



WINTERSTOKE  
HUNDRED  
ACADEMY

Knowledge  
Organisers



Term 3 and 4  
Year 7

# Contents

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How to revise



Flashcards



Mind maps



English



Maths



Science



DT



PE



Languages



History



Geography



R.S.



Music



Art



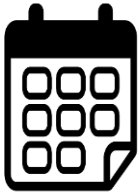
Drama



Computer Science

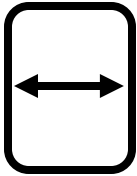
# How to revise

## Successful Learning Takes Place Over Time

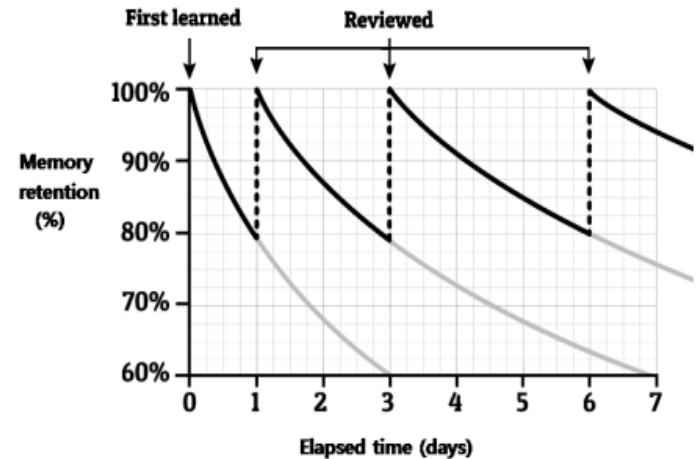


It's rare for anyone to be completely comfortable with something they learn for the first time. This could be a new piece of music, dance move, language or chemistry. We all have to practice. In most instances, the aim is to be at your optimum on the day it matters, e.g. the performance, race or exam. Everything leading up to this point is part of the process of improving. It's about the long-term rather than the short-term, which also means there are no quick fixes. During this period, it's okay to make mistakes; it's okay to feel frustrated. What matters is what you do about it.

## Space out your learning on a subject



Spacing out your learning over time is far more effective than last-minute cramming. This is based on research into how we forget and how we remember. The speed at which we forget something will depend on many factors such as the difficulty of the material, how meaningful it was to us, how we learned it and how frequently we relearn or remember it. The last factor tells us that when we learn something for the first time, we need to review it quickly afterwards. The more times we force ourselves to remember something, the longer the gap between reviews, which the diagram below illustrates nicely. The Leitner system and Cornell Notes mentioned earlier provides a wonderful way of achieving this, but the principle applies to all of the learning strategies mentioned in this booklet



# Revision strategies

## List It



This is a simple free recall task that is very versatile. It can feel challenging, but this is a good thing, and it provides clear feedback on what you do and don't know. Choose a topic, set yourself a time limit and...

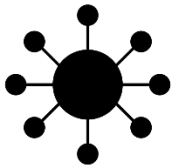
- List as many keywords as you can
- List as many facts as you can
- List as many key events/quotes/individuals as you can
- List as many causes of X as you can
- List as many consequences of Y as you can

## Flashcards



Flashcards have the potential to be a powerful learning aid. However, how successful this is will depend on the thought you put into making them in the first place and then how they're used. It's very important to remember that they're for testing, not summarising

## Mapping



Mapping is a brilliant way of organising and learning information, demonstrated on various pages in this booklet. It helps you break down complex information, memorise it, and see the connections between different ideas.

## Self-testing



Research has shown that every time you bring a memory to mind, you strengthen it. And the more challenging you make this retrieval, the greater the benefit. Self-testing improves the recall of information, transfer of knowledge and making inferences between information. Equally, there are many indirect effects, such as a greater appreciation of what you do and don't know, which helps you plan your next steps.

# Flashcards



Flashcards are small sheets of paper or card with matching pieces of information on either side. They are a useful tool for learning facts and allow you to quickly check whether you have remembered something correctly.

## When making and using flashcards:

### Do:

- ✓ ...make flashcards quickly.
- ✓ ...put a single piece of information of each flashcard.
- ✓ ...sort your flashcards according to your confidence with them (see below).
- ✓ ...test yourself on the flashcards from memory.

### Don't:

- X ...spend more time making flashcards than actually using them.
- X ...put lots of information onto each flashcard.
- X ...revise the flashcards in the same order every time that you use them.
- X ...only read through flashcards.

1861	groynes	osmosis	Where is the pharmacy?
Pasteur published his paper about germ theory.	A low wall on the coastline which slows longshore drift	Net movement of water from a high concentration to low concentration across a partially permeable membrane	Où est la pharmacie?

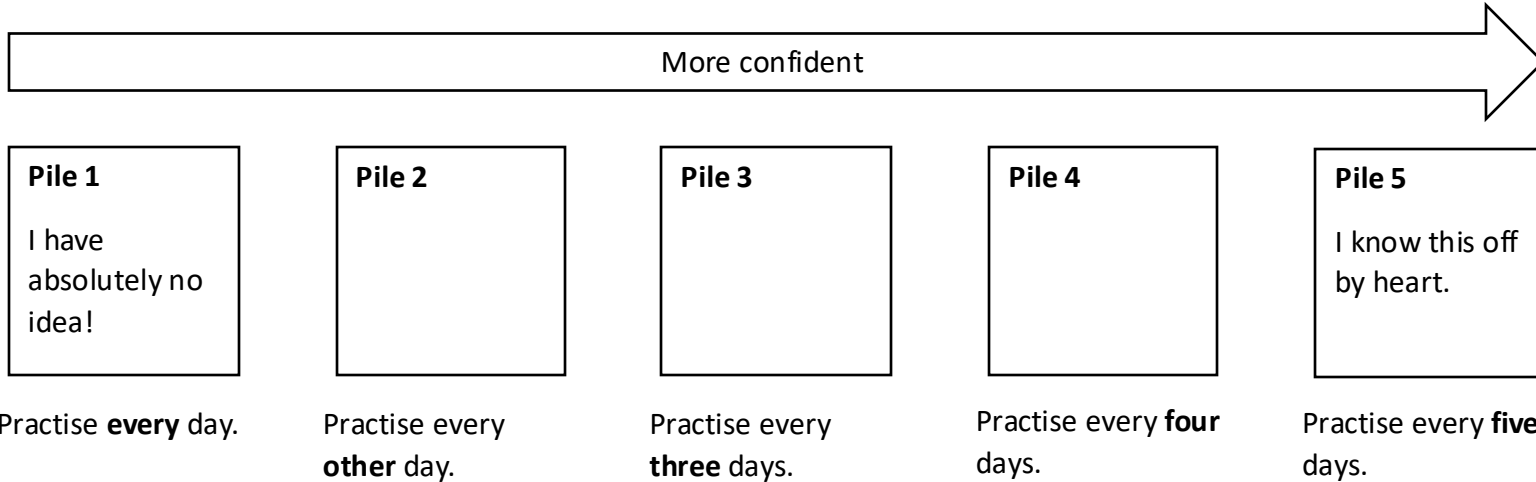
## How to make flashcards:

- You can buy a set of flashcards or use a free website such as Quizlet.
- Find the information you want to put onto flashcards using your existing revision resources (e.g. a knowledge organiser).
- Fold a piece of A4 paper into 10.
- Write the questions on the top half of the paper.
- Write the answers on the bottom half of the paper.
- Cut the paper along the dotted lines shown here.
- Fold the strips of paper so that the writing is on either side.

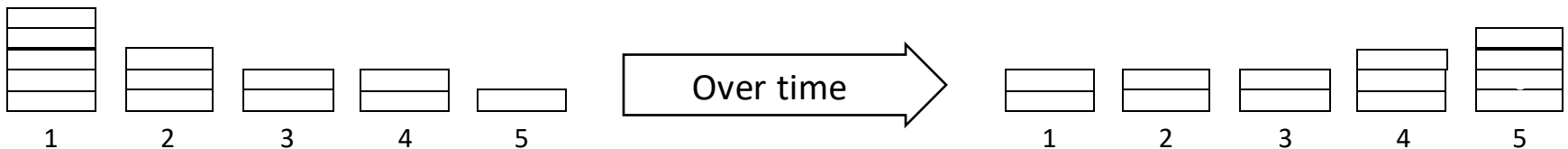
Definition 1	Definition 2	Definition 3	Definition 4	Definition 5
Answer 1	Answer 2	Answer 3	Answer 4	Answer 5

## How to use flashcards:

1. Test yourself using the flashcards.
2. As you test yourself, sort the flashcards into up to five piles according to how confident you are with the content.
3. Put the piles into numbered envelopes (1-5).
4. Test yourself on the different piles on different days (see below):



5. As you test yourself on the different piles, move the cards into different piles as you become more confident








## Useful resources:


[www.quizlet.com](http://www.quizlet.com) – This free website allows you to quickly create flashcards which you can print, use on a computer, or use on your phone.









**Key Words 1** 

<b>Protagonist:</b> central character, usually a hero	<b>Antagonist:</b> central character, usually the enemy of the protagonist
<b>Apprentice:</b> a person who is learning a trade from a skilled employer:	<b>Benefactor:</b> a person who gives money or other help to a person or cause. 
<b>Deceptive:</b> giving an appearance or impression different from the true one; misleading.	<b>Malicious:</b> characterized by malice; intending or intended to do harm.
<b>Tyrannical:</b> exercising power in a cruel way.	<b>Malevolent:</b> having or showing a wish to do evil to others.
<b>Sinister:</b> giving the impression that something harmful or evil is happening or will happen 	<b>Impoverished:</b> (of a person or area) made poor. 
<b>Maturity:</b> a sign/behaviour which shows growing up; seriousness	<b>Justice:</b> fair behaviour or treatment 


**Techniques** 

<b>Metaphor:</b> A comparison between two things where one thing is identified as something else E.g. 'The moon is a ghostly galleon'	<b>Personification:</b> Where an inanimate object is described as having human characteristics E.g. The trees danced in the breeze	<b>Symbolism:</b> Where an image represents an idea E.g. the dawn of a new day represents hope	<b>Imperative verbs:</b> Words which are used to issue commands
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**Reading Terms** 

<b>Inference:</b> An inference that comes from identifying clues in a text 	<b>Deduction:</b> An understanding based on clues in a text 
<b>Connotation:</b> An idea or meaning suggested by a word. Sometimes there may be several connotations to a word	<b>Prediction:</b> Clues in the text suggest a possible ending or next step 





The plot 	
1-6	Christmas Eve, afternoon: Pip meets the convict (Abel Magwitch) who asks him to steal a file and wittles for him. Joe and Mrs Joe are introduced. Joe is lovely and Mrs Joe is shown to hit Pip for no reason. Guns signal escaped convicts; Pip steals food and equipment and suffers from “wild fancies” caused by his guilt. When Magwitch is caught fighting with Compeyson, he confesses Pip’s crime.
7-13	Pip and Joe’s limited education is compared. Miss Havisham requests Pip to visit. Mr Pumblechook takes Pip to meet Miss Havisham. He then meets Estella and falls in love. Estella bullies Pip and makes him cry. She highlights his poor breeding by calling him “a common labouring boy”. Pip starts an apprenticeship with Joe which he resents. Estella is sent away to learn how to be a lady. Pip confesses to Bidy that he wants to become a gentleman.
14- 19	Pip is shown to look down on Joe and his lack of education. Joe is shown to be kind and thoughtful towards Pip. Mrs Joe is asaulted by Orlick which results in Joe fighting and Mrs Joe being disabled. She becomes a nicer person and Bidy moves in to care for her. Jagers invites Pip to become a gentleman in London with “great expectations” from a secret benefactor.
20-26	Pip lives with Herbert Pocket, Miss Havisham’s nephew and learns how to be a gentleman. He thinks Miss Havisham is his secret benefactor. He learns Miss Havisham’s wedding story. Jagers shows Pip, Molly his housekeeper as a bullied, low woman he saved. Pip doesn’t realise d Molly is Estella’s mother.
27-33	Bidy writes to Pip asking if Joe can visit him in London. Pip is condescending to Joe and looks down on him in front of Henry. Pip starts to think that Pumblechook is his patron. He visits Miss Havisham and declares his love for Estella. He waits for Estella in London where she is visitin g.
34-39	Pip and Herbert accumulate large debts. Mrs Joe dies. Pip comes of age (November) and becomes responsible for his finances. Pip escorts Estella to Miss Havisham where he learns of her engagement to Bentley Drummond. He quarrels with Miss Havisham and Estella then leaves broken hearted. Pip is now 23. Magwitch returns and reveals he is Pip’s benefactor.
40-44	Magwitch stays with Pip under the name Provis to disguise his identity. Jagers confirms that Magwitch is the benefactor. Herbert advises Pip to get Magwitch out of the country. They learn about Magwitch’s life. Pip declares his love for Estella again, but she is set to marry Drummond.
45-50	Pip feels he is being watched. Pip dines with Jagers and learns that Estelle is married. Wemmick explains that Molly is Estella’s mother, and that Magwitch is her father. Pip reminded Magwitch of Estella which his why he decided to help him. Miss Havisham confesses all and is killed in a fire at her house.
51-59	Jagers explains Estella’s adoption and advises Pip to keep it a secret. Magwitch’s escape is thwarted. Compeyson is drowned and Pip is reconciled to his benefactor. Pip’s wealth is forfeited to the crown. Magwitch is convicted and sentenced to death. Pip tells him of Estella. Pip becomes ill and is arrested for debt but rescued by Joe. Joe marries Bidy. Eleven years later Pip returns to Miss Havisham’s house and finds Estella.


## The characters 1

<p><b>Pip Pirrip</b></p> 	<p>The Bildungsroman's protagonist, an orphan who serves as an apprentice to a gentle blacksmith, Joe. When he unexpectedly comes into a fortune, Pip grows haughty and extravagant in pursuit of a lifestyle genteel enough to meet the refined standards of Estelle.</p> <p>Pip is cruelly disloyal to Joe and Biddy, avoiding them because of their lower class.</p> <p>Pip learns to judge people on their internal rather than superficial standards and redeems himself by repenting sincerely and reforming his personal values.</p>	<p><b>Magwitch</b></p> 	<p>The escaped convict that Pip meets in the churchyard as a young boy. Inspired by Pip's kindness as a young boy, Magwitch devotes his life savings to Pip. Cruelly swindled by Compeyson, he has lived in and out of prison. His criminal record is largely due to unfortunate circumstances, not character. He is kind, good-hearted and generous.</p>
<p><b>Joe</b></p>	<p>Joe is the father figure for Pip. Married to Pip's harsh sister. Joe has no formal education but</p> <p>. Joe is loyal, generous and kind. He acts lovingly to Pip, even when Pip is ungrateful.</p>	<p><b>Mrs Joe</b></p>	<p>Mrs Joe is fiery, tyrannical and false. Obsessed with social status and reputation.</p>

## The characters 2

<p><b>Mr Jagers</b></p>	<p>A famous lawyer in London, Mr Jagers is Pip's guardian and middle man between him and his patron.</p> <p>Mr Jagers also works for Miss Havisham. He is rational, sharp-minded and intimidating. He prides himself on neither expressing nor responding to human emotion.</p>	<p><b>Miss Havisham</b></p> 	<p>The wealthy daughter of a brewer, Miss Havisham was abandoned on her wedding day by her fiancé (Compeyson) and, traumatized. She preserves herself and her house in wedding regalia, shutting out the world for over twenty years. To get her revenge on men, Miss Havisham adopts and raises Estella to be beautiful and desirable but completely heartless. Miss Havisham is manipulative, bitter and until the novel's end unable to recognise anyone's pain but her own.</p>
<p><b>Estella</b></p>	<p>The adopted daughter of Miss Havisham, Estella is proud, refined, beautiful, and cold, raised by Miss Havisham to "wreak revenge on the male sex". Miss Havisham has raised her to lack a true human heart and she is unable to love.</p>	<p><b>Biddy</b></p>	<p>An orphan Pip meets at the village school. Biddy moves into the forge to look after Mrs Joe. Later she becomes a school teacher. She is humble, kind, moral and fiercely intelligent, absorbing knowledge without any formal education.</p>

Themes	
<p><b>Ambition and self-improvement</b> The theme of <i>Great Expectations</i> is quite simple: affection, loyalty, and conscience are more important than social advancement, wealth, and class.</p>	<p><b>Social Class</b> Dickens explores the class system  Victorian England, ranging from the most wretched criminals (Magwitch) to the poor peasants of the marsh country (Joe and Biddy) to the middle class (Pumblechook) to the very rich (Miss Havisham).</p>
<p><b>Crime, guilt and innocence</b> The theme of crime, guilt, and innocence is explored throughout the novel largely through the characters of the convicts and the criminal lawyer Jaggers.</p>	<p><b>Education</b> Education allows for personal growth in the novel. Joe and Biddy show how education can be a good thing. Pip receives an education that allows him to advance into a new social position, but Pip's education improves his mind without supporting the growth of his character.</p>
<p><b>Family</b> Although Pip and Estella both grow up as orphans, family is an important theme in the novel. Pip grows up with love and support from Joe, but fails to see the value of the unconditional love Joes gives him. He eventually makes up with Joe after understanding his errors. Estella is exposed to damaging values from her adopted mother, Miss Havisham, and gradually learns from experience what it means to care about someone.</p>	

Key Quotes 	
<b>Magwitch</b>	“Hold your noise!” called a terrible voice, as a man started up from among the graves at the side of the church porch. “Keep still, you little devil, or I’ll cut your throat!” A fearful man, all in coarse grey, with a great iron on his leg. A man with no hat, and with broken shoes, and with an old rag tied around his head.
<b>Estella</b>	Though she called me “boy” so often, and with a carelessness that was far from complimentary, she was about my own age. She seemed much older than I, of course, being a girl, and beautiful and self-possessed; and she was as scornful of me as if she had been one-and-twenty, and a queen.
<b>Miss Havisham</b>	“Look at me,” said Miss Havisham. “You are not afraid of a woman who has never seen the sun since you were born?”
<b>Joe Gargery</b>	“It ain’t that I am proud, but that I want to be right, as you shall never see me no more in these clothes. I’m wrong in these clothes. I’m wrong out of the forge, the kitchen, or off th’meshes. You won’t find half so much fault in me of you think of me in my forge dress, with my hammer in my hand, or even my pipe.”
<b>Pip</b>	I took the opportunity of being alone in the courtyard, to look at my coarse hands and my common boots. ... They had never troubled me before, but they troubled me now, as vulgar appendages.

### Using counters for addition and subtraction

● = +1

○ = -1

$-5 + 2 =$	$-5 + 2 = -3$ 
$-5 + (-2) =$	$-5 + (-2) = -7$ 
Subtraction is the same as...	Addition of the opposite.
$-4 - 2 =$	$-4 - 2 = -4 + (-2) = -6$ 
$-4 - (-2) =$	$-4 - (-2) = -4 + 2 = -2$ 

### Multiplying and dividing negative numbers

Positive	$\times$	Positive	=	Positive	$-4 \times 3 = -12$
Positive	$\div$	Negative	=	Negative	$-4 \times -3 = +12$
Negative	$\times$	Positive	=	Negative	$4 \times -3 = -12$
Negative	$\div$	Negative	=	Positive	$(-3)^2 = +9$
					$-20 \div 4 = -5$
					$-20 \div -4 = +5$
					$20 \div -4 = -5$

### Priority of operations

Draw the pyramid of order of operations	
Calculations on the same row of the pyramid are <u>done</u> ..	Left to right
$10 - 5 + 2$	$10 - 5 + 2$ $= 5 + 2$ $= 7$
$12 \div 3 \times 5$	$12 \div 3 \times 5$ $= 4 \times 5$ $= 20$
Set your working out by	Writing the answer to the calculation that takes priority directly underneath
$60 - 10 \times 5$	Multiplication first: $60 - 10 \times 5$ $= 60 - 50$ $= 10$



## Sequences

A sequence is...	A list of numbers generated by a rule
A term in a sequence is...	A number in the sequence
Term to term rule	Generates the next term in the sequence
Position to term rule	Generates a term in a sequence using <u>it's</u> position
Linear sequence (arithmetic sequence)	A term-to-term rule that is add or subtract. Linear sequences are "times table like"
Geometric sequence	A term-to-term rule that is multiply or divide
To find the next term in a Fibonacci sequence	Add the 2 previous terms
Find the next term in this Fibonacci sequence 2 2 4 6 ___ ___	2 2 4 6 <b>10 16</b>
The term-to-term rule of 3 6 9 12 is	+3
The term-to-term rule of -3 -6 -9 -12 is	-3
The term-to-term rule of 5 8 11 14 17 is	+3
Generate the first 4 terms of $4n + 3$	It is the three times table, add two The four times table, add three 4, 8, 12, 16 7, 11, 15, 19
Generate the 20 <sup>th</sup> term of $4n + 3$	$n = 20$ $4n + 3 = 4 \times 20 + 3 = 83$
Difference	The gap between two terms in a sequence
Quadratic sequences	Have a constant second difference

## Multiplying and dividing fractions

$\frac{1}{8}$ of 40	$40 \div 8 = 5$
$\frac{3}{8}$ of 40	$40 \div 8 \times 3 = 15$
To multiply fractions	Multiply the numerators, multiply the denominators
$\frac{3}{5} \times \frac{1}{4} =$	$\frac{3 \times 1}{5 \times 4} = \frac{3}{20}$
$3 \times \frac{1}{4} =$	$\frac{3}{1} \times \frac{1}{4} = \frac{3 \times 1}{1 \times 4} = \frac{3}{4}$
Reciprocal	The value you multiply by to make 1. Turn a fraction upside down.
What is the reciprocal of: a) $\frac{4}{7}$ b) 4	a) $\frac{7}{4}$ b) $\frac{1}{4}$
Division is the same as...	Multiplying by the reciprocal.
$\frac{3}{5} \div \frac{1}{4} =$	$\frac{3}{5} \times \frac{4}{1} = \frac{3 \times 4}{5 \times 1} = \frac{12}{5}$
$3 \div \frac{1}{4} =$	$\frac{3}{1} \div \frac{1}{4} = \frac{3}{1} \times \frac{4}{1} = \frac{12}{1} = 12$
Which is greater: $\frac{1}{3}$ or $\frac{1}{4}$ ?	$\frac{1}{3}$
Which is greater: $\frac{3}{10}$ or $\frac{7}{10}$ ?	$\frac{7}{10}$
Steps to put fractions in order	1. A common denominator 2. Compare the numerators
Ascending order means...	Smallest to biggest
When answering a fractions question, the last step is always...	Check if you can simplify your answer

## Decimals and money




$4 \times 0.3 =$	1.2
$0.4 \times 0.3$	$= \frac{4}{10} \times \frac{3}{10} = 0.12$
$0.2 \times 3$	0.6
$0.2 \times 0.3$	$= \frac{2}{10} \times \frac{3}{10} = 0.06$
$8 \times 0.5$	8 halves = 4
$8 \div 0.5 =$	How many halves divide into 8 = 16 Dividing by a half doubles your answer
Work out $5.82 \times 4.3$	Estimate by rounding $6 \times 4 = 24$ Work out $582 \times 43$ Place decimal to make the answer close to 24
	Line decimal points up
Ordering decimals	0.3
Put these in ascending order	0.33
0.3 0.03 0.33 <u>0.303</u> 0.35	0.303
	0.35
	Compare them left to right





£3 in pence	300p
1700p in pounds	£17.00 or £17
Ella wrote £4.5 on the answer line. The mistake is	Money has two decimal places: £4.50
Shuaib wrote £7.364 on the answer line. The mistake is	Money has two decimal places: round to £7.36
Ella wrote £4.5 on the answer line. The mistake is	Money always has two decimal places: £4.50
Shuaib wrote £7.364 on the answer line. What was his mistake?	Money always has two decimal places: round to £7.36
How many 20p pieces in £1?	$5 \times 20p = £1$
How many 10p pieces in £3?	$30 \times 10p = £3$

## Proportion and best buys

5 pens cost 75p. Find the cost of 3 pens.					
If you get asked about which product is best value...	Buy the same amount of each				
A pack of 4 toilet rolls costs £1.80 A pack of 6 toilet rolls costs £2.58 Which is better value? How would you show your working?	<p>Split the page in half</p> <table border="1"> <tr> <td>Pack of 4</td> <td>Pack of 6</td> </tr> <tr> <td> </td> <td> </td> </tr> </table> <p>Pack of 6 is better value</p>	Pack of 4	Pack of 6		
Pack of 4	Pack of 6				
Currency conversion If £1 = \$1.2 How many dollars would I receive for exchanging £200?	$200 \times 1.2 = \$240$				
Currency conversion If £1 = \$1.2 How many pounds sterling would I receive for exchanging \$200?	$200 \div 1.2 = 166.66666667$ $= £166.67$ (round money to decimal places)				
Map scales A scale of 1:200 means	1cm on map = 200cm in real life OR 1cm on map = 2m in real life				
Recipe questions	Scale it up using a <u>table</u>				
<div style="border: 1px solid black; padding: 5px; width: fit-content;"> <p style="text-align: center;"><b>Ingredients to make 16 gingerbread men</b></p> <p>180 g flour 40 g ginger 110 g butter 30 g sugar</p> </div>	<table border="1"> <tr> <td>Gingerbread men</td> <td>Flour</td> </tr> <tr> <td> </td> <td></td> </tr> </table>	Gingerbread men	Flour		
Gingerbread men	Flour				

## Ratio

Simplify 12:18:30	$\begin{array}{ccc} 12 : 18 : 30 \\ \div 6 \left( \begin{array}{ccc} 2 : 3 : 5 \end{array} \right) \div 6 \end{array}$ <p>Divide all parts by the same amount.</p>
Write 3:9 in the form 1:n	$\begin{array}{c} \div 3 \left( \begin{array}{c c} 3 & 9 \\ \hline 1 & 3 \end{array} \right) \div 3 \\ 1:3 \end{array}$
If a:b:c = 2:3:5 what fraction is b?	$\frac{3}{10}$
If the question says share into a ratio 2:3...	<p>Draw a bar model</p> 
Alice and Ben share £400 in a ratio of 3:5. How would you draw and label the bar model?	
How would you work out 1 part in this bar model?	$400 \div 8 = 50$
How much would Alice receive in this bar model?	$400 \div 8 \times 3 = 150$
Alice and Ben share money in a ratio of 3:5. Ben receives 400. How would you draw and label a bar model?	
How much would you work out 1 part in this bar model?	$400 \div 5 = 80$

 <p>How much would Alice receive in this bar model?</p>	$400 \div 5 \times 3 = 240$
<p>Alice and Ben share money in a ratio of 3:5. Ben receives 400 more than Alice. How would you draw and label a bar model?</p> 	
 <p>How would you work out 1 part in this bar model?</p>	$400 \div 2 = 200$
 <p>How much would Alice receive in this bar model?</p>	$400 \div 2 \times 3 = 600$
<p>Combining ratios...</p> <p><math>a : b = 2 : 3</math>   <math>b : c = 5 : 3</math></p> <p>Write the ratio <math>a : b : c</math> in its simplest form</p>	$\begin{array}{ccc} a & : & b & : & c \\ & & 2 & & 3 \\ & & 3 & & 5 \\ & & 5 & & 3 \\ \text{LCM} & = & 15 & & \\ \downarrow & & & & \\ 10 & : & 15 & : & 9 \end{array}$ <p style="text-align: center;">(Note: In the original image, a red circle around the 2, 3, 5, 3 is labeled 'x5' on the left and 'x3' on the right, indicating the multiplication factors used to reach the LCM of 15.)</p>

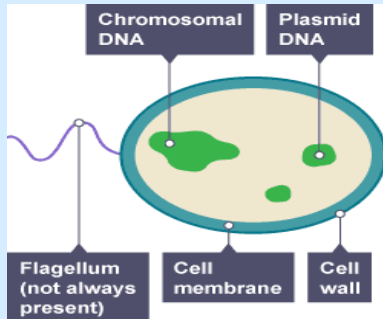
## Microbes and Disease

### 1. What are pathogens?

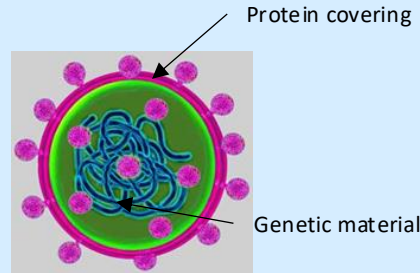
A pathogen is a micro-organism that causes diseases, for example bacteria, fungi or viruses.

Not all microbes cause diseases, some can be useful, for example, Yeast is used to make bread and alcohol.

### 2. Bacterial cell:



### 4. Virus particle



### 6. How pathogens spread:

The spreading of microbes and disease is known as **transmission**.

#### 1. Transmission by air

A cough or a sneeze can release millions of microbes into the air which can then infect somebody else.



#### 2. Transmission by water

Dirty water can transmit many diseases, e.g. cholera, which can be transmitted by drinking.



#### 3. Transmission by animals

An animal can carry a microbe from one place to another, e.g. a mosquito which spreads the **malaria parasite**.



#### 4. Transmission by contact

Many microbes can be exchanged from one person to another by **direct** or **indirect** contact:

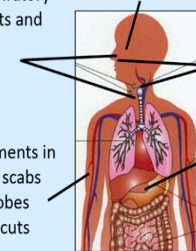
- direct contact by hand;
- indirect contact, e.g. by walking on a wet floor already contaminated by someone else who has athlete's foot;
- sexual contact.



### 7. Stopping pathogens:

**Cilia** – tiny hairs found in nose and respiratory system that wafts and traps dust

**Skin** – barrier that stops microbes entering body

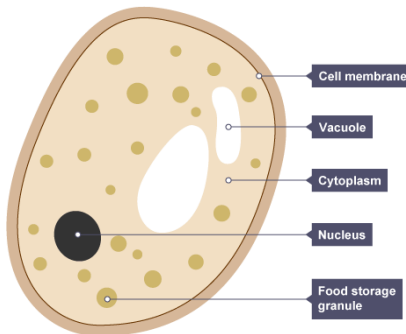


**Mucus** – in nose and respiratory tract that traps dust and microbes

**Stomach** – stomach acid kills microbes

**Platelets** – fragments in blood that form scabs to prevent microbes getting through cuts

### 3. Yeast cell (a fungus):



### 5. Microbe facts:

Bacteria	Fungi	Viruses
Unicellular organisms	Can be uni- or multi- cellular	Smaller and more simple than cells
Smaller and more simple than animal and plant cells	More similar to our cells than bacteria, larger	A protein coat surrounding some genetic material
Have not nucleus	Unicellular examples include yeast	Require a host cell to reproduce
Often have a flagellum for moving	Multicellular examples include mushrooms	



## Energy Transfers

### 1. What is Energy

**Energy** is a quantity that is stored in many objects and systems.

The amount of energy stored is a measure of the amount of **work** that object or system can do. It is measured in **joules (j)**.



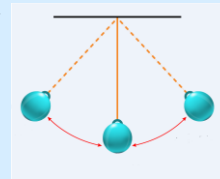
### 2. Energy Stores.

- Energy is stored in fuels as **chemical potential energy**
- Energy is stored in anything elastic when it is stretched or squashed, as **elastic potential energy**
- Energy is stored in any object that has been lifted up, because the object stores **gravitational potential energy**
- Energy is stored in moving objects as **kinetic energy**.
- Energy is stored in any object as **heat energy**. (Obviously, if it is cold, it doesn't store much heat energy!) This is also known as *thermal energy*.

### 4. Conservation of Energy

When energy is transferred from one store to another the **total amount of energy does not change**.

Energy cannot be created or destroyed. All that can be changed is how it is stored. This idea is called **the law of conservation of energy**.



### 3. Energy Transfers

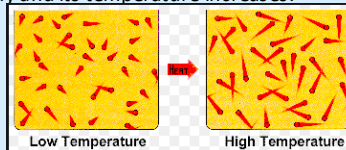
Examples to know:

- When a fuel is **burned**, energy in the chemical potential store of the fuel ends up in the thermal energy store of the surroundings.
- When an object **falls** off a shelf, the energy in the gravitational potential store is transferred to the kinetic energy store while it is falling.
- When the object **hits the floor**, all the **starting energy** in the gravitational potential store it ends up in the thermal energy store of the surroundings.
- When a spring that's been stretched is released, the energy in the elastic potential store is transferred to kinetic energy store, then to the thermal energy store of the surroundings.

### 5. Temperature

The **temperature** of an object is to do with how hot or cold it is, measured in degrees Celsius (°C).

This is due to the movement of the particles in the object. When an object is heated, its particles move more vigorously and its temperature increases.



### 6. Heating.

If there is a difference in temperature between two objects, energy is transferred from the hotter object to the cooler one. When they are at the same temperature, we say that they are in **thermal equilibrium**. The methods of transfer are:

**Conduction** - Particles bump into nearby particles and make them vibrate more. This passes energy through the substance from the hot end to the cold end.

**Convection** - The particles in liquids and gases can move from place to place, particles with a lot of energy move, and take the place of particles with less energy.

**Radiation** - The transfers of energy to their surroundings by **infrared radiation**. The hotter an object is, the more infrared radiation it gives off. No particles are can work meaning radiation works in in space

### 7. Conductor and Insulators

A substance that transfers energy easily from the hot end to the cold end it is called a **conductor**.

Examples - Metals, water, diamonds.



A substance that does not transfer energy easily from the hot part to the cold part is called an **insulator**.

Examples - Plastics, air, wool.



### 8. Power

The amount of energy transferred is called '**work done**' and is measured in joules (j)

**Power** is the amount of work done divided by the time it took to transfer all the energy. It is measured in **watts (w)**.

To calculate the **power** we use the equation:

$$\text{power} = \frac{\text{work done}}{\text{time taken}}$$

$$P = \frac{E}{t}$$

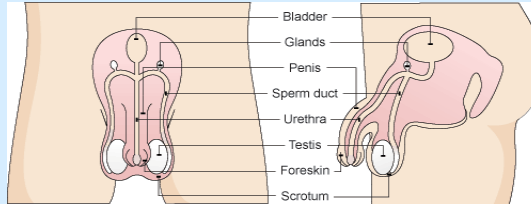
Where:

- power (P) in watts (W)
- work done (E) in joules (J)
- time (t) in seconds (s)

## Human Reproduction

### 3. Male Reproductive System

Sperm cells are produced in the testes and these are located in a bag of skin located underneath the penis called the scrotum. Sperm cells travel out of the male penis when inserted into the vagina during sexual intercourse via the sperm duct. Sperm travel in semen; a liquid produced by glands.



### 1. Puberty and Adolescence

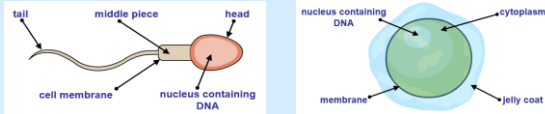
As a child develops into an adult, their body prepares for reproduction. Boys and girls begin puberty between the ages of 8-14. These physical and emotional changes are triggered by hormones released from the tests and ovaries. Girls develop much more quickly.

Some changes happen in boys only, some happen in girls only and some happen in both. Examples include underarm hair growth; facial hair growth; pubic hair growth; body odour; voice breaks; breasts develop; testes produce sperm cells; testes and penis get bigger; ovaries start to release egg cells; hips get wider; shoulders widen and growth rate increases.



### 4. Gametes

Gametes are sex cells. Sperm cells are the male gamete and egg cells (ova) are the female gamete.



Gametes have adaptations to increase the chances of fertilisation and successful development of an embryo. For example, sperm cells are produced in large numbers to increase the chance of fertilisation. Sperm cells have these adaptations:

- a tail to move them towards an egg cell
- many mitochondria to provide energy

### 5. Fertilisation

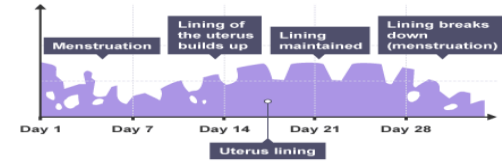
Fertilisation is when a sperm cell and an ovum fuse. Sperm cells are released into the female reproductive system during sexual intercourse (ejaculation). Only one sperm cell breaks through the cell membrane and enters the ovum, and only the head enters.



The nuclei fuse together, putting the mother and father's genetic information together. The fertilised ovum is now an embryo.

### 6. Menstrual Cycle

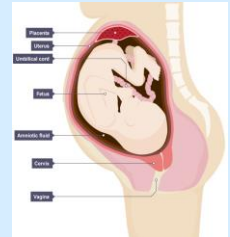
The menstrual cycle prepares the female body for pregnancy by causing eggs (ova) to mature and be released. It lasts for 28 days.



On about day 14, the mature egg cell is released from the ovary. This is called ovulation. If the egg cell does not meet with a sperm cell in the oviduct, the lining of the uterus begins to breakdown and the cycle repeats.

### 7. Gestation and Pregnancy

A fertilised egg cell divides to form a ball of cells called an **embryo**. The embryo attaches to the lining of the uterus where it gets nutrients and oxygen. It begins to develop into a **foetus** and finally into a baby.

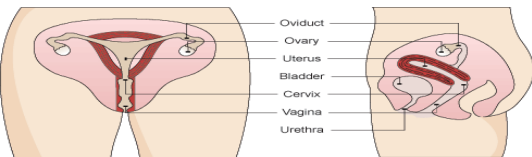


The foetus will grow an umbilical cord and a placenta. The placenta is responsible for removing waste substances, as well as providing oxygen and nutrients. The umbilical cord connects the foetus to the placenta.

The foetus is protected from bumps and knocks by the amniotic fluid sac.

### 2. Female Reproductive System

Females have 2 ovaries where the eggs (ova) are produced and matured. When the egg (ova) is released from the ovary, it travels towards the uterus along a tube called the oviduct. Ciliated cells line the oviduct to move the egg towards the uterus. The uterus is where an embryo (multiple cells) develops into a foetus (unborn baby). The cervix is a ring of muscle between the uterus and the vagina which keeps the foetus in place during pregnancy.



### 8. Birth

In humans, gestation lasts 40 weeks. This is the amount of time it takes for a foetus to develop into a baby. When the baby is ready to be born, the cervix relaxes and the muscles in the wall of the uterus contract. Muscle contractions increase in intensity and frequency, eventually pushing the baby out of the vagina. Unfortunately a baby can enter the world unhealthy. This can be due to inheriting diseases from one of the parents or due to lifestyle choices made by the mother:

**Smoking** leads to less oxygen diffusing from mother to foetus via the placenta.



Foetal Alcohol Syndrome (FAS) is when the mother drinks excessive **alcohol** whilst pregnant. This damages the baby's nervous system and brain.



## People Around Me Year 7 French ARE 2

Que penses-tu?	What do you think?
J'adore ♡♡	I love
J'aime ♡	I like
Je n'aime pas ♡	I don't like
Je déteste ♡♡	I hate
À mon avis	In my opinion
Je pense que	I think that
Je crois que	I believe that
Selon moi	According to me

Tu es comment?	What are you like?
J'ai... Il a /elle a...	I have... He has /she has...
les cheveux	hair
longs	long
courts	short
raides	straight
bouclés	curly
ondulés	wavy
Afro / crépus	afro
blonds	blond
châtains	light brown
les yeux	eyes
bleus	blue
marron	brown
verts	green
foncés	dark
noirs	black
gris	grey
Je suis...	I am...
Il / elle est ...	He/she is...
grand (e)	tall
petit (e)	short
gros (-se)	fat
mince	thin
de taille moyenne	medium size

Tu es comment?	What are you like?
/Décris-toi	/Describe yourself
Je suis...	I am...
Gentil (-le)	Kind
Agréable	Pleasant
Joyeux (se)	Happy
Bavard(e)	Chatty
Beau/belle	Beautiful
Amusant (e)	Fun
Fort (e)	Strong
Mignon(ne)	Cute
Joli(e)	Pretty/Handsome
Jeune	Young
Parfait (e)	Perfect
Rapide	Fast
Riche	Rich
Sage	Wise
Timide	Shy
Travailleur(se)	Hard working
Triste	Sad
Vieux (vieille)	Old
Ennuyeux(se)	Boring
Casse-pieds	Annoying
Sérieux (se)	Serious
Difficile	Difficult
Sévère	Strict
Moche	Ugly
Bruyant	Noisy
Impoli(e)	Rude
Horrible	Horrible/Awful
Paresseux(se)	Lazy
Gourmand(e)	Greedy
Sportif(ve)	Sporty
Sympa	Nice

Extra detail	Extra detail
Je porte	I wear
J'ai	I have
Des lunettes	glasses
Des piercings	piercings
Le voile	a hijab
Des lentilles	contact lenses
Des tâches de rousseur	freckles
Une cicatrice	a scar
Une barbe	a beard
Une moustache	a moustache

Quelle-est ta nationalité?	What is your nationality?
Je suis...	I am...
Anglais(e)	English
Français(e)	French
Belge	Belgian
Suisse	Swiss
Allemand(e)	German
Espagnol(e)	Spanish
Somalien(ne)	Somalian
Polonais(e)	Polish
Portugais(e)	Portuguese
Bangladais(e)	Bangladeshi
Chinois(e)	Chinese
Italien(ne)	Italian
Gallois(e)	Welsh
Pakistanais(e)	Pakistani
Écossais(e)	Scottish
Irlandais(e)	Irish
Americain(e)	American

Connectives	Connectives
Mais	But
Pourtant	However
Aussi	Also
En plus	Furthermore
Parce que/car	Because
Et	And

Intensifiers	Intensifiers
Très	very
Assez	quite
Un peu	a bit
Trop	too
Extrêmement	extremely
Tellement	really

**People Around Me. Year 7 French  
ARE 2 Knowledge Organiser**

Describe yourself (appearance and personality). Family, friends (describing others), pets,

<u>Pronouns</u>	<u>Avoir – to have</u>	<u>Être – to be</u>
<b>Je</b> (I)	<b>J'ai</b> I have	<b>Je suis</b> - I am
<b>Tu</b> (you)	<b>Tu as</b> (you have)	<b>Tu es</b> – You are
<b>il</b> (he), <b>elle</b> (she)	<b>Il a</b> (he has), <b>elle a</b> (she has)	<b>il /elle est</b> - He is/she is
<b>Nous</b> (we)	<b>Nous avons</b> (we have)	<b>Nous sommes</b> – we are
<b>Vous</b> (you) (pl)	<b>Vous avez</b> (you have) (pl)	<b>Vous êtes</b> – you are (pl)
<b>ils /elles</b> (they)	<b>Ils ont /elles ont</b> (they have)	<b>ils / elles sont</b> – they are

To say “my” in French we must change how we say it to match the noun (whether it is masculine, feminine or plural). Whether you are male or female doesn’t change which word you use.

**Examples :**  
 Mon père = my dad  
 Ma mère = my dad  
 Mes parents = my parents

	<u>Masc</u>	<u>Fem</u>	<u>Plural</u>
<b>my</b>	<b>mon</b>	<b>ma</b>	<b>mes</b>
<b>your</b>	<b>ton</b>	<b>ta</b>	<b>tes</b>
<b>his/her</b>	<b>son</b>	<b>sa</b>	<b>ses</b>

**Comparisons**  
 Plus - more                      Jean est plus intéressant que Paul  
 Moins - less                      Paul est moins intéressant que Jean

**Superlative**  
 Le /la plus – the most              Jean est le plus intelligent  
 Le /la moins – the least              Marie est la moins sympa

Je m'appelle - My name is / I am called  
 Elle s'appelle - she is called  
 Il s'appelle – he is called  
 Ils s'appellent – they are called

**Adjective agreement.**  
 Remember adjectives have to agree with the noun. Normally you would add an 'e' to make the adjective feminine but check out the following rules...

Il est paresseux – elle est paresseuse  
 Il est sportif – elle est sportive  
 Il est travailleur – elle est travailleuse  
 Il est gentil – elle est gentille  
 Il est mignon – elle est mignonne  
 Il est beau – elle est belle  
 Il est vieux – elle est vieille  
 Il est sympa – elle est sympa

# Year 7 French ARE 3 Knowledge Organiser



## (1) Pronouns

je	I
tu	you (singular)
il	he
elle	she
nous	we
vous	you (plural)
ils	they (m or m/f)
elles	they (f only)

## (2) THE RULES : Regular verbs

1. Write down the infinitive (jouer/finir/vendre)
2. Chop off the ending ER/ IR/ RE.
3. Write down what's left (the stem).
4. Add the correct ending. Use the boxes below to find the correct ending

## (3) ER verbs

je	-e
tu	-es
il/elle	-e
nous	-ons
vous	-ez
ils/elles	-ent

## (4) IR verbs

Je	-is
tu	-is
il/elle	-it
nous	-issons
vous	-issez
ils/elles	-issent

## (5) RE verbs

je	-s
tu	-s
il/elle	-
nous	-ons
vous	-ez
ils/elles	-ent

## (6) Time Expressions

Le weekend	On the weekend
Le lundi, mardi	On Monday/Tuesday
Après le collège	After school
Pendant la récré	At break
Pendant la semaine	During the week
Normalement	Normally
Quelquefois	Sometimes
Rarement	Rarely
D'habitude	Usually
Tous les jours	everyday
Toujours	always

## (7) Irregular verbs

J'ai	I have
Je suis	I am
Je vais	I go/am going
Je fais	I do/make
Je dis	I say
Je bois	I drink
Je dois	I must
J'écris	I write
Je lis	I read
Je mets	I put

## (8) Regular ER verbs

acheter	to buy
aider	to help
aimer	to like
arriver	to arrive
bavarder	to chat
chanter	to sing
chercher	to look for
commencer	to start
danser	to dance
demander	to ask
dessiner	to draw
donner	to give
écouter	to listen
étudier	to study
fêter	to celebrate
gagner	to win/earn
jouer	to play
manger	to eat
marcher	to walk
nager	to swim
parler	to speak
porter	to carry/wear
télécharger	to download
travailler	to work
utiliser	to use
visiter	to visit
voyager	to travel

## (9) IR verbs

dormir	to sleep
finir	to finish
mentir	to lie
partir	to leave
sentir	to feel
server	to serve
sortir	to go out

## (10) RE verbs

attendre	to wait
defendre	to defend
descendre	to go down
entendre	to hear
fondre	to melt
perdre	to lose
répondre	to answer
vendre	to sell

## (11) Key Phrases

Qu'est-ce que tu fais?	What do you do/are you doing?
Qu'est-ce que tu fais pendant ton temps-libre ?	What do you do in your free time?
C'est / ce n'est pas	It's / It's not
très	very
assez	quite
un peu	a (little) bit
trop	too

## 7.2 People around me German Vocab List

<u>Was denkst du?</u>	<u>What do you think?</u>
Ich liebe 	I love
Ich mag 	I like
Ich mag...nicht 	I don't like
Ich hasse 	I hate
Meiner Meinung nach	In my opinion
Ich denke, dass	I think that
Ich glaube, dass	I believe that
Ich finde	I find

<u>Was für eine Person bist du?</u> <u>/Beschreib dich</u>	<u>What are you like?</u> <u>/Describe yourself</u>
Ich bin...	I am...
nett	Kind
angenehm	Pleasant
froh/glücklich	Happy
geschwätzig	Chatty
schön	Beautiful
lustig	Fun
stark	Strong
niedlich/süß	Cute
hübsch/gut aussehend	Pretty/Handsome
jung	Young
perfekt	Perfect
schnell	Fast
reich	Rich
klug	Clever
schüchtern	Shy
fleißig	Hard working
traurig	Sad
alt	Old
langweilig	Boring
nervig	Annoying
ernst	Serious
schwierig	Difficult
streng	Strict
hässlich	Ugly
laut	Noisy
unhöflich	Rude
schrecklich	Horrible/Awful
faul	Lazy
gierig	Greedy
sportlich	Sporty
freundlich	Friendly

<u>Extra detail</u>	<u>Extra detail</u>
Ich trage	I wear
Ich habe	I have
Brille	glasses
Piercings	piercings
einen Hijab	a hijab
Kontaktlinsen	contact lenses
Sommersprossen	freckles
eine Narbe	a scar
einen Bart	a beard
einen Schnurrbart	a moustache

<u>Connectives</u>	<u>Connectives</u>
aber	But
obwohl	However
auch	Also
außerdem	Furthermore
weil/denn	Because
und	And

<u>Beschreib dich</u>	<u>What are you like?</u>
Ich habe... er/sie hat...	I have... He/she has...
Haare 	hair
lange 	long
kurze 	short
glatte 	straight
lockige 	curly
wellige 	wavy
afro 	afro
blonde 	blond
hellbraune 	light brown
Die Augen 	eyes
blaue 	blue
braune 	brown
grüne 	green
dunkel/hell 	dark/light
schwarze 	black
graue 	grey
Ich bin...	I am...
er/ sie ist ...	He/she is...
groß	tall
klein	short
dick	fat
schlank	thin
mittelgroß	medium size

<u>Was ist deine Nationalität?</u>	<u>What is your nationality?</u>
Ich bin...	I am...
Engländer(in)	English 
Franzose/Französin	French 
Belgier(in)	Belgian 
Schweizer(in)	Swiss 
Deutscher/Deutsche	German 
Spanier(in)	Spanish 
Somali(er)(in)	Somalian 
Pole/Polin	Polish 
Portugiese(in)	Portuguese 
Bangladescher (in)	Bangladeshi 
Chinese/Chinesin	Chinese 
Italiener(in)	Italian 
Waliser(in)	Welsh 
Pakistani/Pakistanerin	Pakistani 
Schotte/Schottin	Scottish 
Ire/Irin	Irish 
Amerikaner(in)	American 

<u>Intensifiers</u>	<u>Intensifiers</u>
sehr	very
ziemlich	quite
Ein bisschen	a bit
zu	too
äußerst	extremely
wirklich	really

**People around me! 7.2 Knowledge  
Organiser**

Describe yourself (appearance and personality). Family, friends (describing others), pets,



<b>Pronouns</b>	<b>haben – to have</b>	<b>sein – to be</b>
<b>Ich</b> (I)	<b>Ich habe</b> I have	<b>Ich bin</b> - I am
<b>du</b> (you/singular/fam)	<b>du hast</b> (you have)	<b>du bist</b> – You are
<b>er</b> (he), <b>sie</b> (she)	<b>er hat</b> (he has), <b>sie hat</b> (she has)	<b>er/sie est</b> - He is/she is
<b>wir</b> (we)	<b>Wir haben</b> (we have)	<b>Wir sind</b> – we are
<b>Ihr</b> (you) (pl/familiar)	<b>Ihr habt</b> (you have) (pl)	<b>Ihr seid</b> – you are (pl)
<b>Sie</b> (you/polite) <b>sie</b> (they)	<b>Sie haben</b> (you have) <b>sie haben</b> (they have)	<b>Sie sind</b> – you are <b>sie sind</b> – they are

To say “my” in German we must change how we say it to match the noun (whether it is masculine, feminine or plural). Whether you are male, or female doesn’t change which word you use.

**Examples :**  
Mein Vater = my dad  
Meine Mutter = my mum  
Meine Eltern = my parents

	<b>Masc</b>	<b>Fem</b>	<b>Neut</b>	<b>PL</b>
<b>my</b>	<b>mein</b>	<b>meine</b>	<b>mein</b>	<b>meine</b>
<b>your</b>	<b>dein</b>	<b>deine</b>	<b>dein</b>	<b>deine</b>
<b>his/her</b>	<b>sein/ihr</b>	<b>seine ihre</b>	<b>sein ihr</b>	<b>seine ihre</b>

**Comparisons**

Add ‘er’ to the adjective. You can’t add the word ‘mehr’ = more.  
Er ist kleiner = he is smaller es ist billiger = it is cheaper

**Exceptions are besser (better)/größer(bigger)/älter(older)**

**Superlative**

You add an ‘-ste’ to the adjective, sometimes ‘-este’ to make it easier to say. Fred ist der Kleinste = Fred is the smallest. Ellie ist die Lauteste

**Comparing Things**

Joe ist älter **als** Fred = Joe is older **than** Fred  
Joe ist **weniger** alt **als** Fred = Joe is **less** old **than** Fred  
Joe ist **so** alt **wie** Fred = Joe is **as** old **as** Fred  
Joe ist **genauso** alt **wie** Fred = Joe is **just as** old **as** Fred

**Adjective agreement.**

Remember adjectives must agree with the noun. Normally you would add an ‘e’ to the adjective to make the plural **but if the adjective comes after the noun it doesn’t agree.**

Ich habe lange Haare = I have long hair  
Er hat braune Augen = He has brown eyes

But.....

Er ist klein = he is small  
Sie ist faul = she is lazy

Mein Name ist/ich heiße - My name is / I am called  
Sie heißt - she is called  
Er heißt – he is called  
Sie heißen – they are called

# GERMAN VOCABULARY

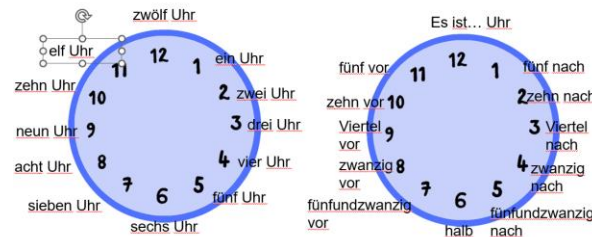
## 7.3 My life at school

Was ist dein Lieblingsfach?	What is your favourite subject?
Englisch	English
Spanisch	Spanish
Französisch	French
Theater	Drama
Kunst	Art
Sport	PE
Informatik	Computer Science
Sozialkunde	PSHE
Geschichte	History
die Musik	Music
die Technologie	Technology
die Erdkunde	Geography
die Religion	RE
die Mathe	Maths
die Naturwissenschaften	Sciences

Wie findest du...?	How do you find...?
Es ist...	It is
Es ist nicht...	It isn't
kreativ	Creative
interessant	Interesting
praktisch	Practical
nützlich	Useful
(un)bequem	(un)comfortable
teuer	Expensive
billig	Cheap
modisch	Fashionable
altmodisch	Unfashionable
schmutzig	Dirty
sauber	Clean
hässlich	Ugly

Comment est ton uniforme?	What is your school uniform like?
Ich trage ...	I wear..
einen Blazer	Blazer
einen Pulli	Jumper
ein Hemd	Shirt
ein T-shirt	T-shirt
eine Hose	Trousers
eine Krawatte	Tie
einen Rock	Skirt
die Socken	Socks
die Schuhe	Shoes
eine Strumpfhose	Tights

Verben in der Schule	Verbs at school
lernen	To study
hören	To listen
chatten	To chat
arbeiten	To work
verbringen	To spend time
spielen	To play
sich ausruhen	To rest
chillen	To relax



Wie ist dein Lehrer/ deine Lehrerin?	What is your teacher like?
sympatisch	Kind
nett	Pleasant
langweilig	Boring
organisiert	Organised
glücklich	Happy
schwierig	Difficult
einfach	Easy
lustig	Fun
böse	Angry
streng	Strict
schlechte Laune	Grumpy
stark	Strong
schön	Handsome/ pretty
furchtbar	Awful
spannend	Exciting
jung	Young
alt	old
klein	Small
groß	Tall
perfekt	Perfect
schnell	Fast
reich	Rich
laut	Noisy
intelligent	Wise
ernst	Serious
schüchtern	Shy
fleißig	Hard working
traurig	Sad
nervig	annoying



¿Qué piensas?	What do you think?
Me encanta  	I love
Me gusta 	I like
No me gusta 	I don't like
Odio/detesta  	I hate
En mi opinión	In my opinion
Pienso que	I think that
Creo que	I believe that
Según yo	According to me

¿Cómo eres?	What are you like? / Describe yourself
Describe	I am...
Soy	I am...
Amable/simpático/a	Kind
Agradable	Pleasant
Contento/a	Happy
Hablador/a	Chatty
Guapo/a	Beautiful
Divertido/a	Fun
Fuerte	Strong
Mono/a	Cute
Bonito/a	Pretty/Handsome
Joven	Young
Perfecto/a	Perfect
Rápido/a	Fast
Rico/a	Rich
Sabio/a	Wise
Tímido/a	Shy
Trabajador/a	Hard working
Triste	Sad
Viejo/a	Old
Aburrido/a	Boring
Pesado/a – molesto/a	Annoying
Serio/a	Serious
Difficil	Difficult
Estricto/a	Strict
Feo/a	Ugly
Ruidoso/a	Noisy
Maleducado/a	Rude
Horrible	Horrible/Awful
Perezoso	Lazy
Goloso/a	Greedy
Deportivo/a	Sporty
Emocionante	Exciting

Extra detail	Extra detail
Llevo	I wear
Tengo	I have
Gafas	glasses
Piercings	piercings
El hiyab	a hijab
Lentillas	contact lenses
Pecas	freckles
Una cicatriz	a scar
Una barba	a beard
Un bigote	a moustache

Cuáles tu nacionalidad?	What is your nationality?
Soy	I am...
Inglés/a	English 
Francés/a	French 
Belga	Belgian 
Suizo/a	Swiss 
Alemán/a	German 
Español/a	Spanish 
Somalí	Somalian 
Polaco/a	Polish 
Portugués/a	Portuguese 
Bangladesí	Bangladeshi 
Chino/a	Chinese 
Italiano/a	Italian 
Galés/a	Welsh 
Paquistaní	Pakistani 
Escocés/a	Scottish 
Irlandés/a	Irish 
Americano/a	American 

Connectives	Connectives
Pero	But
Sin embargo	However
Tambien	Also
Ademá	Furthermore
Porque	Because
Y	And
Intensifiers	Intensifiers
Muy	very
Bastante	quite
Un poco	a bit
Demasiado	too
Extremadamen te	extremely
Realmente	really

¿Cómo eres?	What are you like?
Tengo /Tiene 	I have... He/she has...
El pelo 	hair
Largo 	long
Corto 	short
Liso 	straight
Rizado 	curly
Ondulado 	wavy
Afro 	afro
Rubio 	blond
Castaño 	light brown
Los ojos 	eyes
Azules 	blue
Marrones 	brown
Verdes 	green
Oscuros 	dark
Negros 	black
Grises	grey
Soy...	I am...
Él es / ella es... 	He/she is...
Alto/a 	tall
Bajo/a 	short
Gordo/a 	fat
Delgado/a 	Thin

**People Around Me Year 7 Spanish ARE 2  
– Knowledge organiser**

Describe yourself (appearance and personality). Family, friends (describing others), pets.



<u>Pronouns</u>	<u>Ser – to be</u>	<u>Tener – to have</u>
yo (I)	soy - I am	tengo - I have
tú (you)	eres – You are	tienes – you have
él (he), ella (she)	es - He is/she is	tiene – he/she has
Nosotros/nosotras (we)	somos – we are	tenemos – we have
Vosotros/vosotras (you) (pl)	soís – you are (pl)	tenéis - you have (pl)
ellos/ellas (they)	son– they are	tienen – they have

To say “my” in Spanish we must change how we say it to match the noun (whether it is singular or plural).

**My (masculine) = e.g. mi padre**  
**My (feminine) = e.g. mi madre**  
**My (plural) = e.g. mis padres**

	Singular	Plural
my	mis	mis
your	tu	tus
his/her	su	sus

**Comparisons**

más	- more	Juán es más interesante que Pablo
menos	- less	Pablo es menos interesante que Juan
tan...como	- as...as	Pablo es tan interesante como Juan

**Superlative**

El/la más	– the most	Juan es el más inteligente
El/la menos	– the least	María es la menos simpática

Me llamo – My name is/ I am called  
 Se llama – he/she is called  
 Se llaman – they are called

***To say “I like” in Spanish we must change how we say it to match the noun (whether it is singular or plural)***

For singular nouns = **me gusta** e.g. me gusta mi madre  
 For plural nouns = **me gustan** e.g. me gustan mis padres

***This is the same for the verb 'I love'***

For singular nouns = **me encanta** e.g. me encanta mi abuelo

For plural nouns = **me encantan** e.g. me encantan mis hermanos

## Year 7 Spanish ARE 3 Knowledge Organiser



### (1) Pronouns

yo	I
tú	you (singular)
él	he
ella	she
nosotros	we
vosotros	you (plural)
ellos	they (m or m/f)
ellas	they (f only)

### (2) THE RULES : Regular verbs

1. Write down the infinitive (bailar/comer/vivir)
2. Chop off the ending AR/ ER/ IR.
3. Write down what's left (the stem).
4. Add the correct ending. Use the boxes below to find the correct ending

### (3) AR verbs

yo	-o
tu	-as
él/ella	-a
nosotros	-amos
vosotros	-áis
ellos/ellas	-an

### (4) ER verbs

yo	-o
tu	-es
él/ella	-e
nosotros	-emos
vosotros	-éis
ellos/ellas	-en

### (5) IR verbs

yo	-o
tu	-es
él/ella	-e
nosotros	-imos
vosotros	-ís
ellos/ellas	-en

### (6) Time Expressions

Los fines de semana	On the weekend
Los lunes/martes...	On Monday/Tuesday
Después del colegio	After school
Durante el recreo	At break
Durante la semana	During the week
Normalmente	Normally
A veces	Sometimes
Raramente	Rarely
Nunca	never
Todos los días	everyday
Siempre	always

### (7) Irregular verbs

tengo	I have
soy	I am
estoy	I am (location)
voy	I go/am going
hago	I do/make
salgo	I go out
juego	I play
quiero	I want
pienso	I think
prefiero	I prefer

### (8) Regular AR verbs

Andar	to walk
Ayudar	to help
Bailar	to dance
Buscar	to look for
Charlar	to chat
Caminar	to walk
Cantar	to sing
Comprar	to buy
Descargar	to download
Dibujar	to draw
Enseñar	to teach
Escuchar	to listen
Estudiar	to study
Esperar	to wait/hope for
Ganar	to win/earn
Hablar	to speak
Llegar	to arrive
Llevar	to carry/wear
Nadar	to swim
Necesitar	to need
Practicar	to practice
Sacar	to take (photos)
Tocar	to play (instrument)
Trabajar	to work
Usar	to use
Viajar	to travel
Visitar	to visit

### (9) ER verbs

Aprender	to learn
Comer	to eat
Beber	to drink
Comprender	to understand
Responder	to respond
Vender	to sell
Creer	to believe
Leer	to read
Correr	to run
Pretender	to pretend

### (10) IR verbs

Escribir	to write
Recibir	to receive
Describir	to describe
Descubrir	to discover
Abrir	to open
Permitir	to allow
Vivir	to live
Consumir	to consume
Discutir	to discuss
Compartir	to share

### (11) Key Phrases

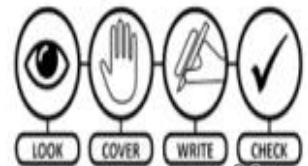
¿Qué haces?	What do you do/are you doing?
¿Qué haces en tu tiempo libre?	What do you do in your free time?
es / no es	It's / It's not
muy	very
bastante	quite
un poco	a (little) bit
¡Está chupado!	It's a piece of cake/easy!
No es mi tema	It's not my thing
No es de mi interés	It's not my thing

## Analysis of Performance (Term 3)






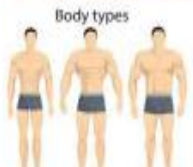
Anatomical Movements		
1	<b>Flexion</b>	Decreasing the angle at the joint.
2	<b>Extension</b>	Increasing the angle at the joint.
3	<b>Adduction</b>	Limb moves <b>towards</b> the mid-line of the <b>body</b> .
4	<b>Abduction</b>	Limb moves <b>away from</b> the mid-line of the <b>body</b> .
5	<b>Rotation</b>	A <b>circular movement</b> around a <b>fixed joint</b> .
6	<b>Circumduction</b>	When the limb moves in a <b>circle</b> .
7	<b>Dorsi Flexion</b>	<b>Bending the foot up</b> towards the shin.
8	<b>Plantar Flexion</b>	<b>Bending the foot downward</b> towards the ground.








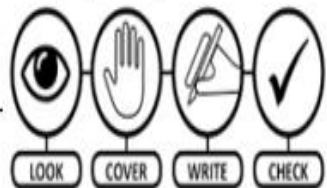
Methods of Performance Analysis													
	Method of analysis	Explanation	Example										
9	<b>Verbal feedback</b>	Spoken feedback used to improve performance levels.											
10	<b>Tally chart</b>	Visual information on the number of items or happenings.	<table border="1"> <thead> <tr> <th>Sport</th> <th>Votes from kids</th> </tr> </thead> <tbody> <tr> <td>Football</td> <td>     </td> </tr> <tr> <td>Soccer</td> <td>     </td> </tr> <tr> <td>Basketball</td> <td>     </td> </tr> <tr> <td>Tennis</td> <td>     </td> </tr> </tbody> </table>	Sport	Votes from kids	Football		Soccer		Basketball		Tennis	
Sport	Votes from kids												
Football													
Soccer													
Basketball													
Tennis													
11	<b>Peer observation</b>	When someone else in the class watches you perform and feeds back to you.											



## Components of Fitness (Term 4)

	Physical Components	Definition	Sporting example
1	<b>Aerobic Endurance</b>	The ability to exercise your cardio respiratory system for a long period of time.	
2	<b>Muscular Endurance</b>	The ability to exercise your muscular system for a long period of time.	
3	<b>Muscular Strength</b>	The maximum force that a muscle or muscle group can produce.	
4	<b>Flexibility</b>	The range of movement around a joint.	
5	<b>Speed</b>	The distance covered over time (metres per second)	
6	<b>Body Composition</b>	The ratio of fat mass to fat free mass in the body.	<div style="text-align: center;"> <p>Body types</p>  </div>

	Skill Components	Definition	Sporting example
7	<b>Balance</b>	The ability to maintain a centre of mass above a base of support.	
8	<b>Coordination</b>	Being able to use two or more body parts at once to complete a motor task efficiently.	
9	<b>Reaction Time</b>	The time taken to respond to a stimulus.	
10	<b>Power (Explosive Strength)</b>	The combination of speed and strength.	
11	<b>Agility</b>	The ability to change direction at speed without losing balance.	



## Resistant Materials

### Year 7 D&T – Gumball Machine Project



Analyse the above Gumball Machines using ACCESS FM.

We use **ACCESS FM** to help us write a **specification** - a list of requirements for a design - and to help us **analyse and describe** an already existing product.

**A** is for **Aesthetics**

**C** is for **Cost**

**C** is for **Customer**

**E** is for **Environment**

**S** is for **Size**

**S** is for **Safety**

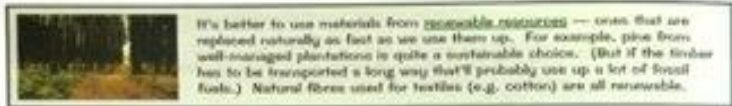
**F** is for **Function**

**M** is for **Material**

### Target Market



A target market is the **market segment** (group of potential customers) which a particular product or service is **marketed** (advertised) to.



Using **reused materials** means that fewer raw resources are needed, and often less energy is used. For example, recycling old food cans takes much less energy than mining and processing new metal.

1 km = 1000 m

1 m = 100 cm

1 cm = 10 mm

### ACCESS FM - Helpsheet



**Aesthetics** means what does the product look like? What is the Colour? Shape? Texture? Pattern? Appearance? Feel? Weight? Style?



**Cost** means how much does the product cost to buy? How much does it cost to buy? Cost to make? How much do the different materials cost? Is it good value?



**Customer** means who will buy or use your product? Who will buy your product? Who will use your product? What is their Age? Gender? What are their likes? Dislikes? Needs? Preferences?



**Environment** means will the product affect the environment? Is the product Recyclable? Reusable? Repairable? Sustainable? Environmentally friendly? Bad for the environment?



**Size** means how big or small is the product? What is the size of the product in millimeters (mm)? Is it the same size as similar products? Is it comfortable to use? Does it fit? Would it be improved if it was bigger or smaller?



**Safety** means how safe is the product when it is used? Will it be safe for the customer to use? Could they hurt themselves? What's the correct and safest way to use the product? What are the risks?



**Function** means how does the product work? What is the product's job and role? What is it meant for? How well does it work? How could it be improved? Why is it used this way?

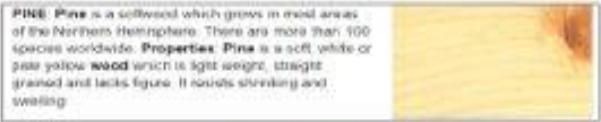
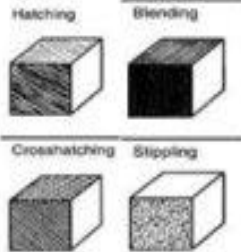


**Material** means what is the product made out of? What materials is the product made from? Why were these materials used? Would a different material be better? How was the product made? What manufacturing techniques were used?

### Testing

Testing a prototype / developed design is a very important part of the design and manufacturing process. Testing and evaluation, simply confirms that the product will work as it is supposed to, or if it needs refinement.

In general, testing a prototype allows the designer and client to assess the viability of a design. Will it be successful as a commercial product? Testing also helps identify potential faults, which in turn allows the designer to make improvements.



### Evaluation

Designers evaluate their finished products or prototypes in order to test whether they work well and if the design can be corrected or improved. Whatever you have designed it is important to evaluate your work constantly during the project. Evaluation can take a variety of forms:

- General discussion with other pupils, staff and others.
- Questionnaires / surveys carried out at any time during the project.
- Your personal views, what you think of existing designs.
- Most important of all - what do you think of your designs, prototypes and finished products?
- Can you think of any other ways of evaluating your work?

Remember to always suggest improvements when evaluating!



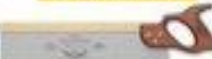
File



Coping Saw



Tri-Square



Tenon Saw



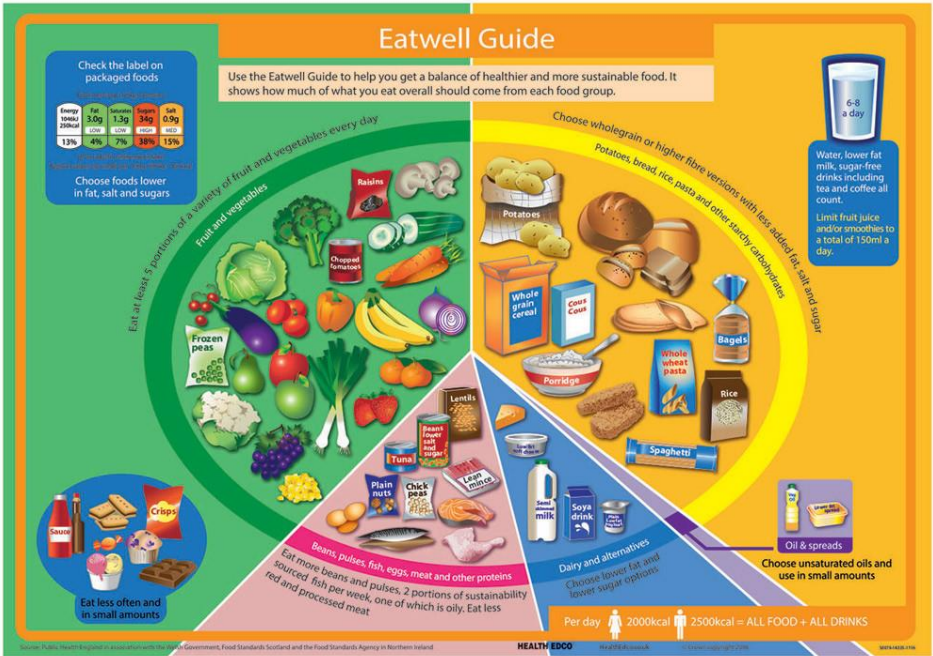
Bench Hook



Pillar Drill



Vertical Sander



### Food Miles

All food makes a journey from where it is grown or produced to your plate.

How far food has travelled is known as its food miles.

We should be aiming for as few miles as possible. Choosing foods with fewer food miles helps reduce pollution and protect our Planet.

We can reduce food miles by eating food that is in season, and buying food that is produced locally.

### Cooking Processes

**Radiation**  
Heat from an oven or grill.

**Denaturation**  
When the protein in cheese unravels (melting).

**Gelatinisation**  
When starch granules swell.

**Mis-en-place**  
A French word to describe preparing ingredients and getting everything ready for cooking.

**Convection**  
The scientific process that occurs when liquids boil in a pan.

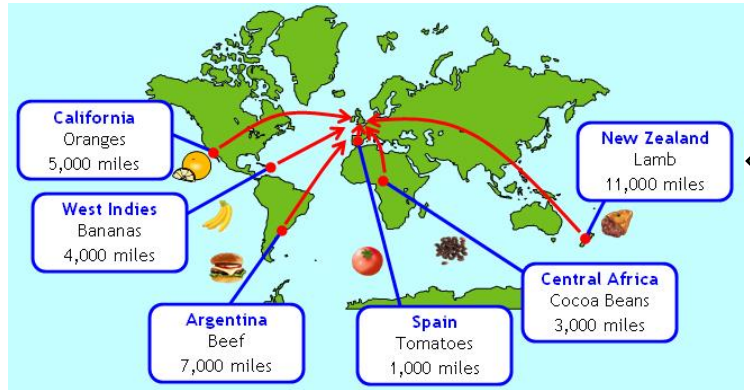
**Stock**  
The juice from cooked meats, fish, and vegetables.

**Enzymic Browning**  
A reaction that occurs in some fruit and vegetables when left to react with air.

**Gluten**  
The protein particles contained in flour.

**Shortening**  
Rubbing flour and fat together to make a crumbly mixture.

**Dextrinisation**  
A chemical process that turns food brown/black when cooking.



## Food Tech

### Health and Safety



Carry knives pointing down.



Wash up with hot water and washing liquid.



Clean surfaces and equipment to kill bacteria.



Wash hands with soap after touching raw meat.



Wipe up spills straight away to avoid slips.

Chopping board colour coding	
Red	Raw meat
Blue	Raw fish
Yellow	Cooked meat
Green	Salad and fruit
Brown	Vegetables
White	Bakery and dairy

### Knife Skills

- Always carry knives pointing downwards
- Always pass knives by the handle
- Never run or fight with knives
- Keep the knife blade away from your fingers when cutting
- Never cut towards yourself
- Never leave a knife in the sink
- Never try and catch a knife if it falls

When using a knife there are TWO techniques we can use to ensure knife safety when cutting ingredients.



Claw grip



Arch grip

### Bacteria

Bacteria are a micro-organisms that multiply in certain conditions.

Where can bacteria be found?

Everywhere!

Are all bacteria bad?

No some are good and essential for normal bodily function.

### How can you reduce the risk of bacteria?

- Storing food separately
- Storing and cooking foods at the correct temperatures

### The 4 C's

- Cleaning - wash your hands properly.
- Cooking - make sure you cook food properly or you could make someone very ill.
- Chilling - keep it chilly silly.
- Cross contamination - keep raw meat and cooked food apart.



## Was life better under the Caliph or the King?



### Key Dates

- 750** The **Abbasid** family took control of the **Muslim Empire** in the east.
- 762** **Baghdad** was established as the capital city of the Abbasid Caliphate.
- 793** **Paper** arrives in Baghdad from China.
- 800** Baghdad is the **largest city in the world**.
- 830** The **House of Wisdom** was established.
- 850** Baghdad has its own **hospital**.
- 1258** Baghdad was destroyed by the **Mongols**.



### Key People

- Ibn Sina**  Doctor and scholar known in English as Avicenna (980-1037). Wrote a huge medical encyclopaedia known as the "Canon of Medicine".
- Al-Razi**  Doctor and scholar known as Rhazes (854-925). Helped identify the difference between smallpox and measles and influenced the hospital in Baghdad.
- Caliph Al-Ma'mun**  Caliph of the 'Abbasid Dynasty ruled 813 to 817 and he founded the House of Wisdom.
- Caliph Al Mansur**  Founder of the Baghdad in 762AD



History – Year 7  
Knowledge Organiser  
7.4

### Key Places

- Baghdad** Established by the Abbasid Caliphs and was the capital of the Islamic World. It became a centre of learning during the Golden Age of Islam.
- House of Wisdom** The Grand Library of Baghdad. Home to academic works gathered from across the known world.
- Golden Gate Palace** The palace was the Caliph's residence and was located in the centre of the round city of Baghdad.
- Grand Mosque** The mosque was next to the Caliph's palace so that when people bowed down to pray they were bowing down to the Caliph.

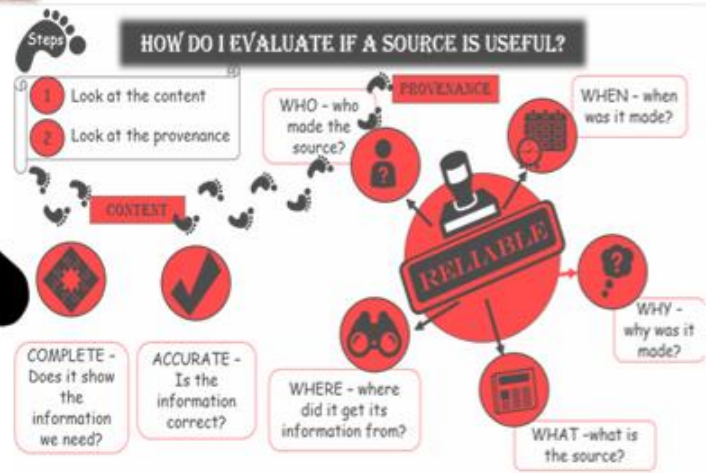


### Key Words

- Abbasid** A member of the Abbas family, the ruling Caliphs of Baghdad.
- Anatomy** The scientific study of an animal or plant, or any of its' parts.
- Arab** Name given to the group of people originating from the Middle East and North Africa
- Astronomy** The scientific study of space and the universe
- Caliph** Spiritual leader of Islam, any of the former Muslim rulers of Baghdad.
- Caliphate** An Islamic state led by a Caliph
- Golden Age of Islam** A period of cultural, economic, and scientific flourishing in the Islamic World, dated from the 8th century to the 13th century.
- Scholar** Someone who has excellent knowledge of a particular subject.



**Inference** - Making an inference is working out some information from a source (an educated guess).





### Key People

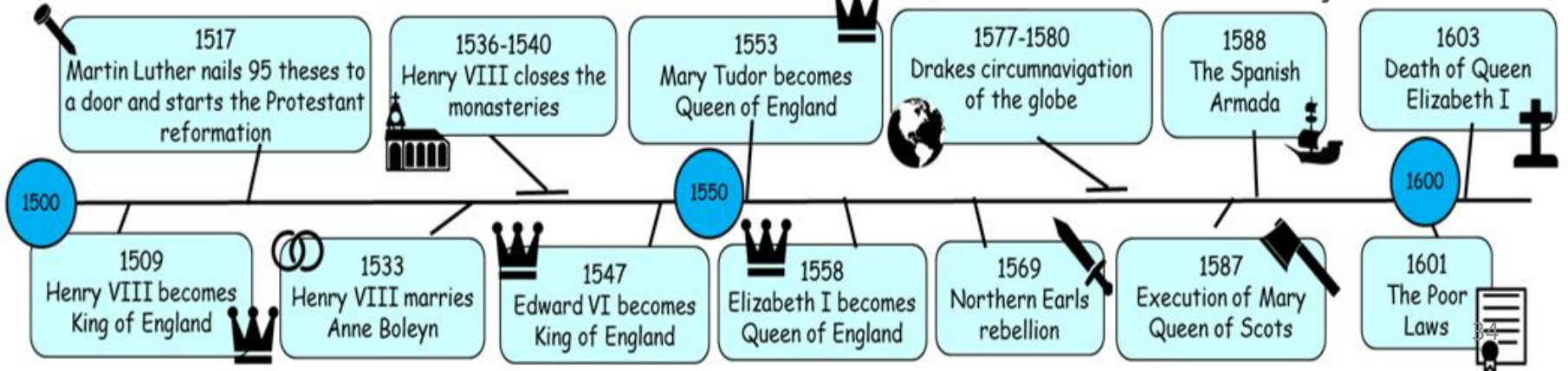
<b>Martin Luther</b>	A German monk that thought that the Catholic Church was corrupt he set up the new Protestant church.
<b>Pope Clement II</b>	The head of the Catholic Church that refused to give Henry VIII a divorce.
<b>Henry VIII</b>	King from 1509-1547. Head of the Church of England.
<b>Thomas Cromwell</b>	Henry VIII put him in charge of getting rid of the monasteries.
<b>Francis Drake</b>	The first Englishman to circumnavigate the globe.
<b>Mary Queen of Scots</b>	Ruler of Scotland 1542-1547 became a focus for Catholic rebellion in England.
<b>Mary Tudor</b>	Daughter of Henry VIII. Queen of England between 1553-1558
<b>Edward VI</b>	Son of Henry VIII. King between 1547-53.
<b>Elizabeth I</b>	Daughter of Elizabeth I. Queen between 1558-1603.
<b>Phillip II</b>	King of Spain married to Mary Tudor.

### History - 7.5 Knowledge Organiser



### Key Words

<b>The reformation</b>	Attempts to reform the Catholic Church and the development of Protestant Churches in Western Europe.
<b>heir</b>	Next in line to the throne.
<b>Roman Catholic</b>	The Christian church of which the Pope, or bishop of Rome, is the supreme head.
<b>Protestant</b>	Someone who follows Christianity using beliefs developed from the Reformation.
<b>Break with Rome</b>	When Henry VIII broke away from the Catholic Church and became head of the Church of England.
<b>Dissolution of the Monasteries</b>	The monasteries that were run by the Catholic Church were closed down.
<b>Puritans</b>	An extreme version of Protestantism
<b>Circumnavigation</b>	To go around the world
<b>The Spanish Armada</b>	A fleet of ships launched to attack England by Spain.
<b>Poor Laws</b>	A series of laws brought in to help the poor in Elizabethan England.



## How do rivers shape the landscape?

### V-shaped valleys



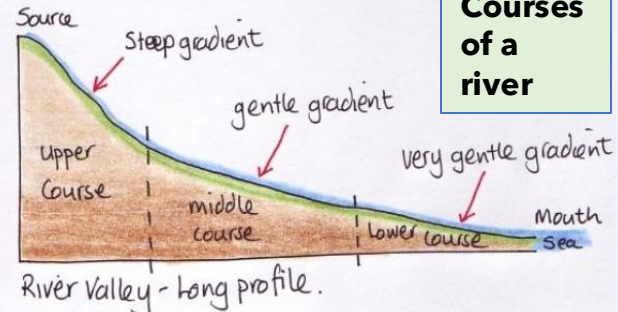
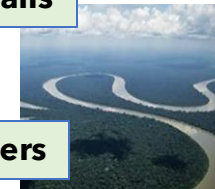
### Waterfalls



### Deltas



### Meanders

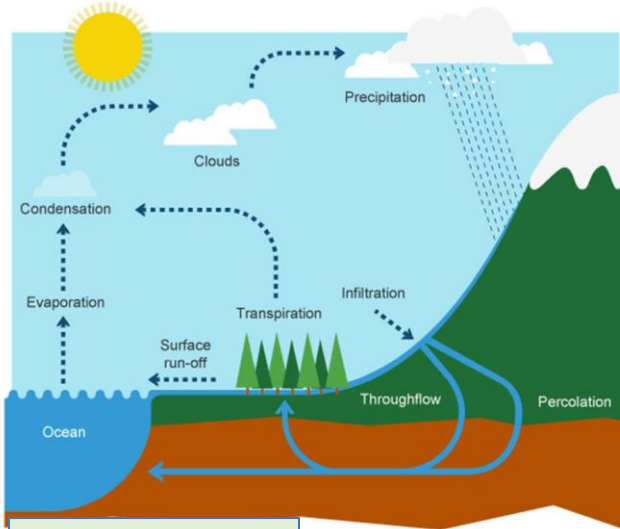
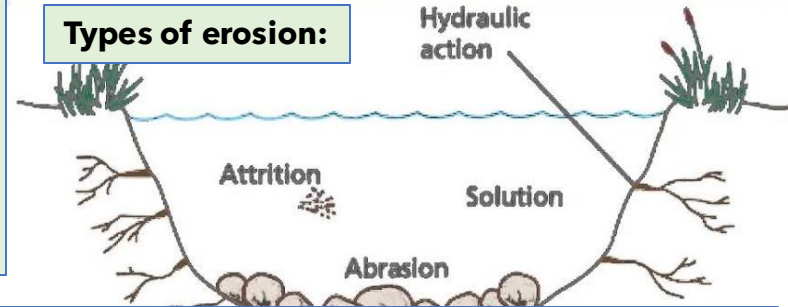


### Courses of a river

#### River Processes:

- **Erosion:** The wearing away of land
- **Transportation:** The movement of eroded land in the river
- **Deposition:** The dropping of eroded material by water

#### Types of erosion:



### The Water Cycle

Keyword	Definition
<b>Evaporation</b>	When sun heats water it changes into water vapour and rises.
<b>Condensation</b>	As air rises it cools and the water vapour forms clouds.
<b>Precipitation</b>	Water droplets that fall to the ground as rain, hail or snow.
<b>Infiltration</b>	Water soaks into the soil.
<b>Transpiration</b>	When moisture is evaporated from plants.
<b>Surface runoff</b>	When water runs off the surface of the land.
<b>Throughflow</b>	When water flows through the soil.

### Flooding in the Somerset Levels

#### Causes

In the winter of 2013/14, the Somerset levels experienced very severe and extensive flooding. Several factors contributed to the flooding which include:

- Heavy rainfall over a short period of time
- High tides
- Dredging (Lack of)

#### Impacts/Effects

Social	Environmental	Economic
Over 600 homes flooded	Ecosystems destroyed	Cost of damage was £10 million
People evacuated from their homes and put into temporary accommodation	Limited food supplies for animals	Many people couldn't go to work as jobs were disrupted and roads closed due to flooding



## Is Russia a vast wilderness?



Keyword	Definition
<b>Eurasia</b>	A term used to describe the combined continental landmass of Europe and Asia
<b>Arctic circle</b>	Line of latitude at 66 degrees north of the equator
<b>Biome</b>	A large community of plants and animal found
<b>Climate</b>	The average weather conditions over a long period of time
<b>Climate graph</b>	A graph showing the temperature and rainfall for a location over a year
<b>Nature reserve</b>	An area of land managed to protect its physical features
<b>Biodiversity</b>	The number of different plant and animal species in an area
<b>Adaptation</b>	How plants and animals have changed to survive in a particular environment
<b>Permafrost</b>	A layer of permanently frozen ground
<b>Population distribution</b>	The number of people on average in a given area (usually 1 square km)
<b>Sparsely populated</b>	Few people live there
<b>Densely populated</b>	Lots of people live there

The biomes of Russia

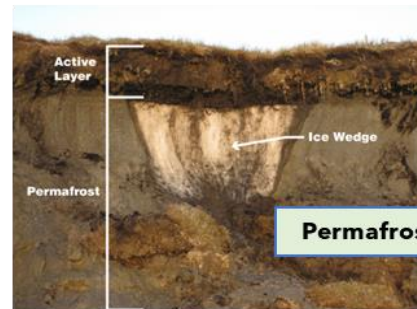
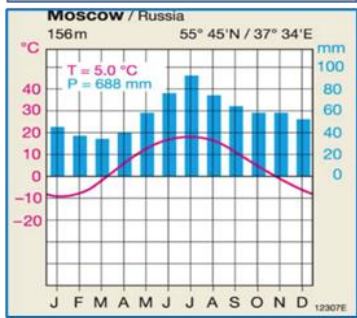


Russia's population density on a map

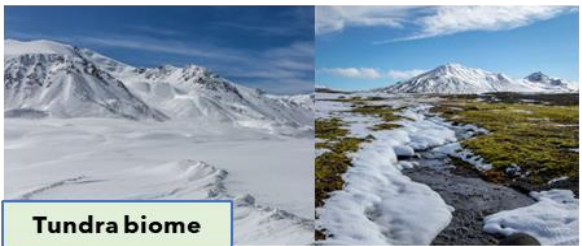
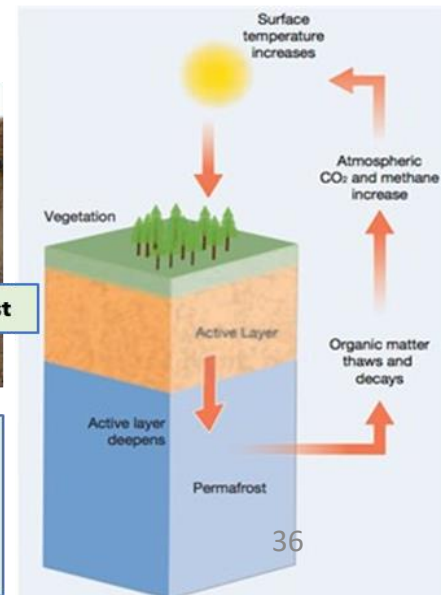


Covering 17 million square kilometres, **Russia is the largest country in the world**. It is 70 times the size of the UK and twice the size of the USA. Russia borders 14 nations and spans 11 different time zones.

Moscow's climate graph



Permafrost



Tundra biome

- Tundra comes from the Finnish 'tunturia', which means barren or treeless land.
- Trees do not grow in the tundra because the ground is permanently frozen 25-100cm down.
- Tundra is a biome where the ground stays frozen for most of the year and there is very little precipitation.
- Tundra environments are found in the Northern hemisphere surrounding the Arctic Circle - where temperatures stay below 0°C most of the year.

## Year 7 Portraiture Knowledge Organiser

### Content: In this project you will

- Develop knowledge- of some different styles of portraiture
- Understand-what inspired artists to create their work and how to write about the work
- Develop skills- drawing, shading, painting, and showing the influence of other artists in your own work and presentation

### Outcome- a Frida Kahlo inspired self-portrait



**Frida Kahlo...**  
 Was born in Mexico and became a painter, following a serious road accident, which left her with life changing injuries. A third of her work was self-portraits and she used them to show her suffering of her injuries and her marriage. She was married to the famous artist Die- go Rivera.

ARTISTS



**Roy Lichtenstein...**  
 Was one of the leading artists of the Pop Art movement. His work was inspired by comic strip art and was humorous in a tongue-in-cheek way. He created the Ben Day dots which can be seen in many of his artworks.

**Keywords:**  
**(Self) Portrait** An artistic representation of a person, in which the face and its expression is the focus  
**Continuous Line** Drawing made from one line where you don't lift your pen or pencil  
**Contour Drawing** An outline  
**Blind contour** Look at the subject and not at your paper whilst drawing  
**Tone** from dark to light  
**Form** a three dimensional shape  
**Sculpture** a 3D piece of art made from any material  
**Proportion** the relation of size between objects  
**Symbolism-** using an object to represent a meaning

**Art Movement:** a period of time when popular art shares similar styles

- Movement:** Consider from the options, what Art movement they belong to.
- Cubism
  - Post impressionism
  - Pop Art
  - Baroque

**Assessment:**  
**(D) Demonstrate a deepening-** knowledge, understanding and skills  
**(O+)On Track- Demonstrate some-** knowledge, understanding and skills  
**(O-)On Track- Demonstrate some-** knowledge, understanding and skills  
**(Y)Yet to be on Track- developing** some-knowledge, understanding and skills  
**(A)Earlier Stage-minimal** knowledge, understanding and skills

**Analysis**  
 All artist research pages should be annotated  
**Artwork-**  
**Artist name**

- Describe the work-what does it look like? Use the formal elements i.e. colour, line etc.
- What techniques/materials were used?
- What is your opinion of the work? How is it relevant to your own idea?

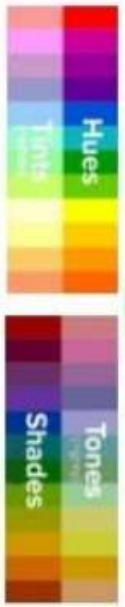
**Sentence starters**  
 I like/dislike the way the artist has used...because  
 I think the colour scheme used is effective because...  
 I think the artist has been inspired by...because

**Evaluation of Your Artwork-**  
 What inspired you to create the piece?  
 What techniques did you use and why?  
 What does it mean to you?  
 How is it relevant to your idea?

**Sentence starters**  
 The technique I have used is...  
 The skill/technique I found most difficult was...because...  
 I think my work is successful because...

# COLOUR

The colour wheel



## Art Movement

### POP ART

Art based on modern popular culture and the mass media, especially as a critical or ironic comment on traditional fine art values.



### Primary colours



Tertiary colours are made by mixing primary and secondary colours

### Complementary colours



## Artists

Alexander Calder



Picasso



## Year 7 Under the Sea Knowledge Organiser

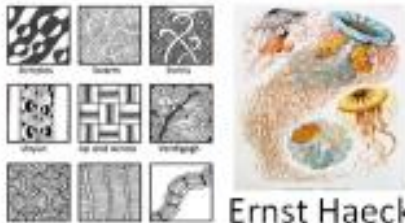
**Content:** In this project you will...

Develop knowledge- of sea creatures

**Understand**-how other artists are inspired to create their work and how to write about the work.

**Develop skills**- drawing, shading, painting, and showing the influence of other artists in your own work and presentation.

**Outcome-** A sea life study



Ernst Haeckel

ARTISTS



### Paul Klee...

Paul Klee created 'Fish Magic' in his later years.

Fish Magic was created on a panel using watercolour and oil. It combines elements of the sea (fish), the earth (flowers), and the galaxy (moon and planets). It's as if Klee was communicating a complex story of the earth, sea and sky on canvas, portraying them in a romantic, surreal and expressionist mood.

### Keywords:

**Collage** - a piece of art created by combining photos, clippings or small objects onto a surface.

**Typography** - is the art of arranging letters and text in a way that makes the copy legible, clear, and visually appealing to the viewer.

**Sketchbook**-a book or pad with blank pages for sketching and is frequently used by artists for drawing or painting as a part of their creative process.

**Line Drawing**- any image that consists of distinct straight or curved lines to represent two-dimensional or three-dimensional objects.

**Render** - Coloring your art, shading it, or adding texture to it to add realism and a 3D quality.

**Observational Drawing**- drawing what you see.

**Value Drawing** - a black and white drawing.

### Assessment:

- (D) Demonstrate a deepening knowledge, understanding and skills
- (0+)On Track- Demonstrate some knowledge, understanding and skills
- (0)On Track- Demonstrate some knowledge, understanding and skills
- (Y) Yet to be on Track- developing some knowledge, understanding and skills
- (A) Earlier Stage- minimal knowledge, understanding and skills

### Analysis

All artist research pages should be annotated

#### Artwork-

##### Artist name

- Describe the work-what does it look like? Use the formal elements i.e. colour, line etc.
- What techniques/materials were used?
- What is your opinion of the work? How is it relevant to your own idea?

##### Sentence starters

I like/dislike the way the artist has used...because  
 I think the colour scheme used is effective because...  
 I think the artist has been inspired by...because

##### Evaluation of Your Artwork-

What inspired you to create the piece?  
 What techniques did you use and why?  
 What does it mean to you?  
 How is it relevant to your idea?

##### Sentence starters

The technique I have used is...  
 The skill/technique I found most difficult was...because...  
 I think my work is successful because...

### Zen Tangle...

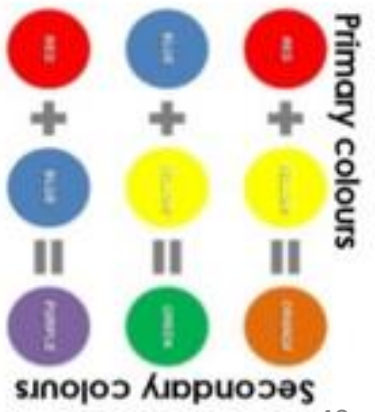
Zentangle patterns are unplanned, abstract, black-and-white art made up of beautiful patterns. According to the trademarked Zentangle Method, true Zentangles are always created on 3.5-inch (8.9 cm) square tiles and are always done in black ink on white paper.

### Scratch Art:

Scratch Art is a graphic technique. It is used to create value drawings. ... Using scratch tools (stylus, scratch brush, or scratch knife) you can create value drawings by scratching off the black ink and revealing the board beneath. This technique is similar to drawing with white pencil over a black paper.

# COLOUR

The colour wheel



Tertiary colours are made by mixing primary and secondary colours









MONOCHROMATIC





# WHA Religion & World Views

	Key concept	Definition
	1. Agape	<b>One type of love.</b> Love for our neighbour, or selfless/unconditional love.
	2. Gospel	<b>Good news:</b> Jesus announces that we can all be at one with God and with each other. There are four books in the Bible recording the life of Jesus: Matthew, Mark, Luke and John.
	3. Messiah	<b>The one who comes to save people.</b> Christ is the Greek word for this.
	4. Miracle	An event that breaks the laws of nature.
	5. Parable	<b>A type of story with a teaching in it.</b> For example, the Good Samaritan teaches us to love our neighbour.
	6. Sin	<b>An action that goes against what God wants for us.</b> Going off course.

## Key info

7	<b>Kingdom of God</b>	<b>Kingdom of God</b> , also called <b>Kingdom Of Heaven</b> , in Christianity, the spiritual realm over which <b>God</b> reigns as king, or the fulfilment on Earth of <b>God's</b> will.
8	<b>Christ</b>	The title given to Jesus, this is also treated as a name.
9	<b>Repentance</b>	The action of showing you are truly sorry and regret something you have done.
10	<b>Mitzvot</b>	Jewish laws (613 of them!)
11	<b>Forgiveness</b>	To overcome a wrong action against you and offer forgiveness.
12	<b>The Fall</b>	When Adam and Eve ate the forbidden fruit from the tree of knowledge in the Garden of Eden, they 'fell away' from God, they were thrown out of the garden and the close relationship humans had with God was destroyed.
13	<b>Heaven</b>	To be in God's presence when we die. Christians believe you can only go to heaven by living a good life/being a good person.
14	<b>Creation</b>	The belief that God created the world and that it was perfect, Adam and Eve lived with God in the Garden of Eden.
15	<b>Ministry</b>	Jesus' mission in the world; what he was here to do

## The Parables

<p><b>16. The Good Samaritan</b></p>	<p>A Jewish man was travelling from Jerusalem to Jericho, when he was attacked by robbers. They took his clothes, beat him and left him for dead. Luckily a priest came by but when he saw the man, he walked by on the other side of the road. Then, a Levite (a holy man) walked by, but also crossed the road to avoid him. Then a Samaritan (who is from the neighbouring village Samira – Jewish people and Samaritans usually hate each other) came by where the man was; <b>he took pity on him. He went to him and bandaged his wounds. Then he put the man on his own donkey, brought him to an inn and took care of him.</b> Jesus was teaching us to <b>'love our neighbour as much as we love ourselves,</b> and that anyone can be your neighbour.</p>
<p><b>17. The Sheep and the Goats</b></p>	<p>All the people in the world will be gathered in front of Jesus, and he will sort the people into two groups just like a shepherd sorts the sheep from the goats. He will put the sheep at his right hand and the goats at his left. Then Jesus will say to the people at his right hand, “You are blessed by my Father. Come into the wonderful kingdom that God has prepared for you because when I was hungry, you gave me food. I was thirsty and you gave me something to drink. I was a stranger and you welcomed me. I was naked and you gave me clothing. I was sick and you took care of me. I was in prison and you visited me.”          “Truly I tell you, whenever you did it to anyone, even unimportant people, you did it to me because they are all members of my family.” Jesus was teaching people that by helping other human beings, you are worshipping and serving God.</p>

## Miracles

<p>18</p>	<p><b>Feeding the 5000</b> (Matthew 14:13-21) One day there was a group of 5000 people who had gathered to listen to Jesus. At dinner, rather than send them home, Jesus gathered food from just one little boy who had brought five small loaves of bread and two fish, not enough for 5000! But Jesus took the food and blessed it, he broke it into pieces. The disciples passed out pieces to the people and there was enough to feed everyone with some leftover.</p>
<p>19</p>	<p><b>Healing a Paralyzed Man</b> (Luke 5:17-26) Once there was a man who could not walk. He wanted to see Jesus so his friends carried him on a mat. The friends lowered their friend through the roof of the house that Jesus was in. When Jesus saw the man, he said, “Friend, stand up! Pick up your mat, you can walk home!” The man got up, picked up his mat and walked home thanking God.</p>
<p>20</p>	<p><b>Walking on Water</b> (Matthew 14:23-33) In the morning, Jesus’ disciples saw him walk towards their boat on the water. The disciples did not know it was Jesus or a ghost, but Jesus said, “Don’t be afraid. It is I.” Peter said, “If it is really you, tell me to come to you on the water.” “Come,” said Jesus. So Peter got out of the boat and started toward Jesus – he was walking on water too!</p>

# WHA Religion & World Views

Mohamed (pbuh) was born in Mecca in 570CE. His father died before he was born. His mother died when he was 6. When he grew up he became a trader. People said he was honest in business.

He married his employer, a rich and independent woman called Khadijah. Mohamed's family believed in one God, but this was unusual at the time.

One night, Mohamed was in a cave praying when he heard the words of Allah, spoken by the angel Jibril (Gabriel). Mohamed (pbuh) had never been taught to read or write, but he told others the exact words that Allah said. These words were written down. This became the Quran.

Mohammed began to preach to the people. He said "stop worshipping all these statues. There is only one God." But the people of Mecca would not listen to him. They tried to kill him, so when he was invited to, he journeyed to a city called Medina, this is called the hijra.

In Medina, Mohammed (pbuh) was welcomed and he had the first mosque built so that people could go there to worship Allah. He became the leader of the new community: The Ummah.

Mohammed (pbuh) died when he was 63. He was buried in Medina and a mosque was later built around his tomb.

## The life of Prophet Mohamed (pbuh)

**The Night of Power**  
Happened in 610 in the cave of Hira  
The Angel Jibril communicates Allah's command to "Read" three times.  
The first Surah's (verses of the Quran are revealed to Muhammad. Muslims regard this as the most important event in history.

**The Night Journey**  
"Happened in about 620"  
The Angel Jibril takes the Prophet from the Ka'ba to Jerusalem on a winged horse (AL-Buraq.) Muhammad leads the other Prophets in prayer.  
Muhammad is taken through the seven levels of heaven to meet Allah  
Allah gives the ummah the gift of compulsory prayer (Salah)

**The Hijra**  
"Happened in about 622"  
Muhammad was invited to Yathrib by neighbouring tribes.  
Muhammad escapes, the people that would kill him, in the dead of night with Abu Bakr.  
Muhammad hid in a cave from the Meccans who followed, trying to kill him.  
Allah saves the Prophet when he commands a spider to spin a web at the cave entrance and a bird to build a nest there.



## What the Prophet taught:

Stop having wars and feuds, and to settle our quarrels through the law.

There is **only one God**. Idols should be destroyed.

People with money should help the poor. "**He is not a Muslim who eats his fill while his brother goes hungry**"

Muhammad said all people are "**equal like teeth on a comb**", whatever their colour or background.

Mohamed's Constitution of Medina taught that people **must not** -

1. Act out of anger.
2. Hate, envy or provoke each other.
3. Spy on each other or betray each other's trust.
4. Drink alcohol or gamble.
5. Cheat each other.
6. Charge interest on money loaned to those in need.
7. Pay bribes to get what is lawfully not yours.
8. Kill unwanted babies either before or after birth.
9. Be cruel to animals.

The constitution of Medina is considered to be the first declaration of human rights

People who live good lives will go to paradise. Those who get rich by making others suffer will go hell.

Allah	One God, who has no equal.
Islam	Peace, through submission to God
Sunnah	A saying, action or a practice attributed towards the Prophet Mohammed (pbuh)
Revelation	This is where God has revealed himself to a person. For example the Night of Power
Ummah	Worldwide family of Muslims
Religious Experience	Something that can only be explained by the existence of God.

### The Qu'ran

Muslims believe it is the final word of Allah (God) and is perfect. The Qu'ran is the host text in Islam. It was given to Mohamad by the Angel Gabriel over 23 years. Muslims believe that Allah has given them a complete guide for how to live their life.

## QURAN and SUNNAH

The Prophet Peace be upon him said: I have left behind two things, you will never go astray as long as you hold fast onto them  
**The Quran and Sunnah**

**The Sunnah**  
A saying, action or a practice attributed towards the Prophet Mohammed (pbuh)

Give charity...

It's Sunnah!

Be silent if you don't like the food

It's Sunnah!

Visit the sick

It's Sunnah

Walk to the masjid with tranquility

It's Sunnah

Sunnah is....

To smile.

**The Hadith**  
A collection of the sayings of the Prophet Mohamed (pbuh)

"Paradise lies at the feet of your mother."



"Wish for your brother what you wish for yourself."



"Those that show the most perfect faith are those who are kindest to their families."























### Script & Character

Knowledge and understanding of the essential skills required for the development of a performance to a quality standard, as laid down by the conventions of a script in practice.

#### Key Words – Physical and Vocal Skills

1	Body Language	How a person used their body to communicate how they are feeling.	 
2	Gait	How narrow or wide a person's stance (legs and shoulders) is to show their level of confidence i.e. the more confident a person is the wider gait they tend to have).	
3	Gesture	Hand or head movement to back up dialogue or to be used instead of dialogue e.g. thumbs up to say that something is good.	
4	Mannerism	Idiosyncrasies and habits that are particular to us. We might fiddle with our hair or shift our weight from one foot to the other. It's important that you're able to remove any habits of your own that might interfere with characterisation.	
5	Energy	The term 'energy' in drama is used to describe how an actor uses movement, gestures, gait and posture to show the type energy their character has.	
6	Body tension	How relaxed or tensed an actor's muscles are.	
7	Posture	How tall a person stands or sits e.g. hunching or standing tall with their head held high.	 
8	Eye contact & focus	The state in which two people are aware of looking into one another's eyes, or where the eyes are focused.	
9	Use of space	The way the actor moves around the performance space.	
10	Status	The importance of a character compared to the other characters on stage.	
11	Facial Expression	How a person uses the muscles in their face to show how they are feeling e.g. frowning to show that they are sad.	
12	Volume	This is how loud or quiet a performer speaks. This can range from a Stage whisper to shouting really loud. The way in which an actor uses volumes helps show the audience what mood the character is in as well as what the situation is.	 
13	Pitch	How high or low.	
14	Pause	A moment of silence or stillness used for effect.	
15	Pace	Speed of delivering lines/dialogue.	 / 
16	Diction	Diction is how clearly you speak.	
17	Tone	This is how an actor speaks to show what mood their character is in e.g. Happy, sad, angry etc.	   

## What makes a great composer?

**Key Words**

Flat  
Sharp  
Chord  
Solo  
Duet  
Trio  
Ensemble  
Middle C  
Adagio  
Moderato  
Allegro

**Musical Elements**

Dynamics (*volume*)  
Rhythm (*duration of notes*)  
Tempo (*speed*)  
Context (*background info*)  
Structure (*sections*)  
Melody (*organisation of pitches*)  
Instrumentation (*instruments & voices*)  
Texture (*layers*)  
Harmony (*chords & key*)

**Reading Music**

# SHARP      ♭ FLAT      ♮ NATURAL

D<sup>b</sup> E<sup>b</sup> G<sup>b</sup> A<sup>b</sup> B<sup>b</sup> C<sup>#</sup> D<sup>#</sup> F<sup>#</sup> G<sup>#</sup> A<sup>#</sup>

C D E F G A B C

F A C E E G B D F  
 A C E G G B D F A

**Note Durations**

Semibreve (4 beats)  
 Minim (2 beats)  
 Crotchet (1 beat)  
 Quaver (½ beat)  
 Semi-Quaver (¼ beat)

**Periods of musical History**

- Baroque Era – 1650-1725
- Classical Era – 1725-1810
- Romantic Era – 1810-1900
- 20th Century Era – 1900 onwards.

**Piano hand position**

**Instrument Families**

Strings (Violin, Viola, Cello, Double Bass)  
 Woodwind (Flute, oboe, clarinet, bassoon)  
 Brass (Trumpet, French Horn, Trombone, Tuba)  
 Percussion (Timpani, Bass drum, Snare drum, triangle, maracas, bells)  
 Harpsichord (keyboard instrument from the Baroque era, before piano)

'Tocatta and Fugue' Johann Sebastian Bach (baroque)

'Eine Kleine Nachtmusik' Wolfgang Amadeus Mozart (classical)

'Nocturne in Eb major Op.9 No.2' Frédéric Chopin (romantic)






'Peter Grimes' Benjamin Britten (20th century)

## Computational Thinking

How do we begin to solve problems using a computer?

1. Decomposition: Thinking of all the things we need and tasks to perform in order to make a jam sandwich.
2. Pattern Recognition: Grouping these things into categories for example; ingredients, equipment and actions.
3. Abstraction: Creating an overview plan of how to make our sandwich. What are the main tasks that need completing?
4. Algorithm Design: Writing instructions for Rob-Bot to follow.
5. Debugging: Check your algorithm for errors and making necessary improvements.

	KEY VOCABULARY	DEFINITION
1	Computational thinking	The steps you take to find the best solution to a complex problem.
2	Decomposition	Breaking a complex problem down into smaller, easier to solve problems
3	Abstraction	Focusing on the important information in a problem and ignoring the irrelevant details
4	Pattern recognition	Finding similarities and patterns in order to solve complex problems more efficiently.
5	Algorithm	A sequence of logical instructions for carrying out a task.
6	Program	Sequences of instructions for a computer written in programming language (e.g. Python).
7	Programming	The process of writing computer software.
8	Sequence	The specific order in which instructions are performed in an algorithm.
9	Selection	Allows for more than one path through an algorithm (IF and ELSE).
10	Iteration	The process of repeating steps. Loops (WHILE and FOR).
11	Flowcharts	Show the flow of an algorithm without lots of detail.

Symbol	Name
	Start/end
	Arrows
	Input/Output
	Process
	Decision

