{-2}
1×10^{-3}	0	•	0	0	1

Any value to the power 0 always = 1

Negative powers do not indicate negative solutions

Mental calculations

$$6.4 \times 10^{-2} \times 1000 \quad \text{Not in Standard Form}$$

$$= 6.4 \times 10^{-2} \times 10^3$$

Use addition for indices rule

$$= 6.4 \times 10^9$$

$$(8 \times 10^5) \times (3)$$

$$= 24 \times 10^5 \quad \text{Not in Standard Form}$$

$$= 2.4 \times 10^1 \times 10^5 \quad \text{Use addition for indices rule}$$

$$= 2.4 \times 10^6$$

$$(2 \times 10^{-3}) \div 4$$

$$= (2 \div 4) \times 10^{-3}$$

$$= 0.5 \times 10^{-3}$$

Remember the layout for standard form

Any number between 1 and less than 10 $\rightarrow A \times 10^n$
 Any integer

Multiplication and division

$$\frac{1.5 \times 10^2}{0.3 \times 10^3}$$

Division questions can look like this

$$(1.5 \times 10^2) \div (0.3 \times 10^3)$$

$$15 \div 0.3 \times 10^2 \div 10^3$$

Revisit addition and subtraction laws for indices – they are needed for the calculations

$$= 5 \times 10^2$$

$$a^m \times a^n = a^{m+n}$$

$$a^m \div a^n = a^{m-n}$$

Addition and Subtraction

Tip: Convert into ordinary numbers first, and back to standard form at the end

$$6 \times 10^5 + 8 \times 10^5$$

Method 1

$$\begin{aligned} &= 600000 + 800000 \\ &= 1400000 \\ &= 1.4 \times 10^6 \end{aligned}$$

Method 2

$$\begin{aligned} &= (6 + 8) \times 10^5 \\ &= 14 \times 10^5 \\ &= 1.4 \times 10^1 \times 10^5 \\ &= 1.4 \times 10^6 \end{aligned}$$

This is not the final answer

More robust method
Less room for misconceptions
Easier to do calculations with negative indices
Can use for different powers

Only works if the powers are the same

Using a calculator

Input 14 and press $\times 10^5$ Then press 5 (for the power)

Press $\boxed{=}$

Input 3.9 and press $\times 10^3$ Then press 3 (for the power)

Press $\boxed{=}$

$$14 \times 10^5 \times 3.9 \times 10^3$$

Use a calculator to work out this question to a suitable degree of accuracy

This gives you the solution

Click calculator for video tutorial

To put into standard form and a suitable degree of accuracy

Press **SHIFT** **SETUP** and then press 7 for sci mode.

Choose a degree of accuracy so in most cases press 2

$$\text{Answer: } 5.5 \times 10^8$$

YEAR 8 — DEVELOPING NUMBER...

Number Sense

What do I need to be able to do?

to do?

By the end of this unit you should be able to:

- Round numbers to powers of 10 and 1st
- Round numbers to any dp
- Estimate solutions
- Calculate using order of operations
- Calculate with money, units of measurement and time

Keywords

Significant: Place value of importance

Round: Making a number simpler but keeping its value close to what it was

Decimal: Place holders after the decimal point

Overestimate: Rounding up — gives a solution higher than the actual value

Underestimate: Rounding down — gives a solution lower than the actual value

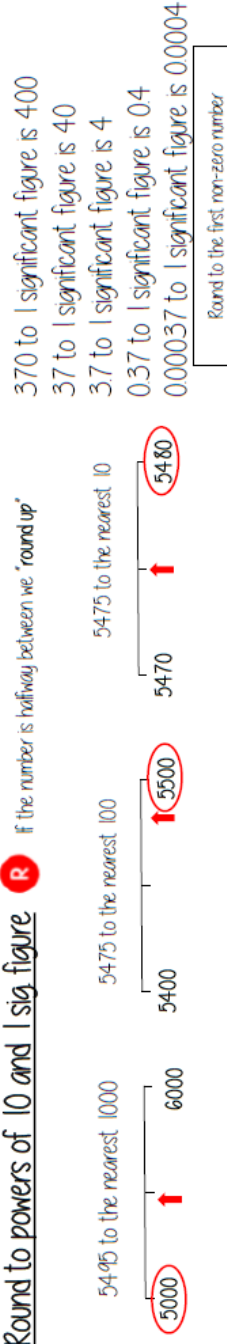
Metric: A system of measurement

Balance: The amount of money in a bank account

Deposit: Putting money into a bank account

Round to powers of 10 and 1 sig figure

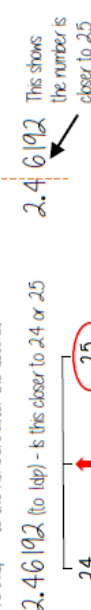
R If the number is halfway between we "round up"



Round to decimal places

To 1dp — to one number after the decimal
To 2dp — to two numbers after the decimal

2.46192 (to 1dp) — is this closer to 2.4 or 2.5



2.46192 (to 2dp) — is this closer to 2.46 or 2.47



Estimate the calculation

Round to 1 significant figure to estimate

$4.2 + 6.7 \approx 4 + 7 \approx 11$ This is an **overestimate** because the 6.7 was rounded up more

$21.4 \times 3.1 \approx 20 \times 3 \approx 60$ The **equal sign** changes to show it is an estimation

This is an **underestimate** because both values were rounded down

It is good to check all calculations with an estimate in all aspects of maths — it helps you identify calculation errors

Order of operations

R

Brackets Operations in brackets are calculated first

Other operations eg powers, roots,

Multiplication/ Division

They are carried out in the order from left to right in the question

Addition/ Subtraction

They are carried out in the order from left to right in the question

Calculations with money

Debit — You have £0 or more in an account

Credit — You have less than £0 in an account



Using a calculator — ensure you are working in the correct units

£130 + 50p = 130 + 50 (in pence)
= 130 + 0.50 (in pounds)

£1 = 100p



Units are important: Useful Conversions

Metric measures of length

Kilo = 1000 x meter Centi = $\frac{1}{100}$ x meter

Milli = $\frac{1}{1000}$ x meter

Units of weight/ capacity

Weight = g, kg, t

Capacity (volume of liquid) = ml, L

Time and the calendar



1 Year — the amount of time it takes Earth to go around the sun 365 (and a quarter) days

Leap Year — 366 days (every 4 years)

12 Months = one year = 52 weeks

31 days — Jan, March, May, July, Aug, Oct, Dec

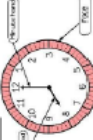
30 days — April, June, Sept, Nov

28 days — Feb (29 leap year)

1 week — 7 days

Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday

12-hour clock



24-hour clock

Use am (morning) and pm (afternoon)

Only use hour times up to 12

Digital Clock (24-hour times)

24-hour clock

0-11 (morning hours)

12-23 (afternoon hours)

Use a number line for time calculations!

1 day = 24 hours

1 hour = 60 minutes

1 minute = 60 seconds



Year 8 History: The Industrial Revolution

Key words	
Industrial revolution	A time of great change in Britain between 1750 to 1900
Population	The number of people living in a particular place
Invention	Something new which is created, can be an object or an idea
Economy	The system of how money is used within a particular country
Agriculture	The process of producing food, and fibres by farming of certain plants or raising animals
Urbanisation	The increase in the proportion of people living in towns and cities
Sanitation	The system that disposes of human waste
Mass production	The production of many products in one go e.g. textiles
Industry	The process of making products by using machines and factories

From 1750 Britain went through a process of change:

- Agriculture – New tools, fertilizers and harvesting techniques were introduced, resulting in increased productivity and agricultural prosperity.
- Industry – Factories sprung up all over the country creating more efficient ways to produce goods such as wool, cotton and coal. The increase in factories brought thousands of new jobs.
 - Transport and communications – Thomas Telford built roads and canals in the 1790s and George Stephenson and Isambard Kingdom Brunel oversaw the 'Railway Mania' of the 1820s. There had previously been no very fast way of transporting goods and people around the country.
 - Technology – There were many scientific discoveries and technological inventions that changed society and industry. Changes to sanitation and medical treatment such as the work of John Snow and Edward Jenner improved people's quality of life.

KEY INVENTIONS: The Steam Engine, Water Frame, Spinning Jenny and Locomotive

Factory working conditions

Long working hours: normal shifts were usually 12–14 hours a day, with extra time required during busy periods

Low wages: a typical wage for male workers was about 15 shillings (75p) a week, but women and children were paid much less, with children three shillings (15p). For this reason, employers preferred to employ women and children

Cruel discipline: Frequent "strapping" (hitting with a leather strap). Other punishments included nailing children's ears to the table, and dowsing them in water butts to keep them awake

Accidents: forcing children to crawl into dangerous, unguarded machinery led to many accidents and deaths

Health: The air was full of dust, which led to chest and lung diseases and loud noise made by machines damaged hearing.

Living conditions

Overcrowding: There were not enough houses in the cities

Disease: Typhus, typhoid, tuberculosis and cholera. low standard housing and poor-quality water supplies all helped spread disease.

Waste disposal: gutters were filled with litter. Human waste was discharged directly into sewers, into rivers

Poor quality housing: Built very close together so there was little light or fresh air inside. Houses did not have running water and people found it difficult to keep clean

Lack of fresh water: People could get water from streams, wells and stand pipes, but this water was often polluted

Factory owners such as Robert Owen argued improving conditions for workers would bring better profits. This influenced parliament to pass Factory Acts but many workers still lacked protection and a political voice

Key words	
Slavery	A relationship where one person has absolute power over another. They control their life, freedom and wealth
Trade Triangle	The name of the system for trading slaves across the world
Middle Passage	The names used to describe the journey from Africa to America for slaves, it took up to 2 months
Plantation	A large farm that slaves worked on to produce cotton, tobacco and sugar
Abolition	Is the act of putting an end to something by law e.g. slavery
The Slavery Abolition Act 1833	The Act passed in Britain that abolished slavery.

Who benefitted from the slave trade?

Plantation Owners – Grew ‘cash’ crops of sugar, tobacco, coffee, spices and cotton for sale back in Europe

African Tribal Leaders – Captured slaves through war between rivals over land. They would then trade their captures for weaponry and gunpowder to increase their power in their native land

British Business Men – Areas such as Liverpool and Bristol where the ships were built and goods imported got extremely rich

African Slaves – Some slaves worked in the plantation owner’s house as butlers, cooks or housemaids. They were able to learn new skills, such as cooking and cleaning. They were often dressed in finer clothing and given a better diet than those that worked in the fields

During the 19th century Britain saw its empire grow significantly. It was regarded as a great source of wealth and status for Britain, however this came at a terrible human cost in the Transatlantic Slave Trade. Slaves were traded across the world. Ships were loaded in England with goods such as guns, cloth and salt. This was taken to Africa and traded for slaves. The ships then went on a 2-month journey known as the Middle Passage to the Caribbean. Here the slaves were sold to work in the cotton plantations and farms. The ship was then loaded with sugar and cotton, to be taken back to England to be sold for huge profits.



Slaves suffered through terrible conditions and many died during the journey. They were packed into the ship tightly and laid down for most of the journey. They were severely punished should they disobey orders. Slaves were chained up for the entire journey; diseases spread quickly. Many threw themselves overboard.

Why was Slavery abolished?	Abraham Lincoln was against slavery. It was abolished on the 31st January 1865 but this did lead to a civil war in the USA	Economics: Sugar plantations closed as cheap sugar could be bought from Brazil and Cuba
Slave rebellions such as Nat Turner’s Revolt	Key Individuals: Granville Sharp and Thomas Clarkson fought freedom cases in court. Olaudah Equiano sold his story. Press and publicity influenced attitudes against slavery	Religion – Christian groups, such as the Quakers, thought that slavery was a sin. William Wilberforce used his position as MP to campaign for change

Fitness testing for performance

Component of fitness	Fitness test	Advantages	Disadvantages
Aerobic Endurance	Multistage fitness test Cones are placed 20m apart. You run between the sounds of the beep which gradually gets faster.	<ul style="list-style-type: none"> You can test many people at once Tests maximum effort 	<ul style="list-style-type: none"> Scores can be subjective The conditions can affect the result
Agility	Illinois Agility test Using a set course, compete in quickest time possible	<ul style="list-style-type: none"> Cheap and easy 	<ul style="list-style-type: none"> Human error or weather can affect the results
Body Composition	Body Mass index (BMI) $BMI = \text{Weight (kg)} \div \text{Height (m)} \times \text{Height (m)}$	<ul style="list-style-type: none"> Easy to complete 	<ul style="list-style-type: none"> Misleading results
	Skinfold test Use callipers to measure skin on bicep, tricep , shoulder blade and hip.	<ul style="list-style-type: none"> Accurate percentage of body fat 	<ul style="list-style-type: none"> Specialist equipment needed
Flexibility	Sit and reach test Both feet against the box reaching forward and measure in centimetres.	<ul style="list-style-type: none"> Quick and easy Well known 	<ul style="list-style-type: none"> Arms and leg length can affect result
Muscular Endurance	Sit up and press up tests Count how many sit ups or press ups completed in one minute	<ul style="list-style-type: none"> Quick and easy Little equipment needed 	<ul style="list-style-type: none"> Incorrect technique will affect results
Muscular Strength	Grip Dynamometer 3 attempts to squeeze dynamometer and measure	<ul style="list-style-type: none"> Simple and easy Lots of data 	<ul style="list-style-type: none"> Equipment affects result
Power	Vertical Jump test Standing side on, jump and mark the wall with chalk, jumping as high as possible.	<ul style="list-style-type: none"> Quick and easy 	<ul style="list-style-type: none"> Technique can affect results

Can you complete these 30 challenges?

Attempt each day and record how you feel after each day. Do you feel healthier? Do you feel more energized?

30-DAY PLANK CHALLENGE

Day 1: 20 sec	Day 16: 2 min
Day 2: 20 sec	Day 17: 2 min
Day 3: 30 sec	Day 18: 2.5 min
Day 4: 30 sec	Day 19: Rest
Day 5: 40 sec	Day 20: 2.5 min
Day 6: Rest	Day 21: 2.5 min
Day 7: 45 sec	Day 22: 3 min
Day 8: 45 sec	Day 23: 3 min
Day 9: 1 min	Day 24: 3.5 min
Day 10: 1 min	Day 25: 3.5 min
Day 11: 1 min	Day 26: Rest
Day 12: 1.5 min	Day 27: 4 min
Day 13: Rest	Day 28: 4 min
Day 14: 1.5 min	Day 29: 4.5 min
Day 15: 1.5 min	Day 30: 5 min



30-DAY CRUNCH CHALLENGE

Day 1: 25	Day 16: Rest
Day 2: 30	Day 17: 100
Day 3: 35	Day 18: 105
Day 4: Rest	Day 19: 110
Day 5: 40	Day 20: Rest
Day 6: 45	Day 21: 115
Day 7: 50	Day 22: 120
Day 8: Rest	Day 23: 125
Day 9: 60	Day 24: Rest
Day 10: 65	Day 25: 130
Day 11: 70	Day 26: 135
Day 12: Rest	Day 27: 140
Day 13: 80	Day 28: Rest
Day 14: 90	Day 29: 145
Day 15: 95	Day 30: 150



Owen Farrell



Dina Asher-Smith



LeBron James

Look at the sports performers pictured on this page. Each one has a different set of fitness requirements for their sports.

Create a circuit training session for your chosen performer using the fitness testing table on the previous page. What will you need to consider? What equipment will you need? Why have you chosen these tests?

Module 3: Bleib gesund! (Keeping healthy!)

Here is the vocabulary you will need for Stimmt 2, Module 3.

Remember to listen to the German by clicking on the Soundfile links on the electronic version of this KO.

Das Frühstück • Breakfast

der/das Joghurt	<i>yoghurt</i>
der Käse	<i>cheese</i>
der Schinken	<i>ham</i>
der Speck	<i>bacon</i>
der Toast	<i>toast</i>
der Kaffee	<i>coffee</i>
der Tee	<i>tea</i>
der Orangensaft	<i>orange juice</i>
die Butter	<i>butter</i>
die Marmelade	<i>jam</i>
die Orangenmarmelade	<i>marmalade</i>
die Milch	<i>milk</i>
die heiße Schokolade	<i>hot chocolate</i>
das Brötchen	<i>roll</i>
das Obst	<i>fruit</i>
das Ei	<i>egg</i>
die Eier (pl)	<i>eggs</i>
die Frühstücksflocken (pl)	<i>cereal</i>

In this Module you will learn how to:

- talk about typical breakfasts
- discuss typical German food
- understand and use recipes
- talk about healthy lifestyles
- understand and respond to longer texts
- describe and compare dinner parties

www.textivate.com

Username: openacademy

Password: surname800

Go to 'my resources' to find your work.



[Soundfile](#)

Was isst du zum Frühstück?

• What do you eat for breakfast?

Ich esse einen Joghurt.	<i>I eat a yoghurt.</i>
ein Brötchen mit Butter und Marmelade	<i>a roll with butter and jam</i>
Ich esse kein Frühstück.	<i>I don't eat any breakfast.</i>
Max isst Toast mit Butter.	<i>Max eats toast with butter.</i>
Ellie und Sarah essen Eier.	<i>Ellie and Sarah eat eggs.</i>
Ich trinke einen Kaffee.	<i>I drink a coffee.</i>
eine Tasse Tee	<i>a cup of tea</i>
Das ist (un)gesund.	<i>That's (un)healthy.</i>
Das ist lecker/furchtbar.	<i>That's delicious/awful.</i>



[Soundfile](#)



[Soundfile](#)

Wie ist das? • What is it like?

süß	<i>sweet</i>
sauer	<i>sour</i>
salzig	<i>salty</i>
scharf	<i>spicy</i>
vegetarisch	<i>vegetarian</i>
lecker	<i>delicious</i>
ekelhaft	<i>disgusting</i>

Im Restaurant • In the restaurant

Was nimmst du?	<i>What are you having?</i>
Ich nehme ...	<i>I'll take/I'm having ...</i>
den Fisch	<i>the fish</i>
die Gemüsesuppe	<i>the vegetable soup</i>
das Hähnchen	<i>the chicken</i>
die Nudeln	<i>the pasta</i>



[Soundfile](#)

Die Speisekarte • Menu

(der) Fisch mit Reis und Erbsen	<i>fish with rice and peas</i>
(der) Flammkuchen mit Sauerkraut	<i>Flammkuchen with pickled cabbage</i>
(die) Bratwurst mit Eiern	<i>fried sausage with eggs</i>
(die) Gemüsesuppe mit Brötchen	<i>vegetable soup with a roll</i>
(das) Hähnchen mit Pommes frites und Karotten	<i>chicken with chips and carrots</i>
(das) Schnitzel mit Kartoffeln	<i>pork fillet in breadcrumbs with potatoes</i>
(das) Steak mit Rösti	<i>steak with rösti potatoes/hash browns</i>
(die) Käsespätzle mit Salat	<i>speciality cheesy pasta with salad</i>



[Soundfile](#)



[Soundfile](#)

Ein Rezept • A recipe

Nimm ...	<i>Take ...</i>
150 Milliliter Milch	<i>150 millilitres of milk</i>
50 Gramm Butter	<i>50 grams of butter</i>
eine Zwiebel	<i>an onion</i>
Schneide ...	<i>Cut ...</i>
Misch ...	<i>Mix ...</i>
Stell ...	<i>Put ...</i>
Erhitze ...	<i>Heat ...</i>
Rühre ...	<i>Stir ...</i>
Serviere ...	<i>Serve ...</i>

Mein Lieblingssandwich

• My favourite sandwich

das Ketchup	<i>ketchup</i>
der Senf	<i>mustard</i>
der Thunfisch	<i>tuna fish</i>
die Erdnussbutter	<i>peanut butter</i>
die Gurke	<i>gherkin</i>
die Mayo	<i>mayonnaise</i>
die Olive	<i>olive</i>
die Sardelle	<i>sardine, anchovy</i>



[Soundfile](#)

Gesund bleiben • Staying healthy

Man muss ...	<i>One/You/People must ...</i>
acht Stunden schlafen	<i>sleep for eight hours</i>
wenig Fett und Zucker essen	<i>eat little fat and sugar</i>
viel Obst und Gemüse essen	<i>eat lots of fruit and vegetables</i>
mehr Wasser trinken	<i>drink more water</i>
früh ins Bett gehen	<i>go to bed early</i>
drei Stunden trainieren	<i>exercise for three hours</i>
zweimal pro Woche joggen	<i>jog twice a week</i>



[Soundfile](#)



Oft benutzte Wörter

• High-frequency words

normalerweise	<i>usually</i>
gestern	<i>yesterday</i>
bis	<i>until</i>
früh	<i>early</i>
spät	<i>late</i>
mehr	<i>more</i>
wenig	<i>little</i>
weniger	<i>less, fewer</i>
oft	<i>often</i>
besser	<i>better</i>
mein	<i>my</i>
dein	<i>your</i>
sein	<i>his</i>
ihr	<i>her</i>
mit	<i>with</i>
ohne	<i>without</i>
in	<i>in, into</i>
auf	<i>on, onto</i>

Strategie 3

Kognaten und falsche Freunde

Cognates and near-cognates are words that are spelled exactly the same or nearly the same as English words and have the same meaning in German. It is helpful to identify these as you can learn them quickly and easily. Look at the word lists on these pages and find all the cognates and near-cognates. You will find more than 20.

Watch out for **falsche Freunde** ('false friends'). These are tricky words that look like cognates but have a different meaning. What does **Marmelade** actually mean?

Read the Strategy Box for ideas about 'false friends'.



[Soundfile](#)



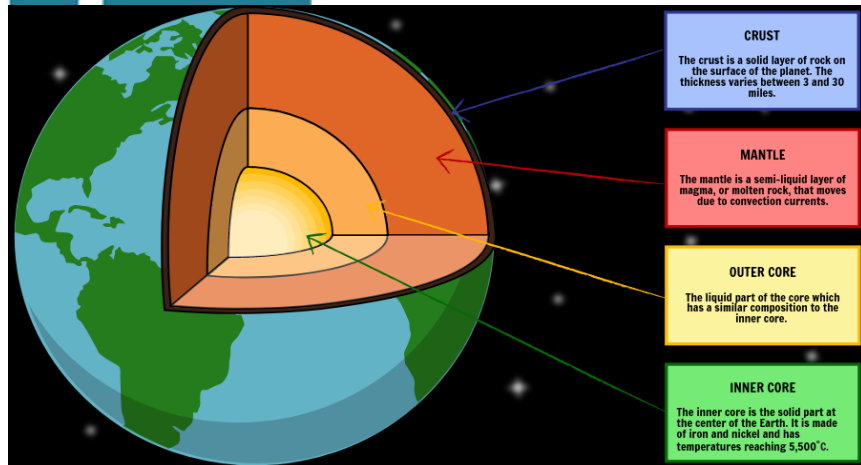
[Soundfile](#)

Die Mahlzeiten • Mealtimes

die Vorspeise	<i>the starter</i>
die Hauptspeise	<i>the main course</i>
die Nachspeise	<i>the dessert</i>

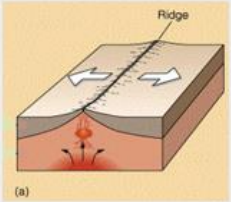
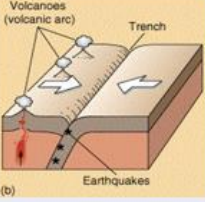
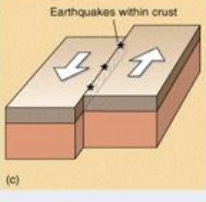
Earth structure

Tectonic plates are large pieces of the Earth's crust that move a few centimetres every year



Earthquakes

- Following an earthquake seismic waves travel through the earth.
- The waves are affected by different layers in the earth's structure.
- Scientists have observed how these waves travel to build up a picture of our earth's structure

Type of Margin	Divergent	Convergent	Lateral sliding
Diagram:			
Motion	Spreading	Subduction	Lateral slide
Effect	Ridge	Trench	None
Structure created	Constructive	Destructive	Conservative
Volcanic activity?	Yes	Yes	No

Physical weathering is caused by physical processes such as changes in temperature, freezing and thawing, and the effects of wind, rain and waves.

Temperature changes

When a rock gets hot it expands a little, and when it gets cold the rock contracts a little. If a rock is heated and cooled many times, cracks form and pieces of rock fall away. This type of physical weathering happens a lot in deserts, because it is very hot during the day but very cold at night.

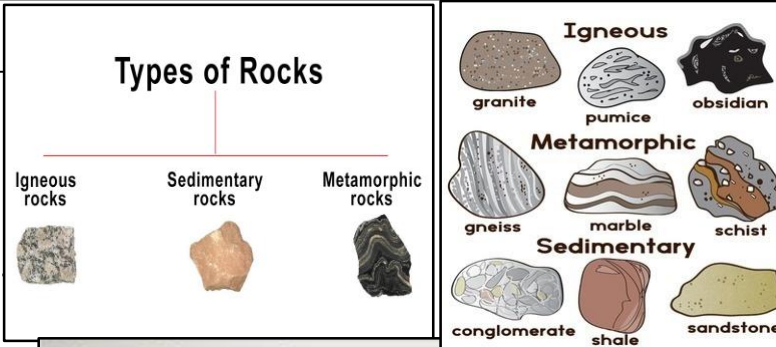
Wind, rain and waves

Wind, rain and waves can all cause weathering. The wind can blow tiny grains of sand against a rock. These wear the rock away and weather it. Rain and waves lashing against a rock can also wear it away over long periods of time.




Freeze-thaw

Water expands slightly when it freezes to form ice. This is why water pipes sometimes burst in the winter. You might have seen a demonstration of this sort of thing - a jar filled to the brim with water eventually shatters after it is put into a freezer. The formation of ice can also break rocks. If water gets into a crack in a rock and then freezes, it expands and pushes the crack further apart. When the ice melts later, water can get further into the crack. When the water freezes, it expands and makes the crack even bigger. This process of freezing and thawing can continue until the crack becomes so big that a piece of rock falls off.

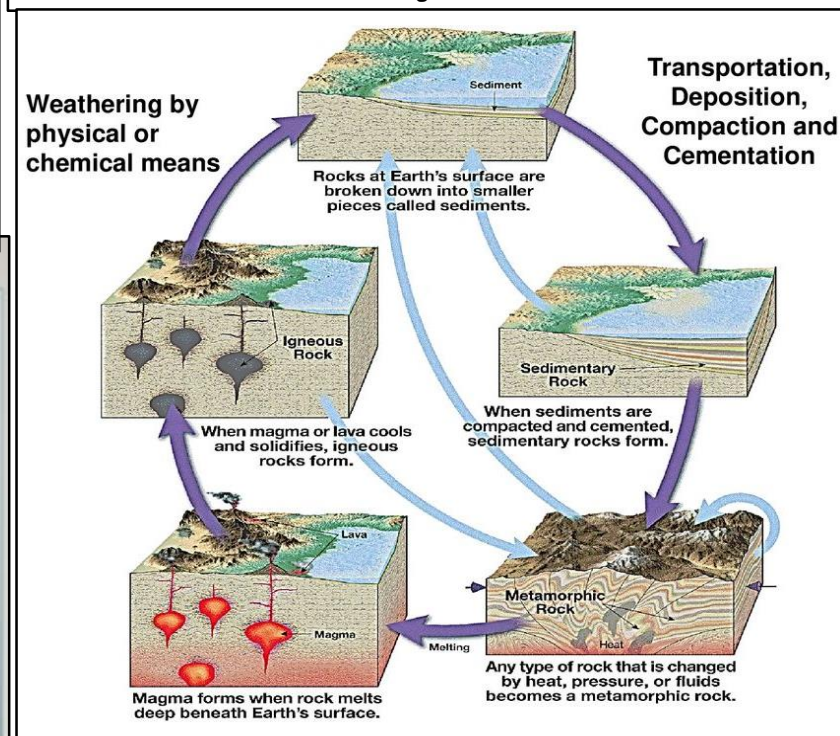
Types of Rocks

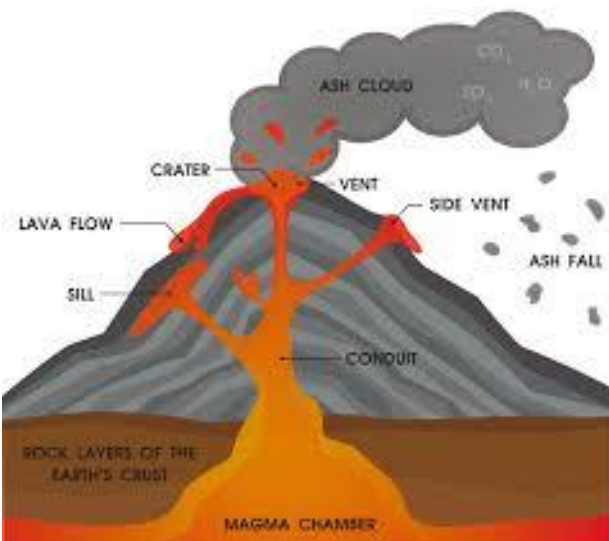


Identifying rocks

Igneous	Metamorphic	Sedimentary
		
Formed from cooling magma or lava.	Formed from igneous or sedimentary rocks which have been either melted, bent, folded or squashed.	Formed from small parts of other rocks settling one on top of the other (compaction).
<ul style="list-style-type: none"> Has tiny crystals Sharp rough edges Can look like black glass There will not be fossils! Usually quite tough 	<ul style="list-style-type: none"> It can look wonky There might be squashed layers. There won't be any crystals or fossils. 	<ul style="list-style-type: none"> There may be fossils present There will be different stones mixed in. Easy to break or chip.

Weathering is the wearing away of rocks
Erosion is the movement of the broken pieces away from the site of weathering





Practical – Investigating Size of Crystals

Practical details

Each pupil or small group will need:

- 3 x Pyrex watch glasses or microscope slides
- 3 x Petri dishes 1 containing crushed ice
- 1 containing water at room temp
- 1 containing hot water
- 1 x Hand lens or microscope
- 10g Salol
- 1 x Spatula

Bunsen, heatproof matt, safety glasses, tongs, stop clock.

Instructions

Wear appropriate protective clothing throughout.

1. Draw up a results table for the three samples leaving a column for the crystal size
2. Set out the three Petri dishes containing the three different temperatures of water.
3. Place one spatula of salol on each watch glass
4. Light the Bunsen and very carefully, holding the glass in the tongs, gently warm the salol until it melts
5. Place the watch glass on the selected Petri dish and watch them carefully.
6. Record the time when each has completely solidified.
7. Observe the crystals on the cooled watch glasses using the hand lens

Igneous rocks form when molten lava/magma cools to form solid rock

Igneous rocks are hard with interlocking crystals

The faster the lava/magma cools the smaller the crystals in the rock

Porous rocks

Rocks with rounded grains are more likely to absorb water than rocks with interlocking grains. This is because the water can get into the gaps between the grains. Rocks that absorb water are described as being porous.

Rocks with rounded grains are usually softer and more crumbly than rocks with interlocking grains. So porous rocks tend to be softer than non-porous rocks.

Earth's Atmosphere

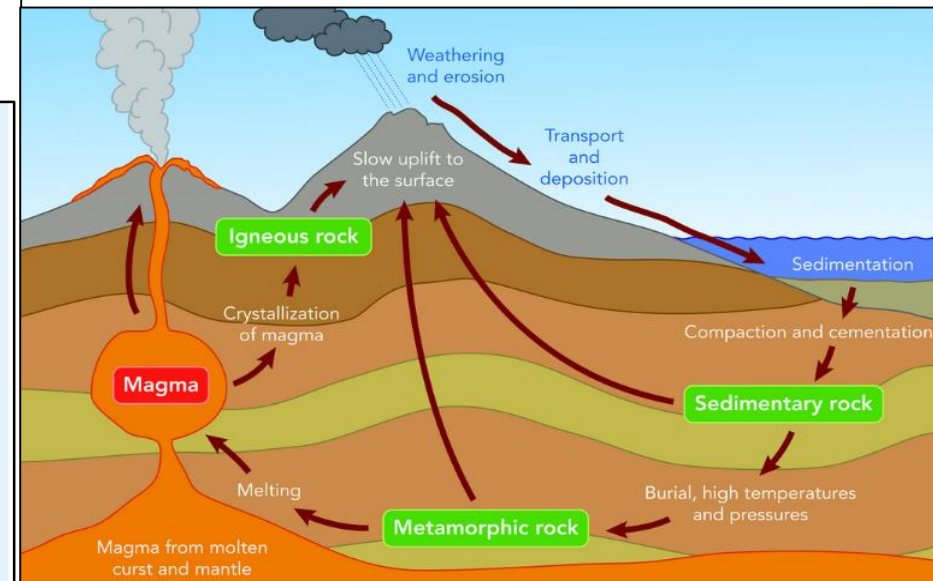
For 200 million years, the proportions of different gases in the atmosphere have been much the same as they are today.

Gas	Percentage in the Atmosphere (%)
Nitrogen	78
Oxygen	21
Carbon Dioxide	0.03
Argon	0.96
Others (water vapour, hydrogen, helium etc.)	0.01

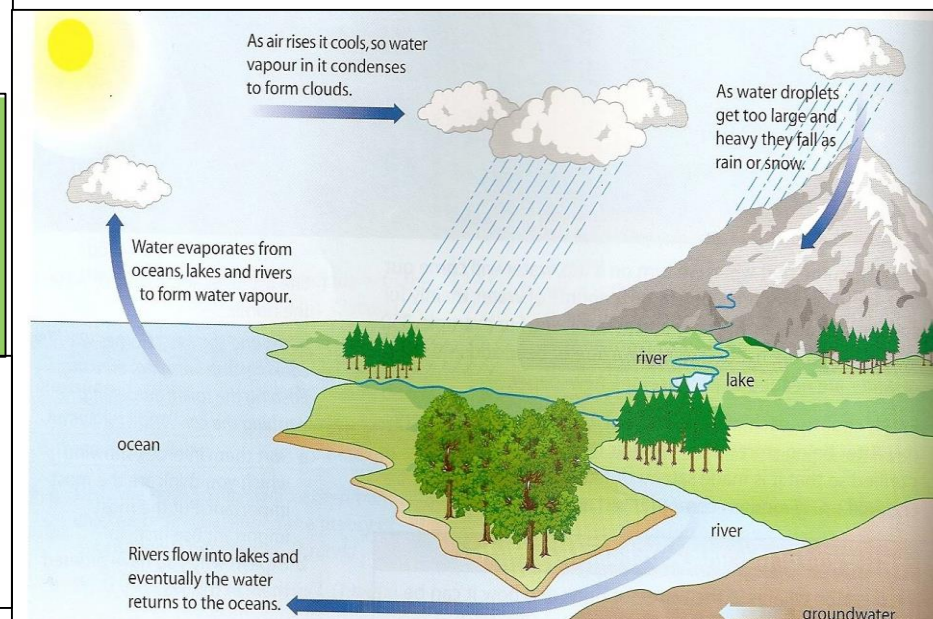
The current composition of the air has been roughly the same for nearly 200 million years but the amounts of different gases have changed over time.

About 3,500 million years ago, the atmosphere on Earth would have been similar to the atmosphere on Mars today. It would have contained large quantities of carbon dioxide, but not much oxygen or nitrogen

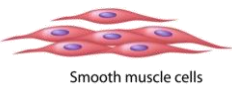


Rock Cycle



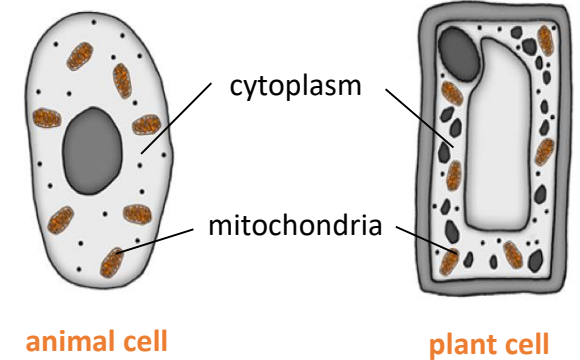
Water Cycle



ENERGY FOR LIFE (RESPIRATION)

An organism will receive all the energy it needs for living processes as a result of the energy transferred from respiration	<i>For movement</i>	 Smooth muscle cells	To enable muscles to contract in animals.
	<i>For keeping warm</i>		To keep a steady body temperature in a cold environment.
	<i>For chemical reactions</i>		To build larger molecules from smaller one.

Cellular respiration is an exothermic reaction which is continuously occurring in all living cells



animal cell

plant cell

Respiration and Pulse Rate

• **Aerobic respiration:**

- Releasing energy from glucose using oxygen.
- Occurs in every cell in the body
- $C_6H_{12}O_6 + 6O_2 \rightarrow 6H_2O + 6CO_2$

• **Anaerobic respiration:**

- Releasing energy from glucose without oxygen
- Produces less energy → less efficient
- Produces lactic acid → causes cramp and muscle fatigue → removed with oxygen (debt)
- Glucose → Lactic acid

Aerobic respiration releases a large amount of energy from each glucose molecule

Anaerobic respiration releases a much smaller amount of energy than aerobic respiration.

During exercise the human body reacts to increased demand for energy

Heart rate increases

To pump oxygenated blood faster to the muscle tissues and cells.

Breathing rate and breath volume increase

This increases the amount of oxygen entering the blood stream.

Anaerobic respiration in plant and yeast cells

The end products are ethanol and carbon dioxide. Anaerobic respiration in yeast cells is called fermentation

glucose → ethanol + carbon dioxide

NORTHERN LIGHTS

MAGNETS AND ELECTROMAGNETS

Bar Magnets

Bar magnets have two poles, a North pole (N) and a South pole (S), **opposite poles attract and like poles repel**.

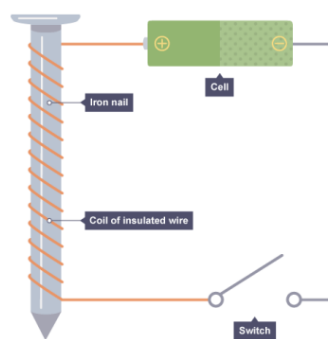
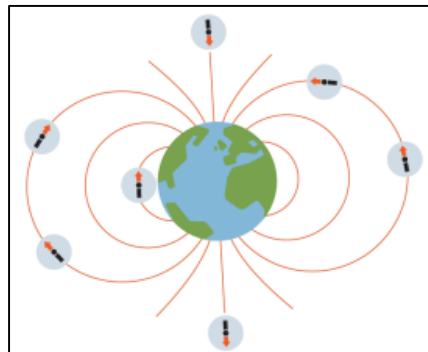
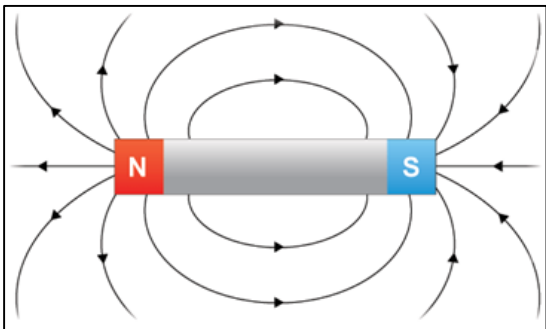
Magnets create magnetic fields. These cannot be seen. They fill the space around a magnet where the magnetic forces work, where they can attract or repel magnetic materials.

Although we cannot see magnetic fields, we can detect them using iron filings. The tiny pieces of iron line up in a magnetic field. We can draw simple magnetic field line diagrams to represent this. In the diagram, note that:

- field lines have arrows on them
- field lines come out of N and go into S
- field lines are more concentrated at the poles.

The magnetic field is strongest at the poles, where the field lines are most concentrated.

The Earth has a magnetic field because the core rotates, it acts like a giant bar magnet.



Key Terms

Electromagnet

Magnetic Field

Definitions

A magnet created by the flow of electricity in a wire

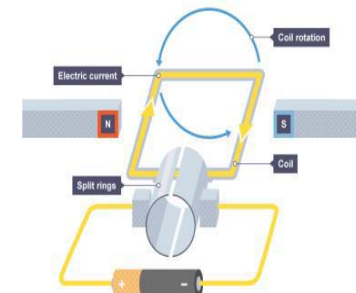
The area around a magnet, where the magnetic field acts

Electromagnets

When an electric current flows through a wire, it creates a magnetic field, this can be used to make an **electromagnet**, by making the wire into a coil.

You can increase the strength of an electromagnet by doing three things:

- 1.Increase the number of coils
- 2.Increase the current
- 3.Add a soft iron core



The motor effect: A simple electric motor can be built using a coil of wire that is free to rotate between two **opposite** magnetic poles. When an electric current flows through the coil, the coil experiences a force and moves. This is called the motor effect.



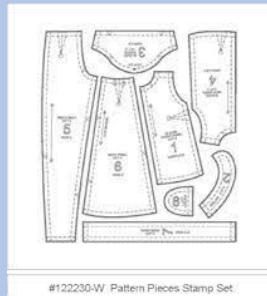
Making a textile product

Design brief

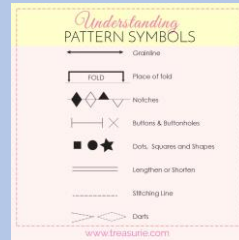
Design a fabric monster that will be added to a CAM toy to keep a child entertained.

This half term you will be making a textile product from the design brief above.
What will you need to consider when designing and making for a child?
How will you know if your product is suitable?

Designers need to think about who will use the product, when and how?



Pattern pieces



Pattern pieces are usually made from paper and they are like stencils. They allow us to cut out exactly the same shape every time and in large quantities. They are pinned onto fabric and fabric scissors are used to cut around the paper pattern. Sometimes tailors chalk is used to draw around the pattern piece first then it is cut out. What is tailors chalk? When and why did you use it? Pattern pieces have symbols on them to tell us to do certain things. Use this link to find out what the symbols mean: <https://www.createandcraft.com/gb/sewing-pattern-symbols>

Careers using this knowledge: Fashion designer, textile designer, tailor, pattern maker, upholsterer, material engineer.

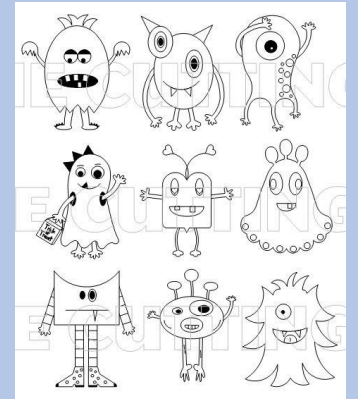


Designing your textiles

Design brief

Design a fabric monster that will be added to a CAM toy to keep a child entertained.

As your product is for a child, what do you need to consider?
When you have written a list of requirements, you will be drawing a range of ideas.
Why do you need a RANGE of ideas, not just one?
Look at the sketches on the right, which ones do you like? Why?

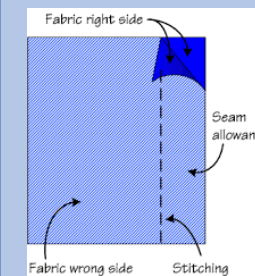


Seam Allowance

A seam is where 2 pieces of fabric are joined together.
Click on this link to learn what a seam is:

https://www.youtube.com/watch?v=HNy_tcF1oP8

When you have decided on the design you want to make, you will need to make a paper pattern to draw around. When you have cut out your fabric you will need to draw on where you will sew. This is called the sewing line and it is represented by a broken line like this - - - - - . It looks like running stitch.



A seam allowance is the space between the edge of the fabric and the sewing line. When you design your pattern piece you have to ADD on an extra 10mm all the way around your pattern piece for the SEAM ALLOWANCE. This is so that you do not sew all the way to the edge of the fabric and your seam will be strong.
<https://www.youtube.com/watch?v=6Mte8zG-ezI> This link will take you to a video on what a seam allowance is. Take a look.

This is the paper we use to make your pattern from. It has guide lines on it so that you cut it straight.. When you have cut out your pattern piece, draw on the sewing line. Use this to cut out the fabric for your fabric monster.



Seasonal Produce and Air Miles

Seasonal produce

Seasonality of food refers to the times of year when the harvest or the flavour of a given type **food** is at its peak. This is usually the time when the item is the cheapest and the freshest on the market. The **food's** peak harvest time usually coincides with when its flavour is at its best.

Advantages of local, seasonal foods

- Often cheaper as it is not imported and there is a larger quantity of the food available
- Fresher as it has taken less time to travel and less storage time.
- High in nutrients - fruit and vegetables lose nutrients over time after being picked. With less travel and storage time, they lose less nutrients.
- Tastes better as it is fresher and higher in nutrients.

Disadvantages of local, seasonal foods

- There is a smaller range of foods available
- Not importing foods means not supporting farmers in developing countries.

Examples of UK grown produce			
Autumn	Winter	Spring	Summer
Apples Mushrooms Beetroot Pears Potatoes Pumpkin Garlic	Cauliflower Sprouts Suedes Sweet potato Broccoli Oranges Cabbage	Strawberry Carrot Lettuce Leeks Asparagus Peas Spring onion	Cucumber Aubergine Tomato Raspberry Courgette Onion Corn on the cob

Food miles

- If we're not eating fresh, seasonal food grown in the UK, the food has travelled from abroad to reach us.
- Food miles are clocked up by the fresh fruit and vegetables arriving by plane from across the globe.
- Then the fruit gets loaded in to lorries and driven across various parts of the country to supermarkets
- Then once on a shelf the products are then bought by people who then drive it back home.

Food miles are the measure of the distance a food travels from field to plate. This travel adds substantially to the Carbon Dioxide emissions that are contributing to climate change. The amount of food being flown into the UK doubled in the 1990s and is predicted to rise further each year. Consumers are also directly responsible for increased food miles. We now travel further for our shopping and use the car more often to do it.

Advantages of importing foods

- A wide range of foods are available in our shops all year round e.g. strawberries at Christmas.
- Less energy is used growing certain crops in poorer countries as there is no need for heating glasshouses etc. (less damage to the environment)

Disadvantages of importing foods

- Its harder to monitor food production standard and conditions for workers in countries far away.
- Taxes on imported foods means farmers in developing countries don't always receive a fair price for their foods.
- Food that has travelled a long distance is less fresh by the time it reaches the shelves
- People do not buy local produce as much so local UK farmers don't make as much money
- Increased road traffic as more food is being transported around the holiday
- There is increased used of fuel for the road transport plus the carbon dioxide emissions related
- The amount of food flown into the UK increases each year which means the UK is not self-sufficient
- Pressure to expand food production has led to the destruction of environments in some poorer countries
- Over 60% of household waste is a result of food packaging
- Fresh spinach loses over 90% of its vitamin C in the first 24 hours of harvest

Examples of imported foods

Pineapple, mango, tomatoes, celery, potatoes, bananas, nuts, sugar, chicken, lamb, beef, fish, oil, cocoa beans, grapes, tea, coffee, rice, soya bean, herbs, spices, olives, capers, avocado, cauliflower, broccoli

Layered vegetable pasta bake

Ingredients

150g pasta
1 can chopped tomatoes
1 tbsp. tomato puree
1 courgette
1 pepper
2 garlic cloves
1 onion
2 handfuls spinach
1 ball mozzarella
Mixed herbs
Salt and pepper
oil

Equipment

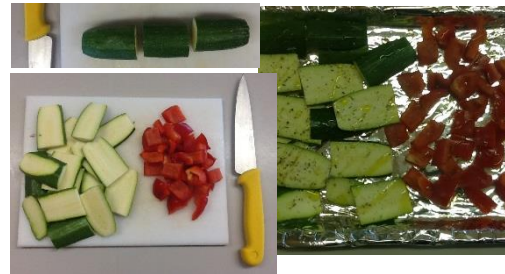
Chopping board
Knife
Saucepan
Frying pan
Wooden spatula
Mixing bowl

Skills

Seasoning
Boiling
Frying



1. Fill up a pan half way with hot water and put on to boil. When boiling add the pasta. Pre-heat your oven to 200C.



2. Slice your courgette and pepper into long strips. Put on a baking tray with oil and seasoning and roast in the oven for 15 minutes.



4. Finely chop your garlic and onion. Fry in a little oil, until softened.



5. Add the tomatoes and a tablespoon of tomato puree. Half fill your empty tomato can with water and add this too. Add salt, pepper and mixed herbs. Simmer for 5 minutes.



6. When the pasta is cooked, drain using a colander, then put $\frac{1}{4}$ in the oven proof dish, followed by the **roasted courgette**.



7. Ladle over $\frac{1}{3}$ of the tomato sauce.



8. Add another $\frac{1}{4}$ layer of pasta, then add the roasted peppers and a layer of sauce.



9. Add another layer of pasta, then add the spinach and a layer of sauce.



10. Add the final layer of pasta and sauce and top with slices of mozzarella.
Bake in the oven for 20 minutes until the cheese has melted and gone golden

Apple Crumble

Ingredients

100g Flour
50g sugar
50g margarine
1 cooking apple or
two small apples

Equipment

Chopping board
Knife
peeler
Bowl
wooden spoon
Scales
tinfoil container

Skills

Chopping
Peeling
Weighing
Rubbing in method



1. Peel and slice the apple and place in a oven proof dish



2. Put the margarine and flour into a mixing bowl.



3. Rub the margarine into the flour until it looks like breadcrumbs.



4. Add the sugar and stir well.



5. Pour the crumble mixture over the apple.



5. Bake for 20-25mins on Gas 5 / 180°C until the crumble is golden brown.

Practical assessment 2:

Tomato and basil quiche

Ingredients

100g plain flour
50g butter or margarine
2tbsp cold water
1 tomato
Handful of basil leaves
2 eggs
125ml semi-skimmed milk
50g cheese

Equipment

Bowl
Weighing scales
Spoon
Jug
Chopping board
knife

Skills

Weighing
measuring
Rubbing in method
Seasoning



1. Pre-heat the oven to 180°C. Rub the butter and flour together until it resembles bread crumbs.



2. Add the water gradually until the pastry comes together into a ball.



3. Roll out the pastry and line your dish.



4. Mix the eggs, milk, mixed herbs and seasoning in a jug.



5. Pour the egg mixture into the pastry shell.



6. Slice the tomatoes and cheese and lay over the top of the tart. Bake in the oven for 30 minutes.



Year 8 Knowledge Organiser: Globalisation



Topics covered

- ✓ What is Globalisation?
- ✓ Benefits of Globalisation
- ✓ Drawbacks of Globalisation
- ✓ What are TNC's?
- ✓ TNC's – good or bad?
- ✓ What is the chain of production?
- ✓ What are 'sweatshops'?
- ✓ Measuring wealth/poverty
- ✓ Ways to reduce poverty
- ✓ Fairtrade

Key Ideas:

1. I can define the meaning of Globalisation
2. I can describe the advantages and disadvantages of Globalisation
3. I can explain how TNC's operate and exploitation through the chain of production.
4. I can measure poverty and suggest ways to reduce poverty

Skills

- ❑ To research amazing facts using ICT
- ❑ To understand different opinions and viewpoints
- ❑ To calculate levels of development using Atlas data
- ❑ To create graphs of different types (line, bar, pie)
- ❑ To write a detailed piece of extended writing

Places and Environments

- ❖ Asia
- ❖ Bangladesh
- ❖ Vietnam
- ❖ Indonesia
- ❖ Cameroon
- ❖ Norwich

Key Terms Used in this Unit

- ❑ Communications
- ❑ Trade
- ❑ Migration
- ❑ Trans-National Corporations
- ❑ Multi-National Corporations
- ❑ Inward Investment
- ❑ Head office
- ❑ Chain of production
- ❑ Consumers
- ❑ Child Labour
- ❑ Exploitation
- ❑ Sweatshops
- ❑ Gross Domestic Product
- ❑ Quality of Life
- ❑ Charity
- ❑ Fair Trade Premium
- ❑ WTO

Kitchen cupboard 'globalisation'

In today's world we are all very much connected to far away places (nothing highlighted this more than the Covid epidemic).

Despite the restrictions on travel, the transport of goods remains a top priority.

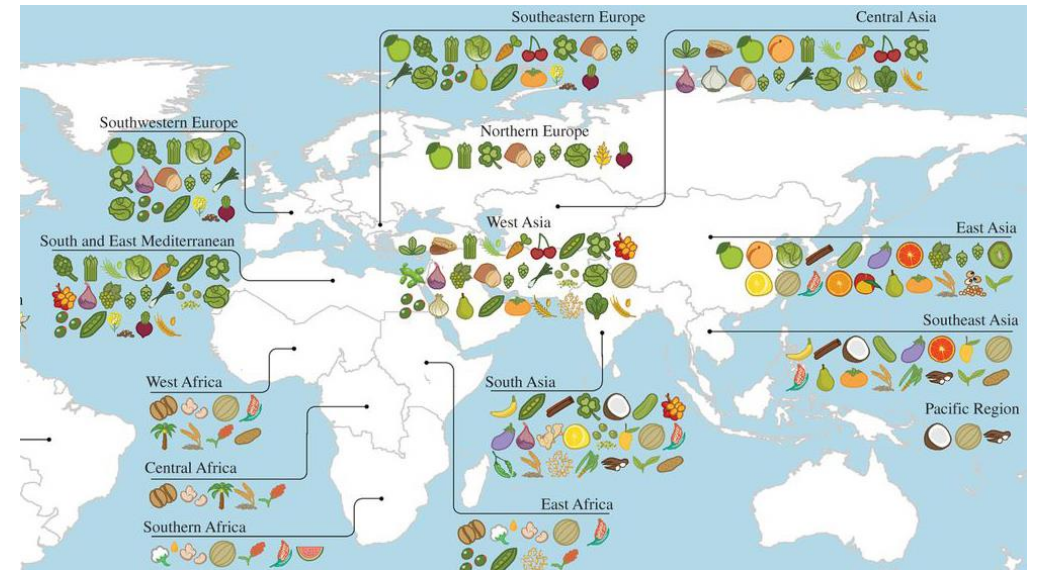
Today many of our supermarkets whether there is a global pandemic or not will contain foods from all over the world

Look in your food cupboards for the following:

Fruits and vegetables, rice, pasta, breads, sauces, herbs and spices. You may even discover oils and wines. Breakfast cereals may contain wheat or corn. Alcohol, barley and wines, grapes.

Where did these items come from? You could guess as to which parts of the world they were grown in or you could check the labels yourself.

Are there any places that we do not rely upon for food and drinks?
Which parts of the world are our supermarkets most reliant on?



Knowledge Organiser: Year 8 Spring Term 1 Part 2 Textual Programming—Microsoft Small Basic

Summary

Sometimes we need computers to remember the information we give it and that it calculates during programs. A variable can be thought of as a box that the computer can use to store a value. The value held in that box can change or 'vary'.

A program can use as many variables as it needs it to. Variables are a key element of programming. They are used for calculations, for storing values for later use, in decisions and in iteration. It is important to use meaningful names for variables.

Programs require data to be input. This data is used (processed) by the program, and data (or information) is output as a result. Once data has been processed, programs often need to output the data they have



Variable

Computer programs use variables to

Variables could be used to store the score in a game, the number of cars in a car park or the cost of items on a till. They work in a similar way to algebra, where a letter in your code can stand for a number.

```
TextWindow.Write("Enter your Name: ")
name = TextWindow.Read()
TextWindow.Write("Hello " + name + ". ")
TextWindow.WriteLine("How are you doing " + name + "?")
```

Selection

Selection is a decision or question.

At some point, a program may need to ask a question because it has reached a step where one or more options are available. Depending on the answer given, the program will follow a certain step and ignore the others.

```
If (Clock.Hour < 12) Then
    TextWindow.WriteLine("Good Morning World")
EndIf
If (Clock.Hour >= 12) Then
    TextWindow.WriteLine("Good Evening World")
EndIf
```

Sequencing

Sequencing is the specific order in which instructions are performed in an algorithm. Algorithms consist of instructions that are carried out

```
GraphicsWindow.Width = 200
GraphicsWindow.Height = 200
GraphicsWindow.PenColor = "Green"
GraphicsWindow.DrawLine(10, 10, 100, 100)
GraphicsWindow.PenColor = "Gold"
GraphicsWindow.DrawLine(10, 100, 100, 10)
```

Iteration

Iteration is the process of repeating steps.

Iteration allows us to simplify our algorithm by stating that we will repeat certain steps until told otherwise. This makes designing algorithms quicker and simpler because they don't have to include lots of unnecessary steps.

```
For i = 1 To 24
    TextWindow.WriteLine(i)
EndFor
```

Key Vocabulary

Algorithm	A sequence of logical instructions for carrying out a task. In computing, algorithms are needed to design computer programs.
Flowchart	A diagram that shows a process, made up of boxes representing steps, decision, inputs and outputs.
Instruction	A single action that can be performed by a computer processor.
Programming	The process of writing computer software.
Programming language	A language used by a programmer to write a piece of software. There are many programming languages.
Pseudocode	A method of writing up a set of instructions for a computer program using plain English. This is a good way of planning a program before coding.
Variable	In a computer program, this is a memory location where values are stored.

Algorithms

Algorithms can be represented as pseudocode or a flowchart, and programming is the translation of these into a computer program.

Pseudocode

```
IF GameWon THEN
    .. Instructions here ..
IF Score > HighScore THEN
    .. Instructions here ..
ENDIF
.. Instructions here ..
ENDIF
```

Flowchart



<http://bit.ly/33WS6NC>



Year 8 RS: Why is Islam the way it is?

Key words

Muhammad	The Last Prophet in Islam.
Abu Bakr	A close companion of Muhammad
Mecca and Medina	Holy cities in Saudi Arabia
Ali	Muhammad's cousin
Quraysh	An influential tribe in Mecca
Quran	The holy book in Islam.
Muslim	A follower of Islam
Mosque	A place of worship in Islam.
Allah	The Arabic word for God



In 622CE Muhammad left Makkah. He and his followers were invited to live in Madinah (about 400 km away).

His departure, (Hijrah), was important because it was at Madinah that Muhammad set up the first Islamic community. Muslims begin their calendar from this date, the first year of hijrah. The Islamic calendar therefore reads AH 1 when the Christian calendar reads 622 CE.

This symbolises leaving behind darkness (disbelief) and moving into a new era full of light (belief).

Arabia- During the time of Muhammad

Countryside-Arabia was a very poor area, mostly desert or scrub.

People-Some of these were Bedouins who were Nomads, constantly moving their sheep, camels and tents from place to place in search

of food and water for themselves and for their animals.

Houses-The Nomad Arabs lived in tents as they had to move around Arabia from place to place. However those who lived in villages and towns had houses made out of mud. As they moved there animals around from market to market they would take everything with them.

Travel and Work-Many Arabs made a living from tending sheep.

Others used camels in groups, called caravans, to carry goods from town to town to sell.

Religion-There was no single religion in Arabia.

Most Arabs worshipped several gods and spirits that they believed lived in rocks and trees. A very small number of them believed in one God (such as the Arab Christians and Arab Jews.

Kings & Rulers-The Arabs were split in to many tribes. There was no single king who ruled them. The Ka'ba was the most important building in all of Arabia. It was used as a temple for worship. The Ka'ba had over 360 altars, statues and other religious objects or idols which all the Arabs worshipped. People would travel hundreds of miles to visit and worship at the Ka'ba.

A young Muhammad

Muhammad was born in 570 in Mecca.

Muhammad was born into a noble tribe called the Quraysh. His father died before he was born, and his mother died when he was 6 years old. As an orphan he was looked after by his grandfather and when he died, by his uncle who was a merchant. When he was older, he became a trader for a rich widow called Khadijah, working as the leader of her caravans. He had done such an impressive job with profits through honesty (rather than cheating people like a lot of traders did in those days) that Khadijah asked him to marry her. Muhammad was 25 when he married Khadijah.

He was well known all over Makkah to be the most honest and hard-working man and was nicknamed 'Al-Amin' meaning 'The trustworthy'. Even the chiefs of the Quraysh praised him for this. Everyone knew that when Muhammad spoke, he always spoke to the truth.

The moment of revelation

According to Islamic teaching, the word of God was revealed through Muhammad in the year 610 CE (AD), when he was 40. God revealed his final message to mankind (about believing in the one God and worshipping the one God, and to lead good and honest lives etc.) through Muhammad. The same message that was delivered to all the other Prophets yet which had been distorted and corrupted over the centuries.

Muhammad was sitting in a cave on Mount Hira, just outside of the city of Makkah, when God spoke to him through the angel Jibril (Gabriel). These revelations happened again and again. In the year 613 CE Muhammad started preaching openly, he told the people of Makkah that there was only one God, and that God had created the world and everything in it. Since there was only one God it was wrong to worship statues and different gods.

At first there was a lot of opposition to Muhammad. His followers were beaten by people who did not want to give up their old way of life. Many people (including traders) did not like his teachings that duty to God, or Allah, was more important than family or tribe. They persecuted his followers for their new faith. The people were not willing to give up their ways of worshipping trees or rocks etc. The Quraysh were especially and extremely angry with Muhammad and his followers. They were losing business in Makkah due to Muhammad making these claims of one God.

Muhammad and his followers were persecuted for their beliefs by the powerful people of Makkah including the Quraysh. They feared they would lose their money, religion and power. They made up things about Muhammad so that people would not listen to him. They called him a liar and a madman. Many people questioned this though as he was once known as 'Al-Amin'. If this was the case, why would he lie about this matter?

Meaning can be shown both physically and vocally. The following are skills used by actors to communicate characters' personality and intention – this is known as **Characterisation**.

- **Body Language** – Showing what you feel by the way you stand.
- **Gesture** – how you communicate with your hands and/or arms.
- **Facial expression** – showing what you feel on your face.
- **Voice tone** – the emotion that you are putting into your voice. E.g. an angry tone of voice.
- **Pitch** – how high or low you are speaking.
- **Pace** – how fast or slow you are speaking.
- **Pause** – Allowing breaks in the speaking
- **Accent** – changing the way you speak to show where you are from.
- **Status** – how important your character is. This can be shown by the way you stand, talk, walk etc...

YEAR 8 DRAMA – WORKING WITH TEXT



Meaning can also be shown through the **design elements**.

Costume is what the character wears and is used to show more about their personality. It can show their age, status, and the time period the play is set in.

Lighting is used to create atmosphere and show the time of day. This is done using colour, angle, and intensity. For example, a dimly lit stage with a cold blue light may create an atmosphere of mystery or suspense, set in the early evening.

Sound is used to add to the atmosphere, heighten emotions and can also be used to show locations for example a wind blowing and a wolf howling can create an eerie atmosphere.

Set includes the scenery, and anything on the stage which is used to show when and where the play takes place. It is used to create levels and make the performing space look visually interesting.

Does our behaviour really matter? In JK Rowling's book: Harry Potter and the Goblet of Fire, Albus Dumbledore says **"We must all face the choice between what is right and what is easy."**

Lent offers Christians a time to reflect on their behaviour and the choices they have made for example if they have been selfish or if they have taken time to think of others. It is a time to prepare, and rethink. A time to seek reconciliation, a renewal of faith and a new direction. Lent enables Christians re-evaluate their conduct and relationships in all aspects of their life and to look at the direction life is leading them.

Jesus is tested in the wilderness: Matthew 4: 1-11 New Revised Standard Version

Jesus in the Desert: Macha Chmakoff



4 Then Jesus was led by the Spirit into the wilderness to be tempted^[a] by the devil. ² After fasting for forty days and forty nights, he was hungry. ³ The tempter came to him and said, 'If you are the Son of God, tell these stones to become bread.' ⁴ Jesus answered, 'It is written: "Man shall not live on bread alone, but on every word that comes from the mouth of God."^[b] ⁵ Then the devil took him to the holy city and set him on the highest point of the temple. ⁶ 'If you are the Son of God,' he said, 'throw yourself down.

For it is written: "'He will command his angels concerning you, and they will lift you up in their hands, so that you will not strike your foot against a stone."^[c]

⁷ Jesus answered him, 'It is also written: "Do not put the Lord your God to the test."^[d] ⁸ Again, the devil took him to a very high mountain and showed him all the kingdoms of the world and their splendour. ⁹ 'All this I will give you,' he said, 'if you will bow down and worship me.'¹⁰ Jesus said to him, 'Away from

me, Satan! For it is written: "Worship the Lord your God, and serve him only."^[e] ¹¹ Then the devil left him, and angels came and attended him.

Lent is a key Christian festival where people reflect on their lives. Jesus was tested in the wilderness. People often set themselves challenges ahead of Holy Week culminating in Easter Sunday. They try to be kinder or give something up.



The film Hail Caesar! follows a day in the life of Eddie Mannix, a Hollywood fixer for Capitol Pictures in the 1950s, who cleans up and solves problems for big names and stars in the industry. At times Eddie's life is filled with the dilemma of making the right choices and decisions:

<https://www.youtube.com/watch?v=UILLd-uBMk4>

Reflect/think about a time: In the clip the Eddie has gone to talk through things with a priest, his lifestyle choices and behaviour.



Why do you think Eddie felt the need to talk things through?

What impact had Eddie's choices had on him?

When Eddie talks about a decision he has to make, the Priest talks about the inner voice and listen to the voice until you hear what is right.

Have you ever had an experience like Eddie's?

EXPERIENCES that can help us ENCOUNTER:

How might choices and random acts of kindness and generosity help us grow?

Watch this video clip from the film the Fight Within and hear how a chance decision to act generously to a stranger, leads to an unexpected exploration about making decisions and choices.

<https://www.youtube.com/watch?v=fOzp6IplsNY>

What do you think prompted the man to buy and share pizza? What other things were shared other than pizza? Who benefitted from the encounter?

In the Christian tradition the word stone or rock has many symbolic meanings. The word stone and rock are used over 400 times in the bible and signify strength, steadiness, protection and durability. 'So I will call you Peter, which means "a rock." On this rock I will build my church, and death itself will not have any power over it.' (Matthew 16:18) Peter had followed Jesus but he had not always behaved well or made good choices in his life. However, Peter was the first to recognise Jesus as the Messiah. Jesus knew that Peter would go on to betray him but did not give up on Peter. He could see how in the future, he could trust Peter and how Peter would ensure that the message of salvation for God's people would spread across the world. Read the account (Matthew 19:13-18)

Draw a stone and cut it out or find a small stone from the garden wash and dry it and use an indelible Sharpie) or glitter glue pen. Think about all the good habits, actions and behaviours you want to develop or improve e.g. kindness, selflessness, faithful generosity etc. Then place your 'stone'/'rock' somewhere in your room where you will see it every morning and evening as a reminder of your intention.



Five Ways to Wellbeing Activity Sheet

Use the challenges on this sheet to help your child feel better and find ways of managing their own mental wellbeing.

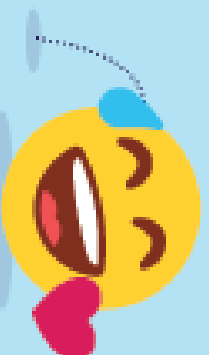
Why not cut them all out and encourage them to choose one or two per day to do. Once they have tried them all they can pick their favourites to do regularly.



Be active



Do a half an hour walk around the local area and write about what you saw when you get back including how it made you feel.



Set up an indoor obstacle course to get your heart rate up



Have a kitchen disco with your household – each pick your favourite songs and do your most energetic dancing together.

Connect



Write a letter to someone that you haven't seen for a long time. Ask how they are and tell them how you have been feeling. Draw pictures or take photos to print and go with it.



Make contact with a friend from school – ask a parent to help you set up a video call so that you can see each other and talk.

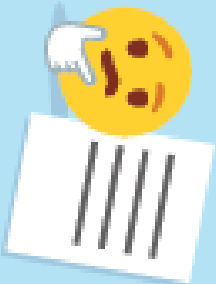


Connect with those you live with by spending time playing a board game together.

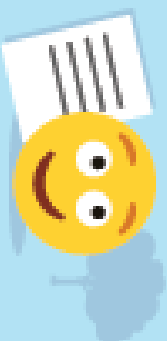
Take notice



Sit outside and listen to the birds sing, and notice what other sounds you can hear.



Write a list of the three things you look forward to doing the most when we are allowed to do them again.



Go for a walk in your local park and look at the trees around you noticing what colour the leaves are. Write about what you see and how it made you feel.

Learn



Choose something you are interested in and spend some time reading about it and learning interesting facts to tell people.



Choose a country you might like to visit one day and learn five words from the language

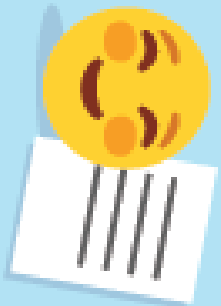


Learn to cook a meal with the person in the household that usually cooks. Help them with the preparation and the clearing up.

Give



Make a homemade card to send to a friend or family member that you can't see at the moment.



Write a list of the things you appreciate most about the people you live with and let them see it.



Help with some of the chores around the house whether it's doing the Hoovering or pairing the socks.



Year 8 RS: Human Rights and Social Justice

Key Words

Aid	Charitable assistance given in times of crisis such as food, money or water	People Trafficking	The illegal movement of people, usually for the purpose of forced labour
Discrimination	Actions which stem from a prejudice against someone	Positive Discrimination	Providing favourable treatment to groups who are normally discriminated against
Equality	The belief that all humans are of equal value and status	Poverty	The state of being without enough money to live a comfortable life
Exploitation	The misuse of power or money to get others to do things for little reward	Prejudice	Beliefs held about somebody based on their status or identity
Freedom of Religion	The freedom to practice your religion without persecution	Social Justice	Fighting to ensure all people in society are treated fairly
Human Rights	Fundamental rights to which all humans should have access	Tithe	A proportion of annual income paid directly to a church



Religious Freedom + Racism



Religious Freedom

Christians believe people of all religions should have the freedom to practice their faith, this is **freedom of religion**.

In some parts of the world this freedom is threatened by oppressive governments. In some parts of the Middle East Christians have faced **persecution** for expressing their faith.

Dignitas Personae (gives doctrinal guidance) states that the 'human person has a right to religious freedom.'

Although, in Islam converting to another religion from Islam is and apostasy and carries the death penalty. Religions such as Hinduism who worship several Gods is seen as blasphemy.

Racism

Christians **oppose** racial prejudice and discrimination.


Racism is illegal in the UK under the 1976 Race Relations Act.

Dr Martin Luther King Jr. became the leader of the Civil Rights Movement which fought for equality for black people in the US, he was a committed Christian and inspired by the Bible and Jesus.

'All human beings are born free and equal...should act in a spirit of brotherhood...everyone is entitled to the rights and freedom.' (Universal Declaration of Human Rights)

Christianity- God made all people free and equal. All were made in the image of God. (Genesis 1:27)

Islam- speaks of 'brotherhood' and all being equal. For example, when a Muslim goes on pilgrimage, they change into an Ihram (a plain white cloth) to show they are all equal before Allah. They also see Jews and Christians as 'people of the book.'

Social Justice 	Human Rights Human Rights are the fundamental rights to which all humans should have access. They were adopted by the UN in 1948 as part of the Universal Declaration of Human Rights . They include the right to life , to security , to privacy , to an education and to a fair trial . Along with these humans also have responsibilities to act within the law and not infringe on others' rights. We also have the Human Rights Act (1998) in the UK	Prejudice and Discrimination Christians have a fundamental belief in equality , that all people are equal in front of God. <i>"You are one in Christ Jesus" Galatians 3:28</i> Prejudice means holding views on someone based on their identity or status e.g. gender or race. Discrimination means acting on those views and treating people differently. Christianity has historically held a prejudice against women , but this is eroding recently with women now holding high positions in the CoE. In the Catholic Church, women can't 'teach or have authority over man.' (1 Timothy 2:11-14) The Qur'an states that women have rights, but men have the final word, so a greater status. (Qur'an 2:229)

KS3 Football

Rules and regulations of the game

Each game consists of **90 minutes** (45 minutes in each half) with **11 players on each team**.

The game is controlled by a referee, assistant referee and other officials to ensure the games are played fairly and within the rules.

The team who scores most goals at the end of the game wins.

Penalty - This happens when a direct foul is committed in the penalty area of either side of the pitch.

Direct Foul - This happens when a player makes illegal contact with an opposing player without winning the ball. A free kick is awarded and the opposition player must stand 10 yards away.

Indirect Foul - An indirect free kick is awarded for less serious fouls such as handball, offside, and the goalkeeper picking up a back pass. An opposing player must still be 10 yards away but the ball must touch another player before a shot can be had.

Offside - A player is in an offside position if, when the ball is played by a team-mate, they are nearer to the opposition's goal line than both the ball and the second last opponent. An indirect free kick is then awarded to the other team.

Players and Substitutes - A team can field only 11 players at any one time. Their squad can consist of 7 substitutes from which only 3 can be fielded. A team cannot substitute a player who has been shown a red card.

<http://www.thefa.com/football-rules-governance/lawsandrules>



Key positions

Goalkeeper - This person guards the goal and is able to use their hands to stop and catch shots and crosses.

Defender - This person helps to protect the goal by marking and tackling opposition as they approach. The main job is to protect the Goalkeeper.

Midfielder - This person works between defending and attacking. They often win the ball and try and create attacks. They play in the middle of the pitch.

Attacker - This person works on scoring goals for their team.



The image above shows the variety of positions, most common on the field of play.

Tactics

Tactics in football can vary from team to team and can be determined by the formations each team plays. **Common formations can include 4-4-2, 4-1-4-1, 4-2-3-1, 3-5-2 and 4-3-3.**

Each formation and tactic has a style of play. The following are used most frequently:

High-Press - This involves chasing the ball from the opposition higher up the pitch. This tactic works on the precedent that the higher up the pitch you win the ball, the short distance you have to go to get into a goal scoring position. The attackers defend first and the midfield aim to win the ball in the opposition half.

Tiki-Taka - This requires intricate passing and fluid movement between every player on the field, the key to its success is overloading the midfield area with technically skilful players who can retain possession of the football.

Counter-attack - A counter-attack starts when a team steals the ball and launch into an attack at speed. The tactic involves dropping deep, allowing the opposition to have the ball and come forward with it, committing players forward and leaving gaps in behind as they go.

<https://blog.pitchero.com/football-tactics-explained>

Playing between the lines is another tactic which teams try to use. This is the space between each area of the team. i.e. the defence and the midfield. Playing the ball in this area can make defending more difficult for a team.



Key Skills

Passing - There are many ways to pass a football. Using the instep of your foot, outside of the foot and top (laces) part of the foot.

- Place the non-kicking foot next to the ball
- Using flexion, lift the kicking foot back ensuring the part of the foot you aim to use has been angled correctly.
- Keep your eye on the ball
- Ensure your head and upper body are placed over the ball to provide better control and balance.

Dribbling - It is important to keep the ball under close control to outwit your opponent when dribbling.

- Keep the ball close to you to ensure better control.
- Use the inside and outside of both feet.
- Take quick, small steps.
- Dribble with your head up to see spaces and opponent.

Shooting - Just like passing, there are a number of ways to shoot.

- Observe the goalkeeper's position.
- Put your non-kicking foot alongside the ball
- Keep your head down and your eyes on the ball
- Keep your body over the ball.
- Make contact with the side of the foot for accuracy and top of the foot for power.

Control - Having the ball under control helps to prepare and perform your next move with in the game.

- Keep your eye on the ball to monitor the speed and direction of the balls movement.
- Move your body behind the ball to cushion it and slow the ball down

Definitions and Key terminology

Corner Kick: A kick taken from the corner of the field by an attacker. The corner kick is awarded when the ball has passed over the goal line after last touching a defensive player.

Cross: A pass played across the face of a goal.

Dribble: Keeping control of the ball while running.

Foul: Any illegal play.

Free Kick: A kick awarded to an opposition player when a player has committed a foul.

Give and Go: (also known as a 1-2) When a player passes the ball to a teammate, who immediately one-touch passes the ball back to the first player.

Goal Kick: A goal kick is awarded to the defending team when the ball is played over the goal line by the attacker.

Man to Man Marking: A defensive system where defenders are designated one attacking player to track continuously.

Offside: A player is in an offside position if he is nearer to his opponent's goal line than both the ball and the second-to-last opponent. This does not apply if the players is on their half of the field.

Penalty Spot: The marked spot 12 yards from the goal line from which a penalty kick is taken.

Penalty: A penalty kick is awarded when a foul has been committed inside the penalty area in front of the goal.

Tackle: To take the ball away from the opponent using the feet.

Through Pass: A pass played past defenders into free space to allow a teammate to run onto the ball.

Throw-In: The ball is thrown in after the ball has crossed the touch line. A player taking a throw in must have both feet on or behind the touch line and must use a two-handed throw made from behind the head.

Zonal Marking: A defensive system where defenders mark a designated area of the field of play instead of tracking players across the pitch.

KS3 Netball

Rules and regulations of the game

- 1. Obstruction** – a player attempting to intercept or defend the ball must be at least 3ft (0.9m) away from the player with the ball. This distance is measured from the landing foot of the player in possession of the ball.
- 2. Footwork** – the landing foot cannot be moved, other than to pivot on the spot, whilst the other foot can be moved in any direction. If a player lands on two feet simultaneously, you may take a step in any direction with one foot.
- 3. Contact** – contact occurs when a player's actions interfere with an opponent's play whether these are accidental or deliberate. Interference may occur through physical contact, placing hand(s) on the ball held by an opponent and while holding the ball, pushing it into an opponent.
- 4. Replayed ball** – a player may not replay the ball. Specifically you cannot; lose control of the ball and pick it up again, catch a rebound from a shot on goal if the ball has not touched the post or another player, toss the ball into the air and catch it again without it being touched by another player.
- 5. Offside** – a player with or without the ball cannot move into an area of the court that is not designated for their position.
- 6. Held ball** – when a player has possession of the ball for more than three seconds without passing it.

<https://www.englandnetball.co.uk/>
<https://www.englandnetball.co.uk/make-the-game/officiating/rules-updates/>

Key positions

- Goal shooter – to score goals and to work in and around the circle with the GA
- Goal attack – to feed and work with GS and to score goals
- Wing attack – to feed the circle players giving them shooting opportunities
- Centre – to take the centre pass and to link the defence and attack
- Wing defence – to look for interceptions and prevent the WA from feeding the circle
- Goal defence – to win the ball and reduce the effectiveness of the GA
- Goal keeper – to work the GD and to prevent the GA/GS from scoring goals



Tactics

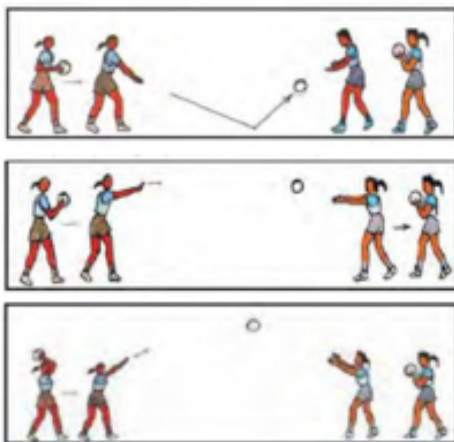
- Reading the play – good netball players have the ability to be able to read the play and immediately react to it and predict what will happen.
- Positioning – good netball players are able to position themselves between their player and the ball or in the goal area between the shooter and the ring. Good players are also able to position themselves so as not to crowd one area of the court, and have the awareness to move out of a crowded area and into space.
- Timing – timing is an essential part of netball and all good netball players have the ability to time their movements to near perfection. Good netballers also have the ability to time their pass of the ball so it is just in front of the player that they are passing to in order for the player to run onto the ball, and not have to stop and turn to get the pass.
- Communication – in a game of netball, communication is a key area, and good netballers have the ability to communicate with their team mates on and off the court in the most effective ways.
- Skill selection – skill selection is a major reason for good players being successful, this is due to the players having the decision making skills to know when to use what type of pass, who to pass to and where they need to be on court.

Introduction to tactics – <https://www.youtube.com/watch?v=WvRNenTQ9rk>
 Defensive tactics – <https://www.youtube.com/watch?v=4c-bMycWm2A>
 Attacking and passing ideas – <https://www.youtube.com/watch?v=P9qu84KmWv4>

Key Skills

- Bounce pass** Stage one; feet shoulder width apart in opposition, with knees bent. Place hands each side and slightly behind the ball, with the fingers comfortably spread. Hold the ball at waist level, with elbows tucked in. Stage two; step in the direction of the pass, through extending your legs, back and arms. The wrist and fingers should be forced through the ball releasing it off the first and second fingers of both hands. Follow through with the arms fully extended, fingers pointing at the target and thumbs pointing to the floor.
- Chest pass** Stage one; stand with feet shoulder width and on the balls of your feet, with back straight and knees slightly bent. Place hands on the sides of the ball with the thumbs directing behind the ball and fingers comfortably spread. Stage two; the ball should be held in front of the chest with the elbows tucked in. Step in the direction of the pass, by extending their legs, back and arms. Push the ball from the chest with both arms (not from one shoulder). Fingers are rotated behind the ball and the thumbs are turned down. Stage three; the back of the hands face one another with the thumbs straight down. Make sure the ball is released off the first and second fingers of both hands. Follow through to finish up with the arms fully extended, fingers pointing at the target and thumbs pointing to the floor.
- Shoulder pass** Stage one; player's feet should be shoulder width apart in opposition. Opposite foot forward to throwing arm. Stand on balls of feet with toes pointing toward target, and knees slightly bent. Hold the ball at head height, slightly behind your head. Elbow should be at a 90degree angle. Fingers spread behind the ball. Stage two; step in the direction of the pass by transferring your body weight from back foot to front foot. Pull the arm through with the elbow leading. To follow through, fully extend your arm and wrist. Point your fingers in the same direction as the pass, with palms facing down.

- Shooting** Stage one; stand with feet shoulder width apart on the balls of your feet, keep the body straight in a forward-facing position. Stage two; place non-shooting hand on the side of the ball and the shooting hand at the back of the ball. Fingers are slightly open, with the ball resting in the fingers, holding the ball high above the head. Elbows slightly flexed, lined in the direction of the post. Flex knees and elbows, not allowing the ball to drop behind your head. Stage three; extend the ankles, knees and elbows. Flex the wrists as the ball is released off the fingers. Straighten your legs by extending the knees at the same time as you release the ball. End the shot standing on tiptoes with your arms extended and fingers pointing towards the ring.
- Pivoting** Stage one; run towards the ball and jump by extending the legs and ankles. Keep your eyes firmly fixed on the ball. Bring your hands out in front of your body at chest height with fingers spread open and pointing up. Stage two; in the air catch the ball with thumbs an inch or two apart making a 'W' shape. Land on the ball of one foot on the group. Flex your knee and ankle as your foot hits the floor. Stage three; stand with knees slightly bent and your feet shoulder width apart. Bring the ball into your body to protect it. Pivot by rotating yourself on the ball of your landing foot. Keep your upper body straight and head up. Make sure the hip of your pivoting leg is pointing in the direction you are aiming to pass the ball in. You can move or step with the other foot any number of times. You are not allowed to lift the foot you are pivoting on before you release the ball.



Definitions and Key terminology

- Bounce pass**; a bounce pass is a short pass that enables the player to find a teammate in a crowded area. The height of the ball makes it difficult for the opposition to reach and intercept.
- Centre circle**; is the circle in the middle of the court. It is where the centre starts the game after a goal.
- Chest pass**; a chest pass is a very fast and flat pass. This enables a team to move quickly up a court in a precise and accurate fashion.
- Contact**; when a player's physical action interferes with their opponents ability to play whether accidental or deliberate.
- Dodging**; a quick change in direction aimed at losing your opponent to get the ball.
- Feeding**; when a player passes the ball into the goal circle from outside the ring.
- Shoulder pass**; a shoulder pass is a very dynamic, fast and long pass. This enables a team to switch positions on court very quickly to find a player in space or break defensive screens.
- Pivoting**; the pivoting action is a swivel movement that allows the player to move on a fixed axis to either pass or shoot.
- Rebound**; jumping to recover the ball in the goal area after a missed shot.
- Spatial awareness**; a player's ability to understand their place in a space without running into or crowding other players.

KS3 Handball

Rules and regulations of the game

Each match consists of **two periods of 30 minutes** each.
 Each team consists of **7 players; a goalkeeper and 6 outfield players**.
 There is semi-circle area around each goal area. There is also a dashed semi-circle line which lies 9 metres from goal, which is the free throw line.
 Outfield players can touch the ball with any part of their body that is above the knee.
 Once a player receives possession, they can pass, hold possession or shoot.
 If a player holds possession, they **can dribble or take three steps** for up to **three seconds** without dribbling.
 Only the goalkeeper is allowed to come into contact with the floor of the goal area.
Goalkeepers are allowed out of the goal area but must not retain possession if they are outside the goal area.
 To win in handball you must score more than your opponent.
 If the game is drawn then there must be a winner; then periods of overtime with a maximum of 2x 5 minute periods are played. If the scores are still level, a shoot-out is used to determine the result of the game.

<https://www.englishhandball.com/>



Key positions

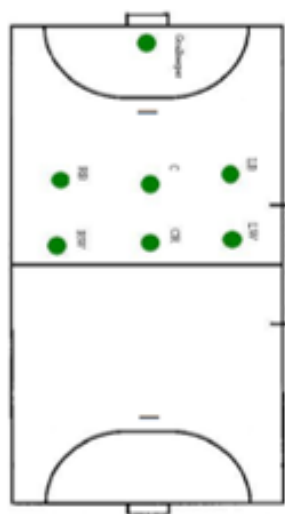
Goalie: This player defends the team goal against the opposition who are attempting to score goals. The goalkeeper is the player permitted to field inside the goal area and the only player who can use his legs to kick the ball.

Left and Right backs: When defending, these players will block the shots and pass to the centre. This players also attack and will usually shoot from longer distances.

Centre: Both an attacking and defensive player which is also called a 'playmaker'. They are positioned largely around the midcourt area and their role is to initiate the offensive play, shoot, or try to penetrate the opponent's defence.

Left and Right wingers: These players will be aiming to score the goals to win the game from difficult angles. Every player can act as an attacker during the game and these players will use pace to create openings to score.

Circle player/runner: The main player in attack who helps defend from the front and creates openings for teammates and gets into shooting positions.



Definitions and Key terminology

Block (blocking the ball): This relates to the body of a player interfering with the normal shot of the receiver.

Bounced Shot: This is a when a player is shooting at the goal with the ball hitting the floor on its way.

Corner Throw: The handball corner throw is given when the ball is played over the goal line (or either side of the goal) by a defending player.

Court Player: All outfield players are called court players. This does not include goalkeepers.

Court Referee: The court referee stays behind the attacking team. He watches for any defensive or offensive fouls or possession violations committed by the court players.

Dive Shot: It is a way of shooting by jumping above the floor towards the goal. It is done without touching the d-line.

Exclusion: Exclusions occur for assault. The excluded player's team has to play with one player less for the rest of the game.

Faking: This is a tactic used to trick the opponent with a hand or body movement e.g. fake pass, fake shot etc.

Goal Area: A D-shaped area six metres from the goal that is used only by the goalkeeper.

Man Marking: A defensive strategy where a defender marks a specific opposition player to guard in the game.

Rebound: The term referring the way the ball bounces backwards after hitting the bars of the goal post.

Zone Defence Systems: A handball zone defence system means a team marking the area of the pitch instead of marking an individual player.

Key Skills

www.bbc.co.uk/bitesize/guides/z32qmbn/revision/5

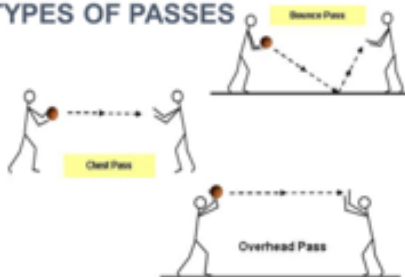
Catching – Stand shoulder width apart, facing the direction of the ball. Move towards the ball and move hands towards the ball and once caught, close fingers around the ball and flex your elbows to bring the ball into your chest.

Shoulder / Overhead pass – Stand shoulder width apart and sideways on. The throwing arm should be behind your head at a 90° angle and the non-throwing arm should be pointing towards your intended target. Finally, transfer your weight from your back foot to your front foot, rotating your hips towards the target. Follow through the pass with your throwing arm pointing towards the target.

Bounce pass – Hands should be in a W shape on the ball with your elbows out. Pass is made from chest and should be bounced just over ½ way between the passer and the retriever. As the ball is released, step forward to ensure more power is given.

Chest pass – Holding the ball at the chest, keep two hands behind the ball with elbows out. Push the ball in a horizontal motion and step forward as the ball is released.

TYPES OF PASSES



Vertical Jump Shot – This is a power and speed shot towards goal. Face the target and be on your toes. Extend your knees, transferring your body weight from low to high. Release the ball at its highest point of the jump and throw sharply downwards towards the goal.

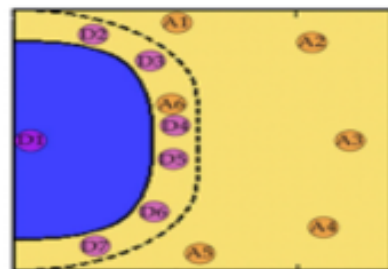
Dribbling – Be on your toes and stand shoulder width apart. Using your fingertips, push the ball downwards, extending the shoulder and elbow and flexing the wrist. Keep your head up and the ball a maximum of 1m in front of you. Bounce the ball at waist level and repeat the technical skill to maintain the bounce.



Tactics

The most common formations can be 6:0 (six players on the goal area line), 5:1 (5 players on the goal area line, one player in front of them), 4:2, 3:2:1 (open defence), or 3:3, 1:5 (open defence).

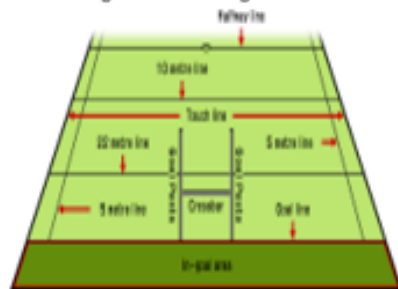
Zone Defence is a standard tactic to ensure a team protects their area and goal. When a team loses possession, the aim to retreat and form a barrier around the area to avoid conceding a goal. Each defender protects one area of the court.



Sidestepping is a skill which can be both tactical and technical. It is an element of the attacker's basic movement. They will perform a side-step by continually moving sideways mainly across the width of the handball court dimensions to create a space for a pass or dribble.

KS3 Rugby

Rules and regulations of the game



There are several ways to score points.

A try - five points are awarded for touching the ball down in your opponent's goal area.

A conversion - two points are added for a successful kick through the goalposts after a try.

A goal kick - three points are awarded for a penalty kick or drop goal through the posts.

Penalty - is given if there is an infringement of the rules

Offside - If a player is in front of a team-mate in possession of the ball, or in front of a team-mate who last played the ball, they will be offside if they:

Actively try to play the ball

Do not retreat within 10m of an opponent who is waiting for the ball

Move towards the opponents or the place where the ball lands without first coming back onside

The referee will award a penalty at the place where the offence took place.

Players and Substitutes - A team can field only 15 players at any one time. Their squad can consist of 8 substitutes/replacements- Some can come off the bench due to injuries, while others are substitutions are for tactical reasons. A team cannot substitute a player who has been shown a red card.

<https://www.englandrugby.com/governance/rules-and-regulations/regulations>

Each game consists of **80 minutes** (40 minutes in each half) with **15 players on each team**. The aim of the game is simple - use the ball to score more points than the other team. You can run with the ball, kick it and pass it, but passing forwards is not allowed. Rugby union is a contact sport, so you can tackle an opponent in order to get the ball, as long as you stay within the rules.

There is a referee, aided by two touch judges (one on each side of the pitch), to decide how the rules should be applied during a game.

Key positions

Front row - a long with the hooker, the loose-head and tight-head props make up what is known as the front row.

Second row - the second row forwards (also known as locks) are the engine room of the scrum and the target men in the lineout.

Flankers - Out of all the rugby positions, they are more often than not at the centre of the action - winning balls at the ruck and maul, collecting short passes from tackled players and making their own big tackles in open play

Number eight - Support play, tackling and ball-carrying are the No.8's areas of expertise, making his or her duties similar to the two flankers. Together the trio forms a unit called the back row.

Scrum half - Acting as the link between the forwards and the backs, the scrum-half is the key rugby positions when it comes to building attacks

Fly half - The heartbeat of the side and arguably the most influential player on the pitch. Almost every attack will go through the fly-half.

Centres - The inside centre is often the more creative in a centre pairing and should be able to pass and kick nearly as well as the fly-half. Meanwhile, the outside centre tends to be the faster of the two and the ability to offload the ball quickly to the wingers is also vital.

Wingers - laying out wide on the side of the pitch, the winger is a team's finisher in the attack.

Full back - Lining up behind the entire back line, the fullback is the closest thing that rugby has to a sweeper in defence.

The image shows the variety of positions, most common on the field of play.

<https://www.rugby.co.uk/rugby-positions-roles-beginners/>



Tactics

Developing tactics requires a thorough understanding of your team's strengths. These tactics will be in part forward dominated and power based, and also reliant on the creation of space and use of pace. As important, is an awareness of the team and individuals you're up against - and the tactics they are likely to employ.

Using power

Using the physical strength of the forwards, in scrums and rolling mauls, can result in significant territory gain. Forward players can 'pick and drive' (gather the ball and take it forward with the support of team mates) until the moment is right to release it to the backs.

Creating space

For all its many complexities, Rugby remains a simple game in essence. Points will be scored when a player is put into space and when an attacking team out-numbers those in defence. As such, Rugby's holy grail lies in the creation of space. There are many tactics geared towards this, but primarily it's about winning quick ball to move the passage of play away from a concentration of players whilst injecting pace and creativity in attack to make space for a player to score.

<https://passport.worldrugby.org/?page=beginners&p=18>

Key Skill

Passing - Hold the ball in front of your body in two hands with fingers spread on either side.

- To pass left-right hand for power (towards back of the ball) and left for aim (towards front of the ball). Keep power arm high (elbow up) for accuracy and distance.
- Fluid motion to release the ball with arms swinging like a pendulum in front of the body, first away from then towards the intended target. Follow through with the hands pointing towards the receiver at point of release.
- Players should nearly always look to carry the ball in two hands, ready to pass to supporting players either side of him/her.
- Receivers should always have their hands up which is the target for the passer.

Rucking - ruck is a phase of play where one or more players from each team, who are on their feet, in physical contact, close around the ball on the ground

- Get low by dropping the hips when approaching the ruck.
- Keep your head up and back straight, and look at the target.
- Drive into the target, forward and up.
- Shorten your stride as you approach the ruck
- Drop your hips to get low, don't bend your back.
- Keep your eyes on the target and drive beyond the ball.

Tackling - A rugby tackle is quick, simple, and safe if you keep your head up and lead with your shoulder. A good tackle has several components, and mastering them will prevent injuries and bring down opponents with ease:

- Start in an athletic position, on your toes to adjust to the attacker's movement.
- Lead with your shoulder, driving it into their thigh or stomach.
- Keep your head up, tucking it along the butt of the attacker.
- Wrap your arms around their thighs, squeezing in to take them off balance.
- Let your momentum carry your shoulder through them, using your arms to 'squeeze' them to the ground with you.

Maul - A maul occurs when three or more players, including the ball carrier and at least one other player from either side, are in contact together.

- What makes the maul different to the ruck is that the ball is not on the ground but in hand.
- Players joining the maul must have their heads or shoulders no lower than their hips and must have at least one arm bound to a team-mate.

Definitions and Key terminology

Attack - move the ball forwards in order to score

Conversion - kick for goal after scoring a try, for two extra points

Drop goal - drop kick through the goalposts during normal play, worth three points

Drop kick - kick in which the ball is dropped to the ground before being struck with the foot

Forward pass - illegal pass thrown to a position ahead of the player who threw it

Foul - an infringement of the laws; illegal play

Try line - line at each end of the pitch on which the goalposts are erected

Knock-on - foul of knocking the ball forward, towards one's own goal

Line-out - formation of forwards into which the ball is thrown to restart play after the ball goes into touch

Maul - convergence of players around a ball carrier to push him and the ball forward

Obstruction - foul of obstructing a player by blocking, tripping, shirt-pulling, etc.

Pass - throw of the ball to a team-mate

Penalty kick - free kick awarded by the referee that can be used to kick for goal

Place kick - kick taken by placing the ball on the pitch, stepping back and then moving in and kicking it

Ruck - pack of linked players that forms over a ball to push the opposing team backward and gain control of the ball

Scrum - players from one team link arms, bend over and push forward against a similar group from the opposing side

Tackle - stop a player from running with the ball by wrapping arms around him and bringing him to ground

Touch - area outside the two touchlines

Touchline - one of two lines that form the long sides of the playing area

Try - act of taking the ball over the try line and grounding it to earn five points

Try line - line at each end of the pitch on which the goalposts are erected

Yellow card - card shown to a player being cautioned and sent off the pitch for ten minutes

KS3 Badminton

Rules of the game

1. The shuttlecock must be served diagonally.
2. The side that wins the rally is awarded the point.
3. If server wins point they continue to serve until a point is lost.
4. Serving is alternated between opponents when server loses a point.
5. First to 21 points wins, if 20-20, the side that gets 2 clear points wins, if 29 all first to 30 wins.
6. The shuttle must always be served diagonally and the serving side will depend on you own score. If your score is an odd number you serve from the left, if it is an even number you will serve from the right.
7. A point will be given to the opposing side if the net is touched by the racket or person.

Key positions

To always position yourself in the middle of the court after you make your shot (dominate the T)

In doubles you need to make a decision whether you are playing front and back or side to side. With front and back, when serving stay front and when receiving stay where the opposition has aimed the shuttlecock e.g. stay back if long serve or front for short serve.

<https://web.mst.edu/~ima/rules/Badmintonrules.html>

Rules of the game video - <https://www.youtube.com/watch?v=UyLi-TbcFc>

Key Skills

Serving - Stroke used to put the shuttlecock into play at the start of a rally either long or short.

Overhead clear - A shot hit deep to the opponents back boundary line. The high clear is a defensive shot.

Underarm clear - A shot hit deep to the opponents back boundary line. The high clear is a defensive shot.

Overhead smash - Hard-hit overhead shot that forces the shuttle sharply downward. Badminton's primary attacking stroke.

Drop shot - A shot hit softly and with finesse to fall rapidly and close to the net on the opponent's side.

Positioning - be able to put you opponent to a certain area of the court to open the area to win with your next shot e.g. overhead clear to back of the court then use a drop shot at the front.



Court markings

Below shows where you must serve from and what parts of the court are in and out on serve.

It also shows what parts of the court are in and out during a rally (after serve) in singles and doubles.



<https://www.badmintonengland.co.uk/#>

Definitions and Key terminology

Fault - A violation of the playing rules, either in serving, receiving, or during play.

Let - A legitimate stoppage of play to allow a rally to be replayed.

Rally - Exchange of shots while the shuttle is in play.

Shuttlecock - Official name for the object that the players must hit.

Clear - A high and deep shot to the back of the court.

Love - The score at the start of the game or where a player has not scored a point.

Smash - A fast and hard shot from above the head to force the shuttle downwards to the floor.

Singles - Game involving 2 players in a 1v1 match

Doubles - Game involving 4 players with 2v2 on the court.

Links to other sports and transferable skills

Teamwork, Leadership, Resilience, Respect, Spatial awareness, Verbal communication, Coordination, Agility, Reaction time

Tactics

The basic strategy is to apply maximum movement pressure to your opponent.

The central base position - always take the central position after each shot

Hitting the corners - aim for corners on side of the court to get opponent out of position.

Hitting to the body - make it difficult for opponent to return an effective shot.

Building shots - don't try and win the point straight away, get your opponent out of position on the court to allow you to attempt a winning shot.

Winning shots - use when appropriate during a rally.

Using deception - to outwit your opponent so they don't know what shot you are going to make.

