WINTERSTOKE HUNDRED ACADEMY

Knowledge Organisers

### Term 1 and 2
Year 9

Contents

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
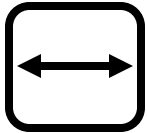
Spacing out your learning over time is far more effective than last-minute cramming. This is based on research into how we forget and how we remember. The speed at which we forget something will depend on many factors such as the difficulty of the material, how meaningful it was to us, how we learned 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
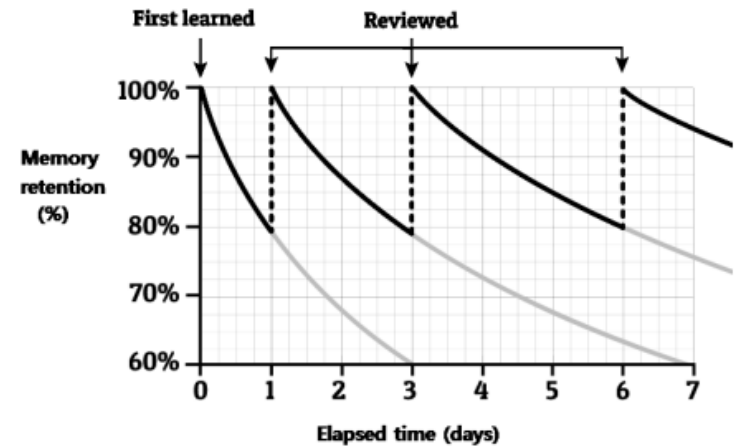
Revision strategies

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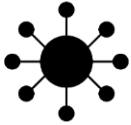
Mapping is a brilliant way of organising and learning information, demonstrated on various pages in this booklet. It helps you break down complex information, memorise it, and see the connections between different ideas.

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.

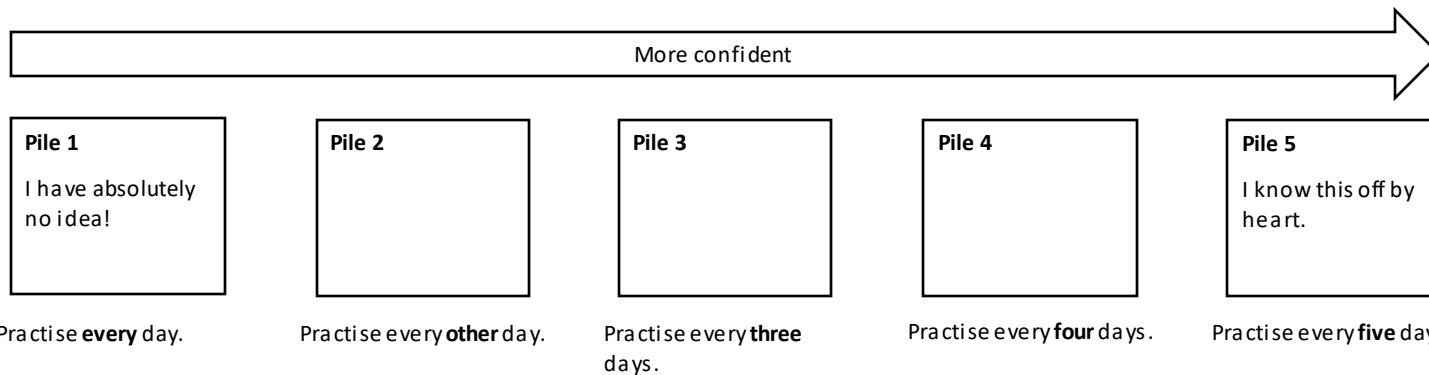| 1861	groynes	osmosis	Where is the pharmacy?
Pasteur published his paper about germ theory.	A low wall on the coastline which slows longshore drift	Net movement of water from a high concentration to low concentration across a partially permeable membrane	Où est la pharmacie?

How to make flashcards:

• You can by 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):

More confident →

Pile 1	Pile 2	Pile 3	Pile 4	Pile 5
I have absolutely no idea!				I know this off by heart.

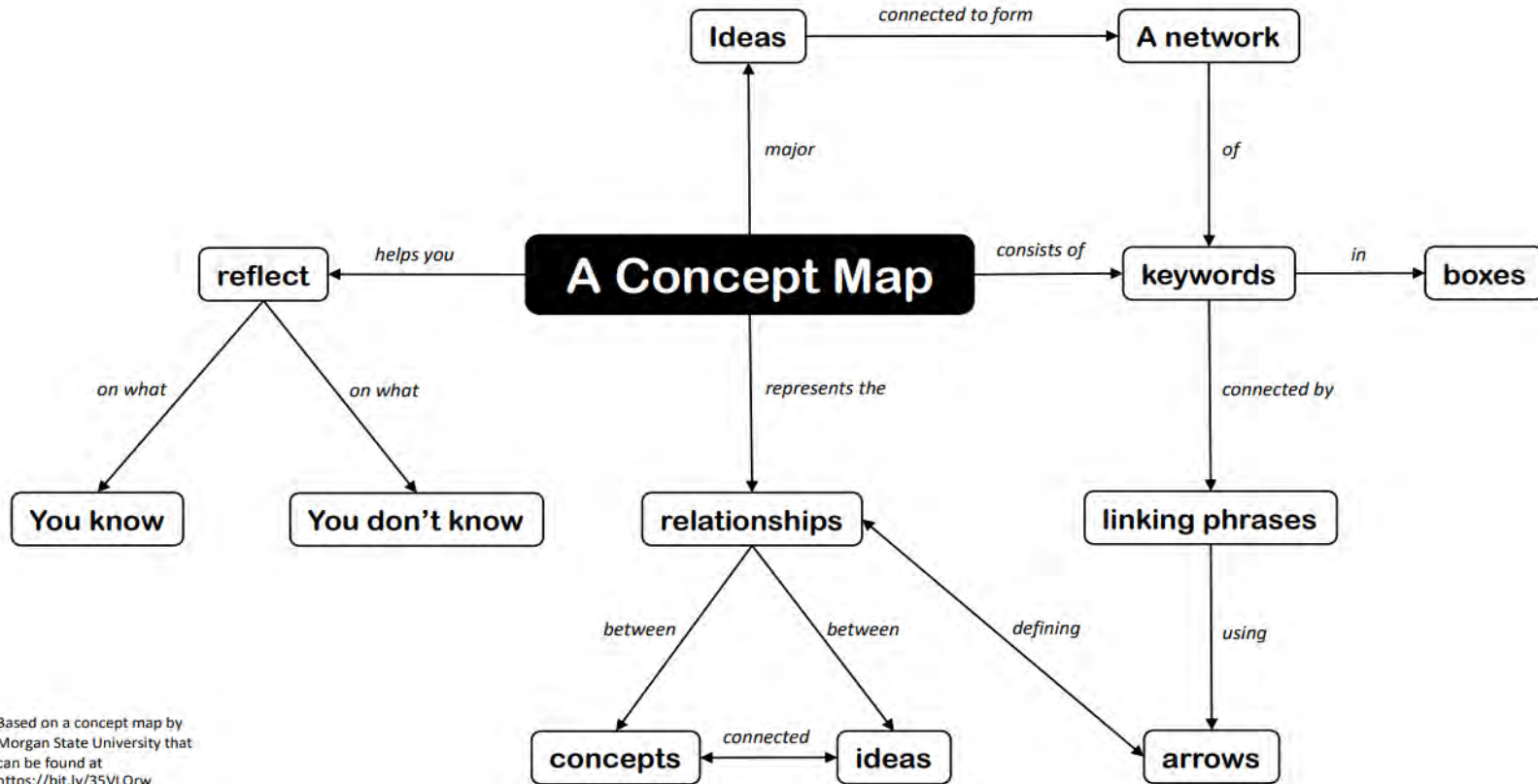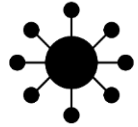Practise **every** day. Practise every **other** day. Practise every **three** days. Practise every **four** days. Practise every **five** days.

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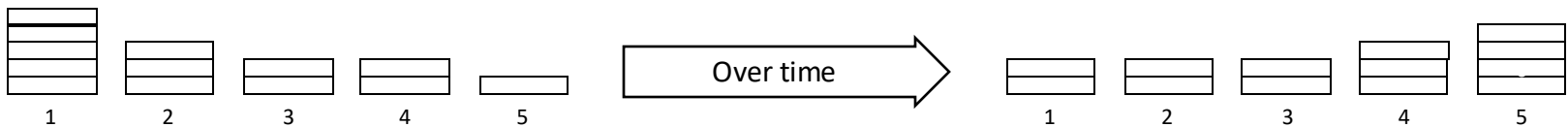
Over time →

1 2 3 4 5   1 2 3 4 5

Useful resources:

Mapping

Based on a concept map by Morgan State University that can be found at https://bit.ly/35VLQrw

Rounding & Estimating

1	Round 4702.368 to the nearest thousand	5000
2	Round 4702.368 to the nearest hundred	4700
3	Round 4702.368 to the nearest ten	4700
4	Round 4702.368 to the nearest whole number	4702
5	Round 4702.368 to 1 decimal place	4702.4
6	Round 4702.368 truncated to the thousands	4000
7	Round 4702.368 to 1 significant figure	1st sig fig is- thousands ⟹ 5000
8	Round 0.056 to 1 significant figure	1st sig fig is hundredths ⟹ 0.06
9	Estimate $\frac{5.3^2 \times 3.89}{0.49}$	Round each number to 1 sig fig $$\frac{5^2 \times 4}{0.5} = \frac{25 \times 4}{0.5} = \frac{100}{0.5} = 200$$ *(dividing by a half doubles the number)*
10	An overestimate is when	The estimated answer is bigger than the actual – resulting from the numbers being rounded up
11	An underestimate is when	The estimated answer is smaller than the actual – resulting from the numbers being rounded down

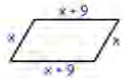|		
1	A number when rounded to the nearest 10 is 60, what is the upper bound?	Nearest 10 ⟹ 10 ÷ 2 = 5 Upper bound means + 5 60 + 5 = 65 is the upper bound
2	A number when rounded to the nearest 100 is 600, what is the lower bound?	Nearest 100 ⟹ 100 ÷ 2 = 50 Lower bound means – 50 600 – 50 = 550 is the lower bound
3	Error interval means	Find the upper and lower bound and write it as an inequality $\leq x <$
4	x is rounded to the nearest 10, giving 160. Show the error interval.	Write the upper and lower bound as an inequality Nearest 10 ⟹ 10 ÷ 2 = 5 + and – 5 $155 \leq x < 165$
5	x is rounded to the nearest 100, giving 300. Show the error interval.	Nearest 100 ⟹ 100 ÷ 2 = 50 + and – 50 $250 \leq x < 350$
6	x is rounded to 1 decimal place, giving 4.7 Show the error interval.	1 dp = 0.1 ⟹ 0.1 ÷ 2 = 0.05 + and – 0.05 $4.65 \leq x < 4.75$

Standard Form

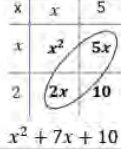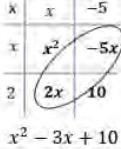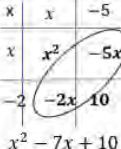|		
1	$10^0 =$	1
2	$10^1 =$	10
3	$10^2 =$	100
4	$10^4 =$	10,000
5	$10^{-2} =$	0.01
6	$10^{-4} =$	0.0001
7	620000 in standard index form	6.2×10^5 (large number, positive power – number of places not zeros)
8	0.00062 in standard index form	6.2×10^{-4} (small number, negative power – if in doubt, count the zeros)
9	43×10^2 is not in standard index form because…	43 is not between 1 and 10
10	6.72×1000 is not in standard index form because…	1000 should be 10^3
11	To compare numbers in standard index form…	First compare the powers of 10. Higher power of 10 means higher value.
12	Which is greater: 4.3×10^7 or 3.82×10^9 ?	3.82×10^9 because $10^9 > 10^7$
13	The first step of $3.2 \times 10^6 + 4.5 \times 10^5$ is … Remember to…	Convert to ordinary numbers then add $3200000 + 450000$ Remember to convert your answer back to standard form
14	The first step of $(4 \times 10^6) \times (3 \times 10^4)$ is … Remember to…	Re-arrange the brackets $(4 \times 3) \times (10^6 \times 10^4)$ – add powers of ten $= 12 \times 10^{10}$ Remember to convert your answer back to standard form 1.2×10^{11}
15	The first step of $(2 \times 10^{10}) \div (8 \times 10^5)$ is … Remember to…	Write as a fraction $\frac{2 \times 10^{10}}{8 \times 10^5}$ -subtract powers of ten 0.25×10^5 Remember to convert to standard form 2.5×10^4

Basic Algebra
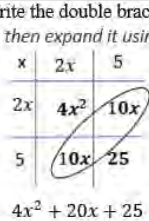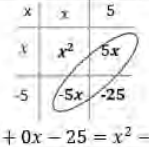
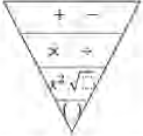|		
1	2a means	2 x a
2	$\frac{a}{10}$ means	$a \div 10$
3	P^2 means	p x p_(p squared)
4	Simplify a + a + a	3a
5	Simplify 5a + 2a	7a
6	You cannot simplify 5a + 2 because	They are not like terms
7	5a + 2 + 3a + 10	Collect the a's and integers 8a + 10
8	Simplify 5a + 2b + 2a	7a + 2b
9	Simplify 5a + 2b – 2a	3a + 2b (the minus belongs to the 2a and 2b is positive)
10	Simplify 5a −2b – 2a	3a – 2b (the minus belongs to the 2a and 2b is negative)
11	Simplify a x a x a	a^3
12	Simplify 5 x a x 3 x b	Multiply numbers first 15ab
13	Simplify 5 $\times a \times 3 \times a$	Multiply numbers first a x a = a^2 15a^2
14	3a + a	4a
15	3a x a	$3a^2$
16	3a x 2b	6ab
17	$Simplify \frac{15a}{3}$	Divide 15 by 3 5a
18	$Simplify \frac{a}{a}$	Anything divided by itself is 1
19	$Simplify \frac{15a}{3a}$	$\frac{15a}{3a}$ $15 \div 3 = 5$
20	Simplify $\frac{a \times a \times b \times b}{a \times a \times b}$	$\frac{a \times a \times a \times b \times b}{a \times a \times b}$ $\frac{a \times b}{1} = ab$
21	Simplify $\frac{a \times a \times b}{a \times a \times a \times b \times b}$	$\frac{a \times a \times b}{a \times a \times a \times b \times b}$ $\frac{1}{a \times b} = \frac{1}{ab}$
22	15ab + 2ab – 3a	Collect ab terms only 17ab – 3a
23	$5x^2 + 3x - 2x^2 + 6x$	Collect x^2 terms separately to x terms $3x^2 + 9x$ ($2x^2$ term is negative, all others positive)

1	An expression is	A collection of letters/numbers e.g. $5n + 10$ $3n + 4m$
2	5 more than y	$y + 5$
3	5 less than y	$y - 5$
4	Y less than 5	$5 - y$
5	5 lots of/multiplied by y	$5y$
6	y divided/shared into 5	$\dfrac{y}{5}$
7	Ben is x years old John is 5 years older Alice is twice John's age	Ben = x John = x + 5 Alice = 2(x + 5) = 2x + 10
8	Write an expression for the sum of Ben, John and Alice's age	$x + x + 5 + 2x + 10 = 4x + 15$
9	Write an expression for the perimeter $x + 9$	$4x + 18$
10	There are x strawberries in a pack and y bananas in a bunch Write an expression for 5 packets and 3 bunches	$5x + 3y$

1	Expand means	Multiply out **all** terms inside by term outside
2	Expand $5(2y + 3)$	Multiply 2y and 3 by 5 $10y + 15$
3	Expand $5(2y - 3)$	Don't miss the negatives $10y - 15$
4	Expand $5(2y - 3 + 4p)$	3 terms in the bracket… 3 multiplications $10y - 15 + 20p$
5	Expand $-5(2y - 3 + 4p)$	Negative term on the outside changes the signs $-10y + 15 - 20p$
6	Expand $y(y + 5)$	$y^2 + 5y$
7	Expand and simplify means	Multiply out Collect like terms
8	Expand and simplify $5(2y + 3) - 10$	Multiply out the bracket only and then -10 $10y + 15 - 10$ Collect like terms $(15 - 10)$ $10y + 5$
9	Expand and simplify $5(2y + 3) + 2(y - 5)$	Multiply out brackets separately $10y + 15 + 2y - 10$ Collect like terms $12y + 5$

		Draw a grid
1	Method for expanding double brackets	
2	Expand and simplify $(x + 5)(x + 2)$	 $x^2 + 7x + 10$
3	Expand and simplify $(x - 5)(x + 2)$	 $x^2 - 3x + 10$
4	Expand and simplify $(x - 5)(x - 2)$	 $x^2 - 7x + 10$
5	$(2x + 5)^2$ means	Write the double bracket $(2x + 5)(2x + 5)$ *then expand it using the grid method* $4x^2 + 20x + 25$
6	Expand and simplify $(x + 5)(x - 5)$	 $x^2 + 0x - 25 = x^2 - 25$

Maths

Changing the subject / Rearranging Formulae

1	Which of these formulae have y as the subject? $y = 3x + 2$ $x = y + 2$ $y = 3xy$ $\frac{x-2}{4} = y$	Where y is isolated on its own on one side $y = 3x + 2$ $\frac{x-2}{4} = y$
2	To change the subject of a formula	Isolate the letter using inverse operations like solving an equation
3	The order in which we choose to eliminate using inverse operations is	$\begin{array}{cc} + & - \\ \times & \div \\ x^2 & \sqrt{} \end{array}$
4	Make x the subject of $y = x + 3$	Subtract 3 from both sides $y - 3 = x$
5	Make x the subject of $y = 3x$	Divide both sides by 3 $\frac{y}{3} = x$
6	Make x the subject of $y = \frac{x}{3}$	Multiply both sides by 3 $3y = x$
7	Make x the subject of $y = 3x + 2$	Subtract two from both sides $y - 2 = 3x$ Divide both sides by 3 $\frac{y-2}{3} = x$
8	Make x the subject of $y = 3(x + 2)$	Divide both sides by 3 $\frac{y}{3} = x + 2$ Subtract two from both sides $\frac{y}{3} - 2 = x$
9	Make x the subject of $y = \frac{x}{3} + 2$	Subtract two from both sides $y - 2 = \frac{x}{3}$ Multiply both sides by 3 $3y - 6 = x$
10	Make x the subject of $y = \frac{x+2}{3}$	Multiply both sides by 3 $3y = x + 2$ Subtract two from both sides $3y - 2 = x$
11	Make x the subject of $y = 10x^2$	Divide both sides by 10 $\frac{y}{10} = x^2$ Square root both sides $\pm\sqrt{\frac{y}{10}} = x$ Don't forget the positive and negative square root

Non-calculator Percentages

1	To find 10%	Divide by 10
2	To find 1%	Divide by 100
3	To find 50%	Half it
4	To find 25%	Half it and half it again (divide by 4)
5	To find 75%	Add together 50% and 25% (or divide by 4 x by 3)
6	How can I find 35%?	Find 30% - Calculate 10%, x by 3 Find 5% - Calculate 10% and half it $35\% = 30\% + 5\%$
7	How could I find 90%?	Find 10% and x by 9 OR find 10% and subtract it from the original number (100%)
8	What about 160%?	Find 10%, x by 6 then add it on to the original number (100%)
9	Increase by 10%	Find 10% and add it on
10	Decrease by 20%	Find 10%, double it then subtract it
11	Write 35 out of 50 as a percentage	Make the denominator 100 $\frac{35}{50} = \frac{70}{100} = 70\%$
12	What about when the denominator is not a factor of 100?	Simplify it Make the denominator out of 100
13	Write 18 out of 30 as a percentage	Simplify $\frac{18}{30}$ to $\frac{6}{10}$ Make the denominator 100 $\frac{6}{10} = \frac{60}{100} = 60\%$

Maths

Maths

Calculator Percentages

1	To calculate a percentage of an amount you…	Divide it by 100 and write as a decimal Multiply by it by the number
2	Calculate 23% of 520	0.23 x 520
3	Calculate 6% of 520	0.06 x 520
4	Calculate 6.5% of 520	0.065 x 520
5	Calculate 18.9% of 520	0.189 x 520
6	To **increase** an amount by a percentage, you…	Add the percentage to 100 Divide by 100 and write as a decimal Multiply it by the number
7	Increase 520 by 23%	100% + 23% = 123% 1.23 x 520
8	Increase 520 by 6%	100% + 6% = 106% 1.06 x 520
9	Increase 520 by 6.5%	100% + 6.5% = 106.5% 1.065 x 520
10	Increase 520 by 18.9%	100% + 18.9% = 118.9% 1.189 x 520
11	To **decrease** an amount by a percentage, you…	Subtract the percentage from 100 Divide by 100 and write as a decimal Multiply by the number
12	Decrease 520 by 23%	100% − 23% = 77% 0.77 x 520
13	Decrease 520 by 6%	100% − 6% = 94% 0.94 x 520
14	Decrease 520 by 6.5%	100% − 6.5% = 93.5% 0.935 x 520
15	Decrease 520 by 18.9%	100% − 18.9% = 81.1% 0.811 x 520

Percentages : Profit / Loss

1	Profit means	Money you earn is more than money you spend
2	Loss means	Money you earn is less than the money you spend
3	To calculate percentage change	$\dfrac{new\ value - original\ value}{original\ value} \times 100$
4	Calculate the percentage profit if I buy a TV for £150 and sell it for £180	$\dfrac{180-150}{150} \times 100 = 0.2 = 20\%\ profit$
5	Calculate the percentage loss if I buy a TV for £150 and sell it for £112.50	$\dfrac{112.50 - 150}{150} \times 100 = -0.25 = 25\%\ loss$

Reverse Percentages

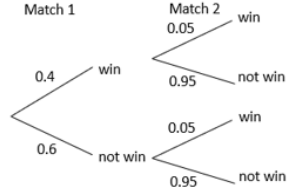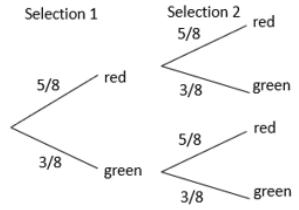| 1	To reverse a percentage change, you…	Find the decimal used to increase/decrease Divide by the decimal
2	A price has increased by 20% to £72. What was the price before the increase?	Decimal used to increase by 20% ⬜1.20 72 ÷ 1.20 = £60
3	In a sale the price has decrease by 20% to £64 (sale price). What was the price before the decrease? (normal price)	Decimal used to decrease by 20% ⬜0.80 64 ÷ 0.80 = £80

Money

1	£3 in pence	300p
2	1700p in pounds	£17.00 or £17
3	Ella wrote £4.5 on the answer line. The mistake is	Money has two decimal places: £4.50
4	Shuaib wrote £7.364 on the answer line. The mistake is	Money has two decimal places: round to £7.36
5	Ella wrote £4.5 on the answer line. The mistake is	Money always has two decimal places: £4.50
6	Shuaib wrote £7.364 on the answer line. What was his mistake?	Money always has two decimal places: round to £7.36
7	How many 20p pieces in £1?	$5 \times 20p = £1$
8	How many 10p pieces in £3?	$30 \times 10p = £3$

Maths

Probability

1	The probability of an impossible event is	0
2	The probability of a certain event is	1 or 100%
3	The probability of an even chance is	½ 0.5 or 50%
4	The probability of rolling a 5 on a dice is	$\frac{1}{6}$
5	The probability of rolling an even number on dice is	$\frac{3}{6} = \frac{1}{2} = 0.5 = 50\%$
6	The probability of rolling a number less than 6 on a dice is	$\frac{5}{6}$
7	P(choosing a red) means	Probability of choosing a red
8	**Never** write probabilities as	ratio
9	Mutually exclusive outcomes…	Cannot happen at the same time
10	The probabilities of mutually exclusive outcomes always sum to	1 or 100%
11	P(rain) = 0.3 What is the p(not rain)	$1 - 0.3 = 0.7$
12	P(snowing) = 0.03 What is the p(not snowing)	$1 - 0.03 = 0.97$
13	p(win)=$\frac{4}{7}$ p(not win) =	$1 - \frac{4}{7} = \frac{3}{7}$
14a	Work out the p(red) Colour: red / blue 0.3 / Green 0.4	$1 - (0.3 + 0.4)$ $1 - 0.7 = 0.3$
14b	If I choose 200 balls, how many would you expect to be green?	0.4 x 200 = 80 green expected

Probability Trees

1a	A team plays two matches The probability of winning match 1 is 0.4 The probability of winning match 2 is 0.05 Draw and label a probability tree	
1b	Two find the probability of two outcomes occurring- you _____ the branches	multiply
2	Two counters are selected and replaced back into the bag each time.	
2a	What calculation would you do for selecting both red?	$\frac{5}{8} \times \frac{5}{8}$
2b	What calculation would you do for selecting one red?	(red, green)$= \frac{5}{8} \times \frac{3}{8} = \frac{15}{64}$ (green, red)$= \frac{3}{8} \times \frac{5}{8} = \frac{15}{64}$ $\frac{15}{64} + \frac{15}{64} = \frac{30}{64}$
2c	What calculation would you do for selection **at least one red**	$1 - $(green, green) (green, green)$= \frac{3}{8} \times \frac{3}{8} = \frac{9}{64}$ $1 - \frac{9}{64} = \frac{64}{64} - \frac{9}{64} = \frac{55}{64}$

English

A View from the Bridge

The characters

Eddie	Eddie's transformation, a loving uncle who turns obsessive and irrational, is the central story of the play. His obsession with respect and masculine reputation doom him. Devoted, protective, loyal ,- jealous, obsessive "I want my respect."	**Beatrice**	Beatrice sticks by her husband even though she knows he is wrong, but that does not mean she won't criticise his actions. Honest, blunt, loving, loyal, jealous? "When am I going to be a wife again Eddie?" "You want something else Eddie, and you can never have her!"
Marco	Marco tells Rodolfo to respect Eddie despite his irrational demands whilst also protecting his little brother, that is until Eddie dooms Marco's children causing his violent reaction. Deferent, a peacemaker, respectful, protective "All the law is not in a book."	**Rodolfo**	Most of what we learn about Rodolfo comes from others, particularly Eddie, who judges him harshly for being different. "No; I will not marry you to live in Italy. I want you to be my wife, and I want to be a citizen."
Alfieri	As the narrator, Alfieri seems to uphold American law, yet when he admits he 'mourns' Eddie at the end he shows the predicament of Italian American immigrants. Calm, rational, eloquent "Now we are quite civilized, quite American. Now we settle for half, and I like it better."	**Catherine**	Catherine loves her uncle and supports him even though it is clear he 'wants something else'. However, this changes when he symbolically rapes her, and she asserts herself. Naive, kind, weak, submissive, assertive "I can tell a block away when he's blue in his mind and just wants to talk to somebody quiet and nice."

The plot

	Act 1: Alfieri addresses the audience, and already foreshadows doom. We are then introduced to a simple but loving home environment.
	There is a hint at latent tensions as Beatrice encourages Catherine's independence and Eddie makes comments on Catherine's appearance and is overprotective.
	Marco and Rodolfo arrive and are gracious guests. Marco wants to save for his children, Rodolfo entertains everyone by singing 'Paper Doll'.
	Eddie becomes jealous of Rodolfo and Catherine spending lots of time together and tells Catherine that Rodolfo is using her for a visa.
	Eddie goes to see Alfieri who says there is no legal problem, and he should forget about the whole issue.
	Eddie and Rodolfo box, protective of Rodolfo, Marco humiliates Eddie in a show of strength.
	Act 2: Catherine and Rodolfo are left alone and have sex. Immediately afterwards Eddie comes back drunk and kisses them both. Marco and Rodolfo move in with Lipari, who already has illegal immigrant relatives staying with him.
	Marco and Rodolfo are arrested and Marco spits in Eddie's face.
	Alfieri pays the cousin's' bail and arranges Catherine and Rodolfo's wedding.
	On the wedding, Marco comes looking for revenge and Eddie is killed with his own knife.

Vocabulary

Suppress – the act of restraining something or someone; forcibly putting an end to something	**Subversive** - seeking or intended to disrupt an established system
Vengeance - punishment inflicted or retribution exacted for an injury or wrong.	**Immigrant** – a person who has moved to another country to live permanently
Xenophobia: Hatred towards people from different countries	**Persecution** - ill-treatment towards a person or group, especially because of race or political or religious beliefs
Effeminate - having characteristics regarded as typical of a woman; unmanly.	**Archetype** - very typical of a certain kind of person or thing
Provocative - causing anger or another strong reaction, especially deliberately.	**Patriarchy**– a system or government where men are in positions of power and women are largely excluded from it

Context – *A View from the Bridge* was written by Arthur Miller and was first staged in 1955.

Italian Americans in New York

Many immigrants came to America with ideas of fulfilling their own American Dream, which declares that freedoms, prosperity, success, and social mobility, can all be achieved through hard work.

Despite this, many Italians who made it to America faced difficult working conditions for low pay and lived in slum communities (such as Red Hook) in their own, small communities.

Omerta

Omerta is a code of silence amongst community members, which involves refusal to give evidence to the police.
It originated in Sicily in the 16th Century, due to a distrust of the ruling parties – this coincided with the rise of the Sicilian Mafia for protection and the enforcement of community law.
At the beginning of the play, Alfieri makes reference to Al Capone and Frankie Yale, who operated in the early part of the twentieth century as leaders of the mafia – who enforced strict codes of Omerta amongst their men.

Conditions in Italy

Italy in the 1950s was a very poor country. The country had suffered huge losses in the Second World War, and the economy was extremely slow to grow subsequent to the end of the war.
With no jobs and very few prospects, many opted to try their luck and illegally immigrate to America.
Dockyard owners made the most of this situation, getting cheap work out of immigrants until they had 'paid their fare.' They could then make their own way in 'rich America.'

The Sicilian Mafia

At the beginning of the play, Alfieri makes reference to Al Capone and Frankie Yale, who operated in the early part of the twentieth century as leaders of the Sicilian Mafia, a crime syndicate synonymous with the arrival of Italian immigrants.
Largely involved in racketeering, the mafia embodied what Alfieri means by the dangers of 'acting wholly' and not 'taking half.'
He suggests that communities have learnt now not to settle their feuds with violence.

Greek Tragedy
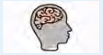
The Greeks devised tragedy as a genre which contained a tragic hero.
A character who begins the play as a hero but has a downward trajectory due to a fatal flaw.

McCarthyism

Accusations of disloyalty, subversion or treason without proper regard for evidence

Themes

Law and honour	There is a frequent conflict between American law and Italian community law throughout the play. The community abides by Sicilian-Italian customs by protecting the illegal immigrants within their homes and seeking revenge where there has been injustice. These values often come into opposition with the American justice system. In the end, Sicilian customs prevail, as Eddie is killed.
Masculinity	The idea of what makes a man, and rather what makes a man 'not right' is a persistent theme throughout the play. To Eddie, masculinity is the most important attribute a man can have, and so he cannot understand why Catherine would show interest in a more effeminate man like Rodolpho. He is humiliated when Marco appears physically stronger.
Love	Confusion between romantic love and familial love
Jealousy	Eddie's jealousy becomes his tragic flaw and leads to his downfall.
Irrationality	Throughout the play, Eddie's uncontrollable inner feelings (and subsequent jealousy) causes him to slowly lose control over his actions. Alfieri suggests that when humans act wholly on their inner emotions (like Eddie) they become irrational, and that instead they must settle for half, in other words restrain some of their inner emotions out of necessity.

Miller's Dramatic Devices

Dramatic Irony	The audience is aware that Eddie has feelings for Catherine that are deeper than uncle/niece, but she seems unaware.
'The Fourth Wall'	Alfieri breaks the fourth wall when he speaks to the audience directly, at the beginning and end of scenes.
Stage Directions	The precise directions detailing Eddie 'laughing mockingly' with 'tears' adds to the power of the kissing scene.
Dramatic Tension	Eddie's mockery of Rodolpho in front of Marco builds dramatic tension leading up to the chair lifting moment.

The Features of Tragedy

Tragic Hero - A main character cursed by fate and in possession of a tragic flaw (Eddie)

Hamartia - The fatal character flaw of the tragic hero (jealousy).

Catharsis - The release of the audience's emotions through empathy with the characters.

Internal Conflict - The struggle the hero engages in with his/her fatal flaw. (Eddie's struggle with his jealousy over Catherine).

Poetry

New Colossus by Emma Lazarus

Emma Lazarus' poem '*The New Colossus*' is a sonnet that has inspired countless Americans. In 1903, a copy of Lazarus' poem was engraved on a bronze plaque on the pedestal of the Statue of Liberty.

Lazarus wrote the poem after the Statue of Liberty Committee asked her to write something about the statue.

Lazarus, a native of New York City, published a collection of poetry when she was still a teenager.

Sadly, Lazarus died in 1887, sixteen years before her most famous poem was engraved on the Statue of Liberty.

Harlem by Langston Hughes

Langston Hughes wrote "Harlem" in 1951 as part of a longer poem.

It explores the lives and consciousness of the black community in Harlem, and the continuous experience of racial injustice within this community. "Harlem" considers the harm that is caused when the dream of racial equality is continuously delayed.

Ultimately, the poem suggests, society will have to reckon with this dream, as the dreamers claim what is rightfully their own.

The Features of Poetry

Sonnet	Traditionally, the sonnet is a fourteen-line poem written in iambic pentameter, employing one of several rhyme schemes. The name is taken from the Italian *sonetto*, which means "a little sound or song."
Structure	Poetic structure is a **poem's form** (meaning the number of lines that it has), its **rhythm** and **rhyme scheme**, and whether it is an example of an existing type of poetry.
Enjambment	(in verse) the <u>continuation</u> of a sentence without a pause beyond the end of a line, <u>couplet</u>, or <u>stanza</u>.

Prose

The Bell Jar by Syliva Plath	<u>Sylvia Plath</u>'s only published novel, *The Bell Jar* (1963), is an exploration of mental illness and the pressure of social expectations on women in 1950s America. *The Bell Jar*'s title, which refers to a type of glass jar often used in science experiments to display or seal off objects and matter from the rest of the world, suggests the sense of oppressiveness and isolation brought about by depression. This atmosphere is also conveyed stylistically through the book's detached tone.
Becoming by Michelle Obama	Becoming (2018) tells the story of Michelle Obama, née Robinson. Born to loving parents in a working-class Chicago neighbourhood, she grew into a strong, independent woman, who just happened to meet and fall in love with a man named Barack Obama.
The Yellow Wallpaper By Charlotte Perkins Gilman	Charlotte Perkins Gilman's classic short story, "The Yellow Wallpaper" tells the story of a young woman's gradual descent into psychosis. "The Yellow Wallpaper" is often cited as an early feminist work that pre-dates a woman's right to vote in the United States.

Science

Types of Variable

Independent – the variable that is **changed**

Dependent – the variable that is **measured**

Control – the variable that stays the **same**

Qualitative – Worded data.

Continuous – Numbered data, can be any value.

Discrete – Numbered data, only certain values.

Tables

Units **only** go in headings

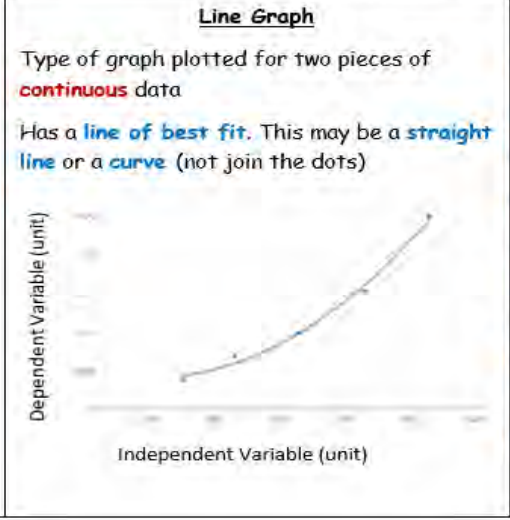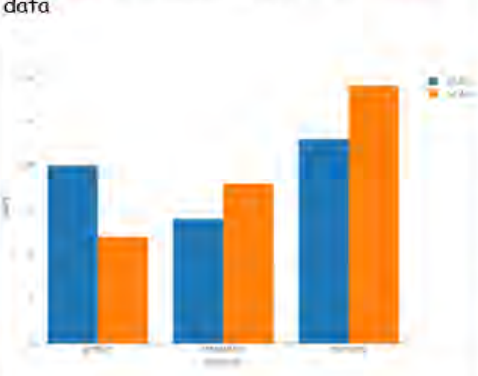| Time (s)	Vol. gas (cm^3)

Types of Error

Systematic – a problem with the method or equipment used. E.g. using a beaker to measure the volume of a liquid instead of a measuring cylinder.

The effect cannot be reduced by taking repeat readings.

Random – whenever something is measured a random error is made. E.g measuring with a ruler.

The effect can be reduced by taking repeat readings.

Zero – caused by a piece of equipment not reading zero when it should. E.g. a balance. Either reset the piece of equipment or deduct the false reading from all measurements.

Type of graph plotted for one qualitative variable and one continuous variable.

data

Line Graph

Type of graph plotted for two pieces of **continuous** data

Has a **line of best fit**. This may be a **straight line** or a **curve** (not join the dots)

Dependent Variable (unit)

Independent Variable (unit)

Key words

Accurate – close to the true value

Anomalous – a result that doesn't fit the pattern

Precise – small amount of spread around the mean

Resolution – the smallest reading on a piece of measuring equipment

Reproducible – if the same results are obtained by different people for the same investigation

Range – the biggest and smallest values of the independent or dependent variable e.g. 0-10 N

Volume – amount of a liquid

Hypothesis – a prediction of what will happen in an experiment.

Science

Tables
Units always go in the column headings.

Independent variable	Dependant variable (test 1)	Dependant variable (test 2)	Dependant variable (test 3)	Dependant variable (mean)

1.

Write the correct answer.
1. The one thing that you change in an experiment is the . . .

2. After you complete your experiment, you look carefully at data. When you do this you ....the data.

3. An educated guess about the results of an experiment is a . . .

Choose from these words:

analyse   prediction   data   dependent variable   independent variable   record

Q4.

A clam farmer has been keeping records concerning the water temperature and the number of clams developing from fertilized eggs. The data is recorded below.

Water Temperature in °C	Number of developing clams
15	75
20	90
25	120
30	140
35	75
40	40
45	15
50	0

A. Make a line graph of the data.
B. What is the dependent variable?
C. What is the independent variable?
D. What is the optimum (best) temperature for clam development?

Science
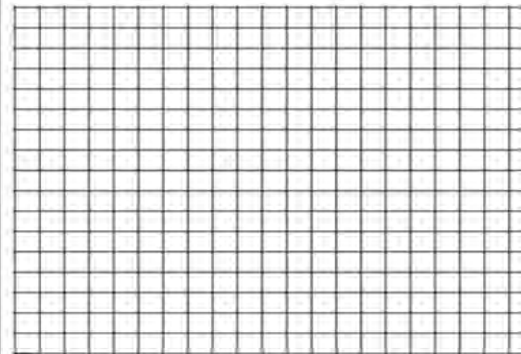
1 Particles

Solids have strong forces of attraction. They are held together very closely in a fixed, regular arrangement. The particles do not have much energy and can only vibrate.
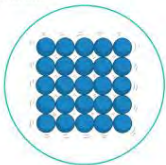

Liquids have weaker forces of attraction. They are close together, but can move past each other. They form irregular arrangements. They have more energy than particles in a solid.

Gases have almost no forces of attraction between the particles. They have the most energy and are free to move in random directions.


2 Pressure

Gas particles can move around freely and will collide with other particles and the walls of the container. This is the pressure of the gas.

If the temperature of the gas increases, then the pressure will also increase. The hotter the temperature, the more kinetic energy the gas particles have. They move faster, colliding with the sides of the container more often.
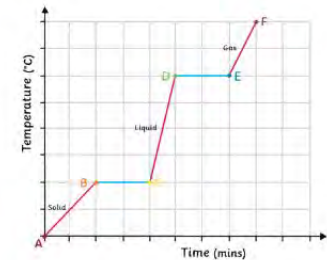

3 changes of state
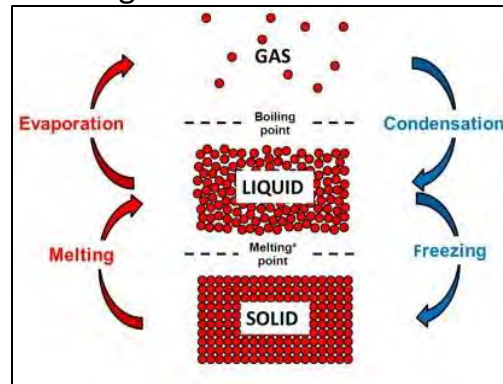
4 heating and cooling curves

Energy is being put in during melting and boiling. This increases the amount of internal energy. The energy is being used to break the bonds, so the temperature does not increase. This is shown by the parts of the graph that are flat.

When a substance is condensing or freezing, the energy put in is used to form the bonds. This releases energy. The internal energy decreases, but the temperature does not go down.
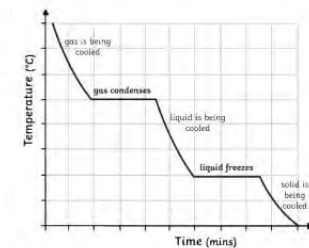
The energy needed to change the state of a substance is called the latent heat.
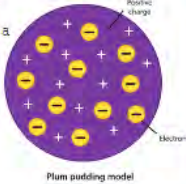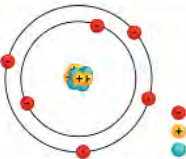
5 Separation techniques

Name	Diagram	Explanation
Chromatography		• Different substances travel different distances up the paper depending on their solubility in the solvent used (it is often water but not always). The more soluble, the further it moves up the paper • Line must be drawn with pencil because pencil will not run. • Artificial colours in foods can be identified using chromatography. Additives do not necessarily have a colour and therefore are identified using chemical analysis.
Distillation		• **Distillation is** when two liquids with *different boiling points* are separated • For example ethanol (alcohol) boils at 78 °C and water boils at 100°C • If you heat a mixture of water and ethanol to 80°C the ethanol will **evaporate** but the water will not. • You then **condense** the ethanol and collect the pure ethanol
Crystallisation		• Crystallisation is when a solvent is evaporated from a solute.

Science

Key Terms	Definitions
Element	A substance that contains only one type of atom
Mixture	A mixture is two or more different atoms which are not chemically bonded – can be separated
Compound	Two or more elements that are chemically bonded
Group	The columns on the Periodic Table
Period	The rows on the Periodic Table
Reactant	What you start with in a chemical reaction
Product	What is made in a chemical reaction

1 Developing the model of the atom

Scientist	Time	Contribution
John Dalton	Start of 19th century	Atoms were first described as solid spheres.
JJ Thomson	1897	Thomson suggested the plum pudding model – the atom is a ball of charge with electrons scattered within it. Plum pudding model
Ernest Rutherford	1909	Alpha Scattering experiment – Rutherford discovered that the mass is concentrated at the centre and the nucleus is charged. Most of the mass is in the nucleus. Most atoms are empty space.
Niels Bohr	Around 1911	Bohr theorised that the electrons were in shells orbiting the nucleus.
James Chadwick	Around 1940	Chadwick discovered neutrons in the nucleus.

2 Atomic number and mass number

Mass number (# protons + # neutrons) **12**

C Symbol of element

Atomic number (# protons) **6**

3 structure of the atom

- All matter is made from atoms. Atoms are very small. The radius of atom is about 1×10^{-10} m (this is also known as 0.1 nanometres).
- The central part of the atom is known as the nucleus. It is only 1×10^{-14} m across, which is **10,000 times smaller** than the total atom.
- An atom is made up of three subatomic particles: **protons**, **electrons** and **neutrons**.
- Protons and neutrons are found in the nucleus
- Electrons are found orbiting the nucleus in shells (also known as *energy levels*).

- The mass and charges of the sub atomic particles is shown below:

	Mass	Charge
Proton	1	+1
Neutron	1	0
Electron	0	-1

- Atoms have **no overall charge** because they have the same number of positive protons as negative electrons.

1 Ions

All atoms want to have a full outer shell of electrons, some atoms will loose electrons, these are metals. Some atoms will want to gain electrons, these **are non metals**. An ion is an atom with a positive or negative charge, these are formed by an atom gaining or losing electrons. For example, Sodium has one electron in it's outer shell, it therefore loses one electron to form a Na^{+1} ion. We represent ions with square brackets around the ion and the charge in the top right corner.

sodium atom,
Na   2,8,1

sodium ion
Na $[2,8]^+$
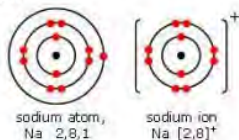
The **group number** indicates how many electrons an atom would have to loose or gain to get a full outer shell of electrons. See below to see what ions different groups form

Group	What happens to the electrons?	Charge on ions
1	Loose 1	+1
2	Loose 2	+2
3	Loose 3	+3
5	Gain 3	-3
6	Gain 2	-2
7	Gain 1	-1

2 Ionic Lattice

Ionic compounds have **regular structures (giant ionic lattices)** in which there are strong **electrostatic forces** of attraction in all directions between oppositely charged ions.

Na ion
Cl ion
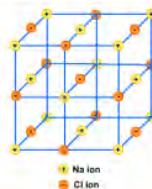
Key Terms	Definitions
Metal	An element which loses electrons to form positive ions
Non Metal	An element which gains electrons to form negative ions
Ion	An atom with a positive or negative charge, due to loss or gain of electrons
Ionic Bond	A bond formed by the electrostatic attraction of oppositely charged ion
Electrostatic	The force between a positive and negative charge.

3 Ionic Bonding

When a metal atom reacts with a non-metal atom electrons in the outer shell of the **metal atom are transferred to the non metal atom**. This means the metal has a positive charge and the non metal has a negative charge. This means there is an **electrostatic attraction** between the two ions, this is what forms an ionic bond. Both atoms will have **a full outer shell** (this is the same as the structure of a Noble gas) see example below of sodium chloride.

sodium atom, Na   chlorine atom, Cl

sodium ion,
Na$^+$ $[2,8]$ $^+$

chloride ion,
Cl$^-$ $[2,8,8]^-$
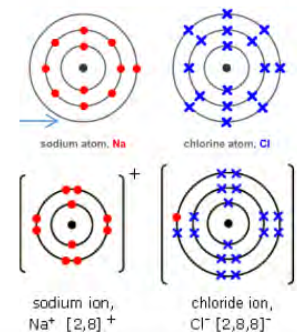
1 Covalent Bonding

Covalent bonding occurs between two non metals, **electrons are shared between the atoms**, so that they have a full outer shell. Covalent bonds are strong and require a lot of energy to break. The simplest example is hydrogen, both hydrogen atoms have **one electron in their outer shell. Therefore both hydrogen atoms share one electron each,** to give them both a full outer shell, we can show this bond on a dot and cross diagram.
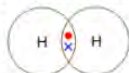
When drawing covalent molecules we use "dot cross diagrams" as we do with ionic compounds, it is important to represent the electrons on one atom with and on the other atom with an X.

The first five examples, **hydrogen, chlorine, water, hydrogen chloride and ammonia (NH_3)** all share one electron per atom in a to make a full outer shell of electrons on each atom.
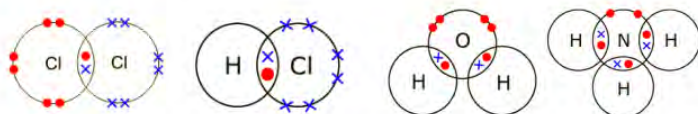
Some atoms need more than one electron to give them a full outer shell, for example oxygen needs 2 electrons to complete its outer shell, oxygen therefore shares two electrons per atom to **make a double bond.** Nitrogen needs three electrons to complete its outer shell, this forms a triple bond between the two **nitrogen atoms, to make a nitrogen molecule**

Key Terms	Definitions
Covalent Bonding	Bonding between 2 atoms where electrons are shared
Molecule	A substance which contains two or more bonded atoms
Lone Pair	A pair of electrons that are not part of the covalent bond

2 The nature of a Covalent Bond

Covalent bonds are strong because there is electrostatic attraction between the electrons in the covalent bond and the positively charged nucleus. This means a lot of energy is required to break a covalent bond.

Y9- Lamp project

Computer Aided Design- 2D design-

Solder iron

Vacuum former

Laser cutter

File

Coping Saw

Tri-Square

Tenon Saw

Bench Hook

Pillar Drill

Vertical Sander

Cheaper because they grow fast and are readily available

Weaker strength properties typically used for DIY.

Greater strength properties suitable for building construction such as barns & roofs.

Softwoods

Hardwoods

More expensive as they take a long time to grow to full size.

Types include Spruce, Pine, Douglas fir.

Fully grown from 30 to 60 years

Softwoods grow in colder climates and are fast growing. The trees have needles instead of leaves and are usually evergreen and grow all year round.

Types of hardwoods include Oak, Ash, Cherry, Mahogony.

Over 100 years to fully mature.

Hardwoods grow in warm climates and are slow growing. They are generally deciduous trees which lose their leaves in autumn.

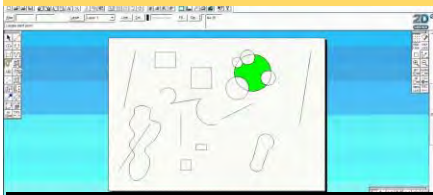|	Hardwood	Softwood	Engineered wood
Origin	Deciduous trees that have leaves and seeds	Conifer trees that have needles and cones	Real timber, waste wood or a combination
Examples	Ash, beech, birch, cherry, oak, maple, and walnut	Cedar, fir, pine, spruce and redwood	Plywood, MDF, chipboard and veneered boards
General Characteristics	Slower growth rate and often higher density	Faster growth rate and often lower density	Large standard sized panels of varying density
Uses	High quality furniture, decorative woodwork, decks, flooring…	Building components, furniture, exterior cladding…	Furniture (shelves and cupboards), walls, counters…
Cost	Typically, higher cost	Typically, lower cost	Lower cost

Advantages of CAD

Increased accuracy of design compared to hand drawings.

Designs can be saved & edited for mistakes/ changes easily.

Can be exported to different formats for manufacture e.g DXF & STL.

Designs can be tested virtually instead of physically modelled.

SEQUENCE DRAWING - VACUUM FORMING

1. A SUITABLE MOULD / FORMER IS CAREFULLY MANUFACTURED

2. THE MOULD IS PLACED IN THE VACUUM FORMER

3. PLASTIC SHEET IS PLACED ABOVE THE MOULD AND CLAMPED SECURELY.

4. THE ELECTRIC HEATER IS TURNED ON TO WARM THE PLASTIC SHEET.

5. THE PLASTIC BECOMES FLEXIBLE WHEN HEATED

6. THE AIR IS PUMPED OUT OF THE AREA BELOW THE PLASTIC AND MOULD.

Polymers (plastics)

Plastics

- During this project you will use plastics. Its important you know the difference between the 2 main groups of plastics; thermosetting plastic & thermoforming plastic.

Thermoforming plastic
Are plastics which don't resist heat and can be easily formed into shapes by heating and remoulding.

Thermoforming Plastic	Properties & Uses
Acrylic	Hard and shiny, resist weather well. Can be used to make baths, motorbike helmet visors and shop display signs.

Thermosetting Plastic	Properties & Uses
Melamine Formadehyde	Strong and scratch proof. Used to laminate chipboard to form kitchen worksurfaces.

Thermosetting plastic
Resist heat and fire. They undergo a chemical change when heated and moulded and permanently become hard and rigid.

HOW THE 5V LED DESK LAMP WORKS
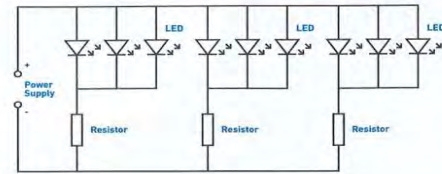
The circuit diagram for the 5V LED Desk Lamp is shown above. It is a very simple circuit. The board contains nine LEDs, these are grouped in to threes, with each group of three sharing a current limit resistor.

LEDs can be damaged if too much current goes through them so a 33 Ω resistor is on each 'branch'. This allows around 20mA to each LED or 60mA per branch.
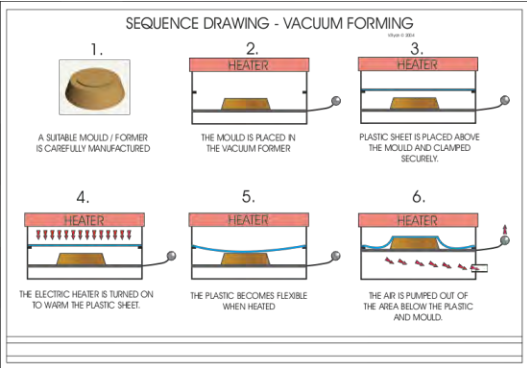
Food Employability Skills – What do you need to get a job in the Food Industry?

Listening   **Speaking**   **Problem Solving**   **Creativity**   **Staying Positive**   **Aiming High**   **Leadership**   **Teamwork**
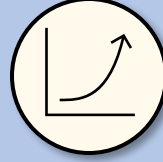
Carbohydrates

Carbohydrates fall into 3 categories:

- **Starchy**
- **Sugars**
- **Fibre (non-starch)**

Starchy Carbs Include

Bread
Pasta
Rice
Cereals
Oats
Grains

Sugary Carbs Include:

Fruits
Soft drinks
Sweets
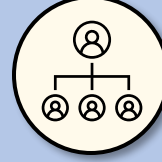Desserts
Sweet potatoes
Some cereals

Fibrous Carbs Include:

Vegetables
Beans
Whole grains

Allergy	What this means	Foods to avoid	Alternatives
Coeliac	Allergy to wheat/gluten. This means that eating gluten triggers an immune reaction which damages the lining of the small intestine.	Foods made with flour cannot be eaten including cakes, biscuits, pasta and bread.	Gluten free flour or flours made from other ingredients like rice, soya etc.
Nut allergy	Can cause anaphylactic shock where the throat swells until a person cannot breathe. They need to be treated with adrenalin.	Any nut-based products - Some people are allergic to some nuts but not others.	You need to check packets to ensure all ingredients are free from traces of nuts.
Fish and seafood	Can cause an increase in severe asthma. Itching of the mouth, skin reactions, and anaphylaxis causing swelling and possible death.	Any sea food, some everyday fish, and fish supplements	Use other meats and avoid any oils that may contain fish.
Egg allergy	Eggs have two allergenic parts, the yolk and the white. They can cause anaphylactic shock, skin reactions and upset stomach.	Any foods containing eggs including; ice cream, cakes, battered foods etc.	Egg replacer.
Lactose intolerance	The body is unable to digest lactose, a type of sugar mainly found in milk and dairy products. Symptoms commonly include skin reactions, Allergic conjunctivitis, nausea, abdominal pain, vomiting, or diarrhoea.	Any dairy products containing lactose including cheeses, creams, butter, milks etc.	Lactose free milks and dairy products.

Being Healthy

Staying healthy isn't just about maintaining the correct weight.

WEIGHT GAIN | STABLE WEIGHT | WEIGHT LOSS

It is therefore possible to be the correct weight and unhealthy.
Why? Because to be healthy we need the right combination of nutrients.

The easiest way to do this is to eat a wide variety of different foods from the Eatwell Guide and to understand which foods supply which nutrients and why we need them.

When choosing dishes and planning healthy foods the cooking method is important as it can turn a healthy food into a less healthy food.

Adding fat to help to cook food adds calories and excessive calories can lead to weight gain. If a saturated fat (butter, lard, ghee, goose fat) is used then this can lead to high cholesterol which is linked to coronary heart disease. If an unsaturated fat (olive oil, rapeseed, vegetable or sunflower oil) is used this is better for our health but still high in calories.

Potatoes are a good choice of food to consider when understanding how the method of cooking can affect health as they can be cooked in so many ways.

For example:
Boiled potatoes = 83 kcals per 100g
Baked potatoes = 87 Kcals per 100g
Chips = 255 Kcals per 100g (more if they are fries)
Crisps = 532 Kcals per 100g

HEALTHIEST COOKING METHODS

STEAMING
-No direct heat
-Retains nutrients
-Adds flavour

GRILLING
-Minimal oil
-Seal in flavour
-Reduce fat content

MICROWAVING
-No oil required
-Quick cooking
-Nutrients intact

STIR-FRYING
-Minimal oil
-Nutrients intact
-Great texture

POACHING
-Enhance nutrients
-Add flavours
-Reuse nutrient stock

NO COOKING
-No oil
-Nutrients not lost
-Taste enhanced in partial cooking

Year 9 – Methods of Training

We know what the components of fitness are, but do we know what methods of training to use to develop them? This knowledge organiser is everything you need to know about the different 'Methods of Training'. First, it's important to know that training can be either aerobic or anaerobic.

Aerobic Training: Is when exercise is steady and in the presence of oxygen. A marathon runner would train aerobically as it improves cardiovascular (CV) fitness.

Anaerobic Training: is when exercise is performed in short, fast bursts without oxygen. A sprinter would train anaerobically as it improves power/speed without oxygen.

Continuous Training

This involves working at a 'continuous' intensity throughout, for a sustained period of time (30mins+) without rest. Continuous training tends to be performed at a lower or moderate intensity and typically involves activities such as running, cycling & swimming, which improves our CV fitness.

Advantages
- No need for equipment/facilities.
- Many health benefits and a good place to start for beginners.

Disadvantages
- Can become tedious as no change of pace.
- Higher chance of injury when running long distances on a hard surface

Sporting Examples
Marathon/Long Distance Runners (e.g., Mo Farah)
Long Distance Cyclists (e.g., Chris Frome – Tour De France)

Circuit Training

In circuit training, different exercises (stations) are set up around a room. Each station has a different activity and works on either aerobic endurance, muscular endurance, strength or all 3. Athletes carry out each station for a set time (e.g., 1min), with a rest period between stations. To avoid fatigue, consecutive stations should work on different muscle groups (e.g., repeated sprints (legs) followed by press-ups (upper body)

Advantages
- Different stations reduce boredom and allow all/specific muscles to be targeted
- Easily adaptable to increase **overload** and **progression**

Disadvantages
- Equipment can be costly and can take time to set up

Sporting Examples
Adaptable to any sport/performer

Fartlek Training

This involves changing the intensity of training according to the athlete's requirements. That may be done by changing terrain (e.g., sand, hills) or by running at a sustained pace to a landmark (e.g., a lamppost). Fartlek training is more sport-specific and can be altered to improve aerobic, anaerobic, & muscular endurance. Like continuous, there is no rest.

Advantages
- No need for equipment/facilities.
- Change of pace allows athletes to control pacing & prevent boredom

Disadvantages
- Easy to avoid high intensity
- Hard to find safe route of terrains

Sporting Examples
Can be adapted to many sports, but traditionally team game sports such as Football, Rugby, and Netball (e.g., Lionel Messi, Owen Farrell, Helen Housby)

Interval Training

Interval training improves both anaerobic and aerobic endurance by varying the intensity and length of work periods. However, this training type involves a rest period. Typical work time can be from 30seconds to around 5 minutes depending on sport and intensity, followed by a rest period.

Advantages
- Can be used to improve both health and fitness
- Easy to apply **overload** and **progression** to the training

Disadvantages
- Can cause injury to the high intensity nature of training

Sporting Examples
100m sprinter (e.g., Usain Bolt) and long jump (e.g., Greg Rutherford)

Weight Training

This form of training can incorporate many different methods (e.g., free weights, resistance machines). It improves muscular strength, muscular endurance, & power. It is important to perform actions correctly & safely to avoid injury, and will typically include both 'reps' (how many times you perform exercise) & 'sets' (how many times you repeat the exercise)

Advantages
- Easy to target specific body parts

Disadvantages
- Can cause injury with poor technique & can be very expensive

Sporting Examples
Sports that requires strength, such as weightlifting & boxing

FITT Principle

For all training methods, it is important to ensure progression & overload occurs. Athletes do this by applying the 'FITT' principle.

F – Frequency   I – Intensity   T – Time   T – Type

Increasing the frequency, intensity, length of time we train for & the type of training we do (e.g., running or swimming) will ensure the training is effective.

Flexibility Training – This form of training is useful for all athletes as it improves flexibility. There are 2 main types of flexibility exercises: static and ballistic stretching. Like weight training, correct technique is crucial to avoid injury, but all performers should have elements of flexibility training within their programme.

Year 9 – Knowledge Organiser - Leadership

Leadership is an important aspect of creating effective groups. Leaders need passion and they need to inspire people. However, being a leader is difficult. So, we must understand what a leader requires to be successful.

Theories of Leadership
There are a few theories which explain how leadership develops:
1. **Trait Leadership** – The idea that leaders are born and not made. Certain individuals are born with the characteristics to be a successful leader.

2. **Behavioural Leadership** – The idea that leaders are made and not born. Individuals can lead and reproduce behaviours across similar situations.

3. **Interactional Leadership** – This idea considers the interaction between the individual and their situation. There are two main types of leaders:
- Relationship Orientated
- Task Orientated

4. **Multidimensional Model of Leadership** – Performance & satisfaction of the group will be high if the leaders required, actual and preferred behaviours all match.

A key skill which leaders must demonstrate to be effective is good communication skills. This is important for group members to understand their roles and responsibilities within the team. There are 3 types of communication:
1. Verbal – Through the use of words and instructions
2. Non-Verbal – Through hand signals and body language
3. Demonstrations – So group members can visually see what is expected

Skills which leaders require: Problem Solving, Time management, Patience, communication skills, making sure they are approachable

Planning Sessions
Effective leaders always plan sessions in advance using a template which includes an aim, which always considers the participants needs. Sports leaders should use this plan as a visual aid during the session to assist with the organisation and running of the session. A key aspect of planning sessions is carrying out a risk assessment which can be defined as 'a process used to identify and eliminate potential hazards that occur during the sports session'. A leader can assess these risks by using a PAR-Q.

It is crucial that at the outset of each session, leaders should include the following 4 elements:
1. Introduce the session
2. Check for injuries
3. Advise participants of emergency procedures
4. Inform participants of aim of the session

Following all sessions, leaders should carry out an evaluation, this will allow strengths and limitations to be identified, and for actions and targets to be put in place for future practice.

Carrying out these components of fitness using the correct methods of training is important to decrease the risk of injury, particularly when using weights.

Differentiation as a Leader
Differentiation is critical for all participants to experience a meaningful and worthwhile sporting experience. Leaders should always make alternative provisions for all group members to be involved in some way, that may be a coaching, officiating, or organisational role. This will also allow learning and development to occur across all learning domains, physical, cognitive, social, and affective. However, leaders must ensure that sessions are always linked to the session aim, selected sport and requirements of each and every participant.

Components of Fitness Reteach
Components of Fitness
Agility: How quickly you can change direction under control Coordination: The ability to use two or more body parts together Speed: Combination of reaction and movement time, moving as quick as possible
Power: The ability to perform strength based movements quickly
Reaction Time: The time it takes for an individual to react to a stimulus
Strength: The ability to exert force on an object
Cardiovascular Endurance: The ability of the heart and lungs to supply oxygen to the working muscles
Muscular Endurance: When your muscles can keep exerting a force for a long period of time
Flexibility: The range of motion of the joints and the ability of the joints to move freely.

WHA Spanish

9.1 Technology and Media Spanish

3 time frames
constructions
Infinitives
justifications

Negative

Opinions and

Comparatives – to express more or less than

… es más…adjective…que - is more…adjective…than

… es menos …adjective ….que - is less…adjective… than

… es tan…adjective….como – is as…adjective…as

For example:

*Es **más** grande **que** su hermano. (He is taller (more tall) than his brother.))*

*Esta casa es **menos** grande **que** nuestra casa. (This house is smaller (less big) than our house.))*

*Este perro es **tan** grande **como** mi gato. (This dog is as big as my cat).*

Make a Spanish comparison from good to better or from bad to worse:

Like in English the words for bad and good are irregular. Good > better (bueno > **mejor**) and bad>worse (malo > **peor**).

For example:

Esta pizza es **mejor que** la otra. (This pizza is better than that other one.)

La gripe es **peor que** un resfriado. (Flu is worse than a cold)

*Notice that the adjective always agrees with the first noun

Superlatives – to express the biggest, the most interesting etc…

… est el/la/los/las más + adjective – is the most + adjective

….est el/la/los/las menos + adjective - is the least + adjective

For example:

***La más** inteligente de la clase (the most intelligent in the class)*

***El menos** grande de la familia (the shortest (least tall) in the family*

Adjectives describe nouns e.g. a blue phone

In Spanish, adjectives normally go after the words they are describing e.g. un móvil azul (a blue mobile phone) and they have to agree with the noun they are describing.

In Spanish, adjectives must agree with the noun (or pronoun) they describe in gender and in number. This means that if the noun an adjective describes is feminine, the adjective must be feminine e.g. una televisión negr**a** (a black television). If that same noun is also plural, the adjective will be feminine AND plural as well e.g. las televisiónes negras (black televisions).

Time phrases and connectives   **Comparatives and superlatives**

Opinion phrases

En mi opinión	In my opinion
Pienso que	I think that
Creo que	I believe that
Diría que	I would say that
Personalmente	Personally
A mi juicio	In my opinion
Considero que	I consider that
Desde mi punto de vista	From my point of view
Lo / Las encuentro	I find it / them

Connectives

y	and
pero	but
porque	because
sin embargo	however
además	furthermore
por ejemplo	for example
luego	then
finalmente	finally
no obstante	nevertheless

Time phrases

Hoy	Today	
Normalmente	Normally	
De vez en cuando	From time to time	
A veces	Sometimes	
El fin de semana	On the weekend	
(Dos) veces por semana	(Twice) a week	
A menudo	Often	
Siempre	Always	
Ayer	Yesterday	
Anteayer	The day before yesterday	
La semana pasada	Last week	
El fin de semana pasado	Last weekend	
El mes/año pasado	Last month/year	
Anoche	Last night	
Hace (dos días/años)	(Two days/years) ago	
Mañana	Tomorrow	
En el futuro	In the future	
El fin de semana próximo	Next weekend	
La semana próxima	Next week	
El año próximo	Next year	

Spanish

TECHNOLOGY VERBS

borrar	to delete, erase
cargar	to load
chatear	to chat online
colgar fotos	to post photos
comunicarse	to communicate
contestar	to answer
crear	to create
dar	to give
descargar	to download
enviar	to send
funcionar	to work, to function
guardar	to save
hablar	to speak, to talk
mandar	to send
navegar la red	to surf the internet
poder	to be able to
recibir	to receive
sacar fotos	to take photos
transmitir	to stream
usar	to use
utilizar	to use

TV GENRES

las comedias	comedies
los concursos	game shows
los dibujos animados	cartoons
los documentales	documentaries
las noticias	the news
los programas de deporte	sports programmes
las series policiacas	crime series
las telenovelas	soap operas

TECHNOLOGY NOUNS

el archivo	file
el correo basura	spam, junk mail
el correo electrónico	email
el disco duro	hard drive
el juego	game
el mensaje de texto	text message
el móvil	mobile/smartphone
el ordenador	computer
el ordenador portátil	laptop
el videojuego	video game
la canción	song
la pantalla	screen
la red	internet
la red social	social network
la revista (digital)	(digital) magazine
la sala de chat	chat room
la tableta	tablet
la tecnología	technology

FILM GENRES

las películas de acción	action films
las películas de amor	romantic films
las películas de ciencia ficción	sci-fi films
las películas de drama	dramatic films
las películas de suspense	suspense films
las películas de terror	horror films

TECHNOLOGY ADJECTIVES

aburrido/a	boring
antiguo/a	old
animado/a	exciting
confuso/a	confusing
corto/a	short
de moda	fashionable
despacio/a	slow
entretenido/a	entertaining
escalofriante	scary
estimulante	stimulating
informativo/a	informative
interesante	interesting
inútil	useless
largo/a	long
lento/a	slow
peligroso/a	dangerous
práctico/a	practical
rápido/a	fast
ridículo/a	ridiculous
roto/a	broken
útil	useful

THE PERFECT TENSE

HABER

he (I have)
has (you have)
ha (he/she have)
hemos (we have)
habéis (you have)
han (they have)

+ INFINITIVE

COMUNICAR → -ADO   Hemos comunicado

TENER
ELEGIR → -IDO   He tenido   Han elegido

3 time frames
Infinitives
Time phrases
comparing

opinions
justifications
describing and

Verbs and the present tense in Spanish

The infinitive

When you look up a verb in the dictionary, you find its original, unchanged form which is called the *__infinitive__* (comer, beber, jugar, visitar, vivir, ir etc.). The infinitive ends in **–ar**, **-er** or **–ir.**

Forming the present tense in Spanish

Take off the last 2 letters of the infinitive (**–ar**, **-er** or **–ir)** and add the following endings depending on the pronoun:

*Important! There are some key irregulars to learn which don't follow this pattern – ir (as shown here), ser, tener and hacer are really important!

Verbs and the near future tense in Spanish

You can talk about the future by using the **near future** tense.

Use part of the verb IR + a + the infinitive to say what you are **going** to do.

Este tarde **voy a jugar** al tenis. *This evening I am going to play tennis.*

Mañana Paul **va a hacer** un pastel. *Tomorrow Paul is going to make a cake.*

Verbs and the past tense in Spanish

The **preterite** is the past tense used in Spanish to describe a completed action at a specific time in the past (e.g. ayer (yesterday), el año pasado (last year). For regular we take off –ar, -er – ir and add the below endings :

	-AR	-ER / -IR
I	é	í
You (sg)	aste	iste
He/she/it	ó	ió
We	amos	imos
You (pl)	asteis	isteis
They	aron	ieron

Examples:

Tomar = to take
To form " I took"

Hablar = to speak
To form "she spoke"

TOMAR > tom > tomé

HABLAR > habl > habló

Spanish

3 time frames   opinions
Infinitives
                        justifications
Time phrases

1.Expressing FUTURE intentions :
Tengo la intención de + infinitive (I plan to/ I intend to ...)
Me gustaría + infinitive (I would like to...)

2.Using infinitives after me gusta/no me gusta/odiar/preferir :
You can also use an infinitive after opinion verbs such as aimer, odiar and preferir. They are usually translated with a **gerund** (a verb ending with -ing) in English:
Me gusta _vivir_ à Newcastle - I like living in Newcastle.
Prefieres _jugar_ al fútbol o al tenis? - Do you prefer playing football or tennis?
Odio _beber_ café porque es asqueroso – She hates drinking coffee because it's disgusting.

3.Opinions
Me gusta(n) - I like
Me gusta(n) **mucho** - I like **a lot**
No me gusta(n) **mucho** - I don't like **much**
Prefiero – I prefer
Odio - I hate
No suporto - I can't stand

4.Justification
Porque - because
Por lo tanto – therefore/so
Por consiguiente- consequently

5.Comparisons
Más.....que –more...than
Menos...que - less...than
Tan...como – as...as
6.Superlative
El/la más – the most
El/la menos – the least
El/la major – the best
El/la peor – the worse

7.Time phrases

Normalmente - normally **pasado -** last weekend	**Luego** – next	**El fin de semana**
Usualmente - usually	**Raramente** - rarely	**El mes pasado -** last month
Generalmente - generally **pasado**- last summer	**El fin de semana que viene**– next weekend	**El verano**
De vez en cuando/a veces – sometimes during lockdown	**La semana que viene**- next week	**Durante la cuarentena-**

Spanish

ACTIVITY VERBS

ir	To go
jugar	To play
comer	To eat
visitar	To visit
hacer	To do
bailar	To dance
beber	To drink
ver	To watch
escuchar	To listen
leer	To read
comprar	To buy
terminar	To finish
escribir	To write
dormir	To sleep
nadar	To swim
quedar	To stay
viajar	To travel
cantar	To sing
mandar SMS	To text
contactar	To contact
llamar	To call
cocinar	To cook
ayudar	To help
trabajar	To work
relajarse	To relax
descansar	To rest

INTENSIFIERS

muy	very	extremamente	extremely
tan	so	demasiado	too
bastante	quite	realmente	really
un poco	a bit	nada	not at all

HEALTHY LIVING VERBS

acostarse	To go to bed
apetecer	To fancy (feel like)
conseguir (un trabajo)	To get a job
Correr	To run
Drogarse	To take drugs
Emborracharse	To get drunk
Encontrarse bien/mal	To feel well/unwell
Estar a dieta	To be on a diet
Estar en forma	To be in shape
Mantenerse en forma	To stay in shape
Evitar	To avoid
Fumar	To smoke
Intentar (+ infinitive)	To try (to do something)
Levantarse	To get up
Preocuparse	To worry
Sentirse	To feel
Tener dolor	To have pain
Tener sueño	To feel sleepy
Superar	To overcome

GENTE / PEOPLE

GENTE	PEOPLE
con	with
mis amigos	my friends
mi hermano	my brother
mi hermana	my sister
mis padres	my parents
mi familia	mi family
solo/a	alone

SITIOS / PLACES

SITIOS	PLACES
En casa	At home
En la casa de mi amigo	At my friend's house
En mi dormitorio	In my bedroom
En el salón	In the living room
En el jardín	In the garden
En mi barrio	In my neighbourhood
En inglaterra	In England
En el extranjero	Abroad
En el pueblo	In town
En el campo	In the countryside
En las montañas	In the mountains
En la costa	At the coast

ADJECTIVES

relajante	relaxing
agradable	pleasant
serio/a	serious
deportivo/a	sporty
enriquecedor/a	enriching
divertido/a	fun
emocionante	exciting
rápido/a	quick
molesto/a	annoying
rápido/a	quick
aburrido/a	boring
fácil	easy
difícil	difficult
interesante	interesting
bueno/a para la salud	healthy
malo/a para la salud	unhealthy

WHA French

9.1 Technology and Media French

3 time frames   Negative constructions
Infinitives   Opinions and justifications
Time phrases and connectives Comparatives and superlatives

Comparatives – to express more or less than

… c'est plus…adjective…que - is more…adjective…than

… c'est moins …adjective ….que - is less…adjective… than

… c'est aussi…adjective….que – is as…adjective…as

For example:

*Il est **plus** grand **que** son frère. (He is taller (more tall) than his brother.))*

*Cette maison est **moins** grande **que** notre maison. (This house is smaller (less big) than our house.))*

*Ce chien est **aussi** grand **que** mon chat. (This dog is as big as my cat).*

Make a French comparison from good to better or from bad to worse:

Like in English the words for bad and good are irregular. Good > better (bon > **mieux**) and bad>worse (mauvais > **pire**).

For example:

Cette pizza est **mieux que** l'autre. (This pizza is better than that other one.)

La grippe est **pire qu'**un rhume. (Flu is worse than a cold)

*Notice that the adjective always agrees with the first noun

Superlatives – to express the biggest, the most interesting etc…

… c'est le/la/les plus + adjective – is the most + adjective

….c'est le/la/les moins + adjective - is the least + adjective

For example:

***La plus** intelligente de la classe (the most intelligent in the class)*

***Le moins** grand de la famille (the shortest (least tall) in the family)*

Adjectives describe nouns e.g. a **blue** phone.

In French, adjectives normally go after the words they are describing e.g. un portable bleu (a blue mobile phone) and they have to agree with the noun they are describing.

In French, adjectives must agree with the noun (or pronoun) they describe in gender and in number. This means that if the noun an adjective describes is feminine, the adjective must be feminine e.g. une télévision noir**e** (a black television). If that same noun is also plural, the adjective will be feminine AND plural as well e.g. les télévisions noir**es** (black televisions).

Opinion phrases

À mon avis	In my opinion
Je pense que	I think that
Je crois que	I believe that
Je dirais que	I would say that
Personellement	Personally
Je considère que	I consider that
De mon point de vue	From my point of view
Je le/les trouve	I find it / them

Connectives

et	and
mais	but
parce que/car	because
çependant	however
en plus	furthermore
par exemple	for example
ensuite	then
finalement	finally
néanmoins	nevertheless

Time phrases

Aujourd'hui	Today
Normalement	Normally
Quelquefois	Sometimes
De temps en temps	From time to time
Le weekend	On the weekend
(Deux) fois par semaine	(Twice) a week
Souvent	Often
Toujours	Always
Hier	Yesterday
Avant-hier	The day before yesterday
La semaine dernière	Last week
Le weekend dernier	Last weekend
Le mois dernier	Last month
L'année dernière	Last year
Hier soir	Last night
Il y a (deux jours/ans)	(Two days/years) ago
Demain	Tomorrow
À l'avenir	In the future
Le weekend prochain	Next weekend
La semaine prochaine	Next week
L'année prochaine	Next year

WHA French

TECHNOLOGY VERBS

supprimer	to delete, erase
charger	to load
tchatter	to chat online
poster des photos	to post photos
communiquer	to communicate
répondre	to answer
créer	to create
donner	to give
télécharger	to download
envoyer	to send
functionner	to work, to function
enregistrer	to save
parler	to speak, to talk
surfer sur Internet	to surf the internet
pouvoir	to be able to
recevoir	to receive
prendre des photos	to take photos
regarder en streaming	to stream
partager	to share
utiliser	to use

TECHNOLOGY NOUNS

Un dossier	file
Un courrier indésirable	spam, junk mail
Un courrier électronique	email
Un disc dur	hard drive
Un jeu	game
Un texto/un SMS	text message
Un téléphone portable	mobile/smartphone
Un ordinateur	computer
Un ordinateur portable	laptop
Des jeux-vidéo	video games
Une chanson	song
Un écran	screen
Internet	internet
Un réseau social	social network
Une magazine (digitale)	(digital) magazine
Un salon de discussion	chat room
Une tablette	tablet
La technologie	technology

TECHNOLOGY ADJECTIVES

ennuyeux/se	boring
vieux/vieille	old
animé(e)	exciting
confus	confusing
court(e)	short
à la mode	fashionable
lent(e)	slow
divertissant(e)	entertaining
effrayant(e)	scary
estimulant(e)	stimulating
informatif/ve	informative
interéssant(e)	interesting
inutile	useless
long(ue)	long
dangereux/se	dangerous
pratique	practical
rapide	fast
ridicule	ridiculous
cassé(e)	broken
utile	useful

TV GENRES

les comédies	comedies
les dessins animés	cartoons
les jeux télévisés	game shows
les documentaires	documentaries
les infos	the news
les émissions de sport	sports programmes
les séries policières	police shows
les feuilletons	soap operas
Les émissions de musique	music programmes
La télé-réalité	reality TV
La série policière	police series
La météo	weather
La publicité	advert

FILM GENRES

Les films d'action	action films
Les films d'amour	romantic films
Les films de science fiction	sci-fi films
Les films dramatique	dramatic films
Les films à suspense	Suspense/thriller films
Les films de guerre	War films
Les films d'horreur	horror films

9.2 Leisure and healthy living French

3 time frames
Infinitives
Time phrases
comparing

opinions
justifications
describing and

Verbs and the present tense in French

The infinitive

When you look up a verb in the dictionary, you find its original, unchanged form which is called the **_infinitive_** (manger, boire, jouer, visiter, habiter, aller etc.). The infinitive ends in **–re**, **-er** or **–ir.**

Forming the present tense in French

Take off the last 2 letters of the infinitive (**–re**, **-er** or **–ir)** and add the following endings depending on the pronoun:

*Important! There are some key irregulars to learn which don't follow this pattern – aller (as shown here), être, avoir and faire are really important!

Verbs and the near future tense in French

You can talk about the future by using the **near future** tense.

Use part of the verb ALLER + a + the infinitive to say what you are **going** to do.

Ce soir je vais jouer au tenis. *This evening I am going to play tennis.*

Demain Paul va a faire un gateau. *Tomorrow Paul is going to make a cake.*

Verbs and the past tense in French

AVOIR or ÊTRE in present tense ➕ **past participle of** the verb

J'ai .... parlé
Je suis .... allé(e)

AVOIR (present)	**ÊTRE** (present)
J'ai	Je suis
Tu as	Tu es
Il /elle a	Il /elle est
Nous avons	Nous sommes
Vous avez	Vous êtes
Ils /elles ont	Ils /elles sont

-ER ➡ É (parlé)
-IR ➡ I (fini)
-RE ➡ U (vendu)

être ➡ été
avoir ➡ eu
faire ➡ fait
pouvoir ➡ pu
vouloir ➡ voulu

9.2 Leisure and healthy living French

3 time frames   opinions
Infinitives

justifications

Time phrases

1.Expressing FUTURE intentions :
J'ai l'intention de + infinitive (I plan to/ I intend to ...)
Je voudrais + infinitive (I would like to...)

2.Using infinitives after j'aime/je m'aime pas/je déteste/je préfère :
You can also use an infinitive after opinion verbs such as aimer, détester and préférer. They are usually translated with a **gerund** (a verb ending with -ing) in English:
J'aime _habiter_ à Newcastle - I like living in Newcastle.
Tu préfères _jouer_ au foot ou au tennis? - Do you prefer playing football or tennis?
Je déteste _boire_ du café parce que c'est dégoûtant – She hates drinking coffee because it's disgusting.

3.Opinions
J'aime - I like
J'aime beaucoup- I like **a lot**
Je n'aime pas beaucoup- I don't like **much**
Je préfère – I prefer
Je déteste - I hate
Je ne peux pas supporter - I can't stand

4.Justification
Parce que - because
Ainsi– therefore/so
Par conséquent - consequently

5.Comparisons
Plus…..que –more…than
Moins…que - less…than
Aussi…que – as …as
6.Superlative
Le/la plus – the most
Le/la moins – the least
Le/la mieux – the best
Le/la pire – the worse

7.Time phrases

Normalement - normally	**Ensuite –** next	**Le weekend dernier -** last weekend
D'habitude - usually	**Rarement** - rarely	**Le mois**
dernier - last month		
Géneralement - generally	**Le weekend prochain–** next weekend	**L'été dernière -** last summer
Quelquefois – sometimes	**La semaine prochaine -** next week	**Pendant le confinement -**
during lockdown		

French

Les activités / Activities

Les activités	Activities
aller	To go
jouer	To play
manger	To eat
visiter	To visit
faire	To do
danser	To dance
boire	To drink
regarder	To watch
écouter	To listen
lire	To read
acheter	To buy
finir	To finish
voir	To see
écrire	To write
dormir	To sleep
nager	To swim
rencontre	To meet
voyager	To travel
chanter	To sing
envoyer des SMS	To text
contacter	To contact
téléphoner	To call
cuisiner	To cook
télécharger	to download
travailler	To work
aider	To help
méditer	To meditate
se rélaxer	To relax
se détendre	To rest

Les endroits / Places

Les endroits	Places
Chez moi	At home
Chez mon ami	At my friend's house
Chez mon père	At my dad's
Chez ma mère	At my mum's
Chez mes grand-parents	At my grand-parents'
Dans ma chambre	In my room
Dans le salon	In the living room
Dans le jardin	In the garden
Dans ma zone	In my neighbourhood
En Angleterre	In England
À l'étranger	Abroad
En ville	In town
À la campagne	In the countryside
À la montagne	In the mountains
Au bord de la mer	By the seaside

Adjectifs / Adjectives

Adjectifs	Adjectives
Aimable	Kind
Agréable	Pleasant
Content(e)	Happy
Bavard(e)	Chatty
Beau/belle	Beautiful
Amusant(e)	Fun
Migon(ne)	Cute
Joli(e)	Pretty
Propre	Clean
Parfait	Perfect
Rapide	Fast
Riche	Rich
Sage	Wise
Timide	Shy
Travailleur/se	Hard-working
Triste	Sad
Ennuyeux/se	Boring
Embêtant(e)	Annoying
Serieux/se	Serious
Facile	Easy
Difficile	Difficult
Stricte	Strict
Moche	Ugly
Bruyant(e)	Noisy
Impoli(e)	Rude
Horrible	Horrible/Awful
Paresseux/se	Lazy
Sportif/ve	Sporty
Enrichissant/e	Enriching
Intéressant(e)	Interesting
Vieux/vieille	Old
Relaxant	Relaxing

Healthy living key verbs

Healthy living key verbs	
Se coucher	to go to bed
Avoir envie de	to fancy, to feel like
Courir	to run
Se droguer	to take drugs
Se soûler	to get drunk
Se sentir bien/mal	to feel well/ill
Être au régime	to be on a diet
Être en forme	to be fit
Éviter	to avoid
Fumer	to smoke
Essayer de (+ infinitive)	to try to
Se lever	to get up
Rester en forme	to keep fit
S'inquiéter	to worry
Goûter	to try, to taste,
Se sentir	to feel
Vaincre	to overcome
Avoir mal	to have a pain (in)
Être fatigué	to be tired

History

Countdown to war

What were the causes of WW1?

Alliances

Europe's six major powers were split into two alliances:

The Triple Entente – Britain, France and Russia.
The Triple Alliance - Germany, Austria-Hungary, and Italy.

In addition, Great Britain has promised to support Belgian neutrality and Russia has

Key Dates

1879	Dual Alliance between Germany and Austria-Hungary signed.
1882	**Triple Alliance** formed when Italy joined the Dual Alliance.
1904	Entente Cordiale signed between Britain and France.
1905	Germany creates the **Schlieffen Plan** to avoid facing a war on two fronts.
1906	Britain launces HMS Dreadnought, starting the **Naval Arms Race.**
1907	Russia joins the alliance with Britain and France, becoming the **Triple Entente.**

MAIN Causes of WW1

M: Militarism: A country wanting to have a strong army and navy.
A: Alliances: A group of countries that promise to protect and support each other.
I: Imperialism: A act of growing an empire. This brought conflict with other countries keen to expand their empires.
N: Nationalism: The belief that your country is stronger and better than others.

Key Terms

Long term cause	Factors or causes which happen a long time before an event takes place.
Short term cause	Factors or causes which happen just before an event takes place. Usually a catalyst.
The Triple Alliance	The Triple Alliance was the treaty by which Germany, Austria-Hungary and Italy agreed to support each other militarily in the event of an attack against any of them.
The Triple Entente	The Triple Entente was a diplomatic and military agreement between France, Great Britain, and Russia, formed in part as a response to the formation of the Triple Alliance.
Black Hand Gang	Serbian Nationalist group aimed to unite all Serbian people in a Greater Serbia.
Naval arms race	The race between Germany and Great Britain between from 1906 to 1914 following Britain launched the first dreadnought a ship that meant all others were redundant before its awesome fire power.
Schlieffen plan	The German idea to avoid a war on two It would quickly defeat France. It as the Russian's would be slow to mobilise. The plan did not work.

Key People

Franz Ferdinand	Heir to the throne of Austro-Hungarian Empire. Assassinated by Gavrilo Princip.
Gavrillo Princip	A Bosnian Serb from a peasant family, who succeeded to kill Franz Ferdinand, the trigger event for World War One.
Kaiser Wilhelm II	The Kaiser was the official head (Emperor) of Germany before and during World War 1.

WHA History

What were the causes of WW1?

Militarism

Germany
Germany concerned about fighting a war against Russia and France. The Army Bill (1912 and 1913) increased the German army by 20% to 800,000 men in 1914.

Schlieffen Plan, focused on defeating France first. It relied on defeating them quickly.

Passed a new Naval Law in 1906 started building SMS Rheinland battleship.

Britain
Feared Germany because they had a very small army (about 100,000) but protected herself with the Royal Navy. Built more dreadnoughts.

By 1914 Britain had 32 Battleships, Germany had 19.

France
France had hated Germany after the Franco – Prussian War. Increased her army from 715,000 to 910,000 between 1900 and 1914, in 1913 military service increased 2-3 years.

Russia
Russia was humiliated by Japan in a short war in 1905 and by Germany in the Bosnian crisis of 1908. As a result, in 1913 Russia increased the size of her land army to 1.3 million by 1914, 500,000 were added in 1913.

Imperialism

Great Britain
Largest empire in the world.
Merchant ships sailed to the colonies and the Royal Navy kept the sea routes open.
Any challenge to the navy put the empire at risk.

France
Second largest empire in the world.
France was keen to keep colonies
Lost Alsace & Lorraine to Germany in 1871,
Wanted to preserve international reputation.

Russia
No overseas empire.
Wanted to expand into:
Manchuria to have ports that didn't freeze in the winter,
the Balkans so that its navy would have access into the Mediterranean Sea.

Austria-Hungary
Was a large empire in central Europe, containing people of many different nationalities, some of whom wanted independence.

Germany
Wanted to become a strong power.
Weltpolitik after 1871 Germany gained overseas land e.g. South West Africa, East Africa, Togo and Papua New Guinea.
By 1914, had the 3rd largest empire.
New colonies needed a strong navy.

Nationalism

The Balkans were part of the Ottoman Empire. Turkey was losing control over the Balkan states. They demanded independence and local wars broke out. Austro-Hungary was afraid that the different people, particularly the Serbs, would also demand independence.

The Balkan Wars (1912-1913)
The Balkan states fought Turkey and then each other, this led to an increase in nationalism in the area.
In 1912, Bulgaria, Greece, Montenegro and Serbia joined together to form the Balkan League.
Serbia grew in size and strength as a result of the wars. There was a rise in Serbian nationalism.

In 1908, Austria annexed Bosnia and Herzegovina which contained thousands of Serbs, making them part of their empire. In 1911, a group of Serbian army officers formed the Black Hand. They planted bombs, blew up bridges, cut telephone wires and murdered officials. Austria-Hungary suspected the government of Serbia were behind the Black Hand.

Franco Prussia War (1870)
Germany a new country. Bismark and King Wilhem of Prussia wanted Germany to be unified together. Bismark edited a telegram which caused France to declare war on Germany, this unified the southern German states behind Prussia.

France was humiliated and lost Alsace & Loraine and had to pay Germany. It's army was shown as weak.

Germany confirmed its position in Europe and now had to invest in an army and navy to maintain its status.

History

Year 9
Who do we remember in WW1?

Timeline

1914 — Battle of the Marne Sept 1914

1915 — Battle of Gallipolli Feb 1915 – Jan 1916

1916 — Battle of Jutland May – June 1916

Battle of the Somme July – Nov 1916

Battle of Verdun Feb – Dec 1916

Battle of Brusilov June – Sept 1916

1917 — 3rd Battle of Ypes/Passchendale July – Nov 1917

German Spring Offensive Mar – Jul 1918

Battle of Amiens August 1918

1918 — Battle of Migiddo Sept 1918

Trench Warfare

Food

Most soldiers in trenches hated the food. Most of what they ate was 'bully beef' (canned corned beef), bread and biscuits. By 1916 there was very little flour left so bread was made with dried ground turnips. They also ate soup made with pieces of horse meat and even rat meat.

Duties

Duties included fixing the trenches and patrolling no-mans land. They also had to bury bodies.

Shell Shock

By 1914, army doctors noticed patients suffering from "shell-shock". It was thought it was caused by the noise and effects of the bombs. Many men were called cowards they were traumatised by what they saw.

Feet

Trench foot was caused by cold, wet and dirty conditions in the trenches. Men had to stand for hours in mud and water without being able to take off wet socks or boots.

Rats

Rats in the trenches were a big problem and grew huge. They ran across soldiers when they slept and stole food. There were sometimes as big cats.

Key Terms

Term	Definition
conscientious objector	Someone who has beliefs that stop them from joining up.
Coward	A person who lack in courage
Deserter	Someone who runs away from the army.
The Western Front	The area in Western Europe where the soldiers fought.
Conscription	Making it compulsory for men to fight in a war.
Recruitment	Encouraging men to join the war.
Pals Battalions	Groups of men from the same community who enlisted together.
Memorials	A statue or structure to remember a person or event.
Shell shock	A form of mental illness brough on by the horrors of warfare.
Artillery	Large guns

A diagram of a trench

Women

Women took on a variety of jobs on the Western Front. The three main organisations were:
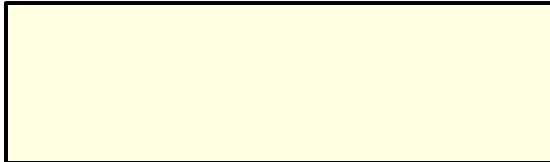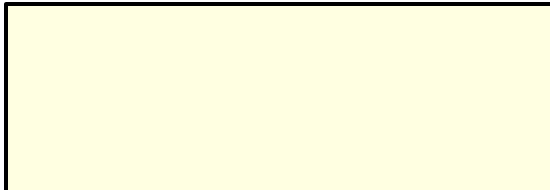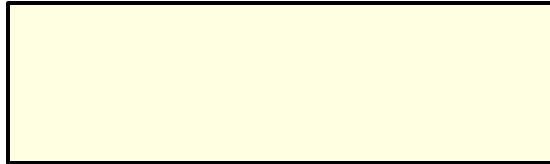
This was significant because it helped to treat men so that they could continue to fight.

Recruitment

Many recruitment posters were created to encourage Britain's to enlist in World War One. From 1916 conscription was introduced which made fighting compulsory for men between 18- 40 unless they were except.

At the time of World War One (1914-1918), Britain had a large empire of countries and territories which it controlled.

During WWI, the British called upon over 3 million soldiers from all over their empire to fight. Troops from the empire played a significant role in the war effort and often faced dangerous conditions and discrimination. One example is the British West Indies regiment.
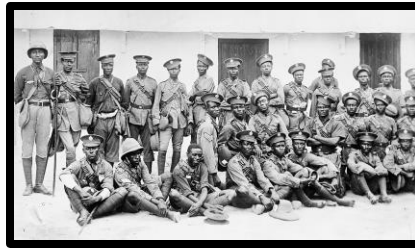
The British West Indies regiment

Many of these men have not been remembered in the same way as their British fellow soldiers despite making many sacrifices to help Britain win the war.
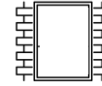
Pals Battalions

The government thought that fighting alongside friends and neighbours, rather than strangers, might encourage more men to join up. However, the negative impact of men joining from the same street and factories was huge. There were tragic consequences Many men were injured or killed. This robbed entire communities of many of their men, and no new pals battalions were created after 1916.

Conscientious Objectors

Ordinary people would stop men who weren't in uniform as they walked down the street and ask why they were not in the services (army, navy and air force). Sometimes they even handed them white feathers, a sign of cowardice.

BRITONS

"WANTS YOU"

JOIN YOUR COUNTRY'S ARMY!
GOD SAVE THE KING

History

How do we remember?

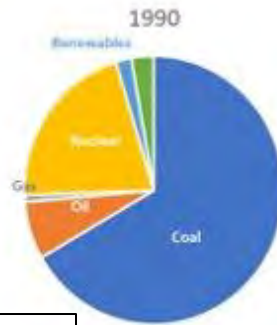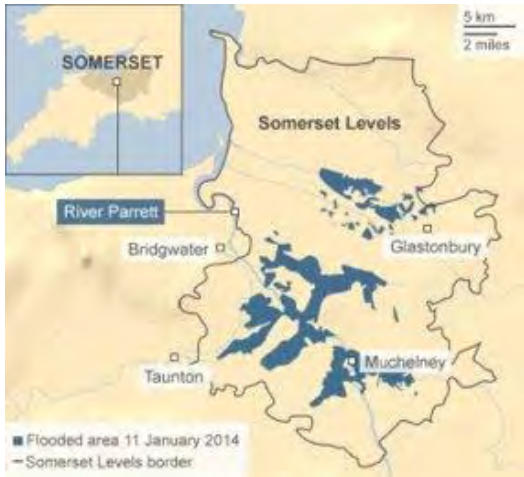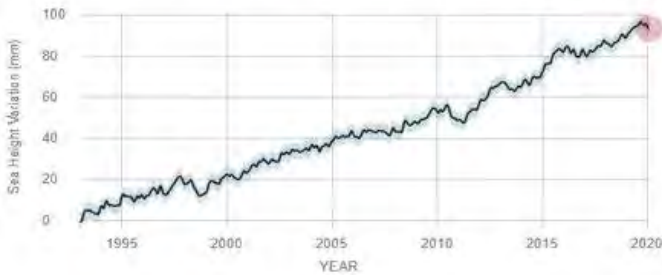| Key People		
Edith Cavell		A British nurse shot dead by German soldiers for helping allied soldiers to escape..
Flora Sandes		A British woman who enrolled the Serbian army and fought in World War One.
Harry Farr		Fought in World War One and was shot for desertion while suffering from shell shock
Alhaji Grunshi		On 7 August 1914, Alhaji Grunshi was responsible for firing the shot fired by a British soldier in Togoland.
Manta Singh		Held the rank of Subedar, his regiment was part of the Indian Expeditionary Force sent to France. He was injured after helping save the life of an injured officer, Captain Henderson.
Walter Tull		He served in France after joining a football Battalion as a Lance-Corpral and was the first African-Caribbean man promoted to infantry officer. He died at the Battle of the Somme.
Khudad ad Khan		The first South Asian person and the first Muslim to receive the Victoria Cross after his team of machine gunners stalled a German advance long enough to allow for reinforcements to arrive.

Grove Park, Weston Super Mare, commemorates the dead locally.

Menin Gate, Ypres, dedicated to those killed in Ypres whose graves are unknown.

The cenotaph the focal point of commemorations in London

The shot at dawn memorial Alrewas, near Lichfield.

Geography

Can you make a decision?

SATELLITE DATA: 1993-PRESENT

Data source: Satellite sea level observations
Credit: NASA Goddard Space Flight Center

RATE OF CHANGE

↑ 3.3 millimeters per year

SOMERSET

Somerset Levels

River Parrett
Bridgwater
Glastonbury
Taunton
Muchelney

5 km
2 miles

■ Flooded area 11 January 2014
— Somerset Levels border

1990
Renewables
Nuclear
Gas
Oil
Coal
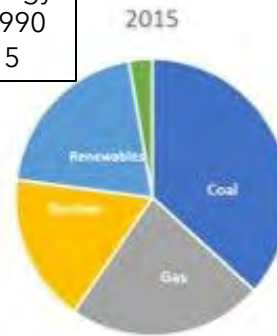
UK's Energy mix in 1990 and 2015

2015
Renewables
Nuclear
Gas
Coal

Keywords	Definition
Decision Making Exercise	A task whereby you are given a range of options and using geographical understanding come to an informed conclusion
Economic	Factors to do with money
Environmental	Factors to do with the environment – landscape and wildlife
Social	Factors to do with people
Stakeholders	Someone with an interest in a particular issue
The Maldives	An island nation found in the Indian Ocean. Made up of low-lying islands that are under threat from sea-level rise
Thermal Expansion	The increase in volume of oceans as they warm
Sea Level Rise	Increase in the height of sea water
Somerset Levels	An area of coastal plain and wetland in central Somerset that is flat and very fertile land lying close to sea level.
Flooding	The covering or submerging of normally dry land with a large amount of water
Flood Defences	Barriers or ways of preventing or controlling the potential negative effects of flood waters
Renewable energy	Resources that can be replaced over time and will not run out, such as water, wind, forests etc
Non-renewable energy	Substances which are limited and so will run out one day or cannot be replaced during our life-time, such as natural gas, coal etc
Energy Mix	The mix of energy use. Renewable energy use is increasing, Non-renewable energy use is decreasing
Park/Farm	A large-scale area covered in solar panels

Geography

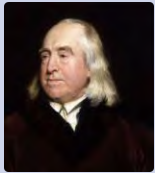| Keywords	Definition
Atmosphere	The thin, fragile layer of gases that surrounds the Earth
Biosphere	All living matter on Earth, including all plant and animal life
Hydrosphere	The water on the surface of the earth in oceans, rivers, lakes, rain, and mist
Lithosphere	The rocky outer layer of the earth, made up of the up mantle and the crust
Interdependent	When two or more factors depend (rely) on each other
Igneous rock	Come from inside the Earth. Igneous rocks include lavas that form during volcanic eruptions, but also include magma that cools down and becomes solid before reaching the surface
Sedimentary rock	Formed from sediments that have settled at the bottom of a lake, sea or ocean, and have been compressed over millions of years. The sediment comes from eroded rocks carried there by rivers or ice, and from the skeletons of sea creatures.
Metamorphic rock	Have been subjected to tremendous heat and/or pressure, causing them to change into another type of rock. They are usually resistant to weathering and erosion and are therefore very hard-wearing.
Crude Oil	Naturally occurring and unrefined petroleum that can be refined into diesel, petrol, gasoline, kerosene, and other petrochemicals
Fossil Fuel	A natural hydrocarbon fuel such as petroleum, coal or natural gas, which is formed by the fossilised (preserved) remains of ancient plants and animals that are deposited over millions of years
Geological time	The long period of time occupied by the earth's geologic history
Raw Materials	The basic materials or substances from which products can be made, such as wood can be transformed into furniture
Natural Resources	Substances that are found in nature which can be used by humans for our benefit, such as water, soil, coal, minerals, wood, animals etc
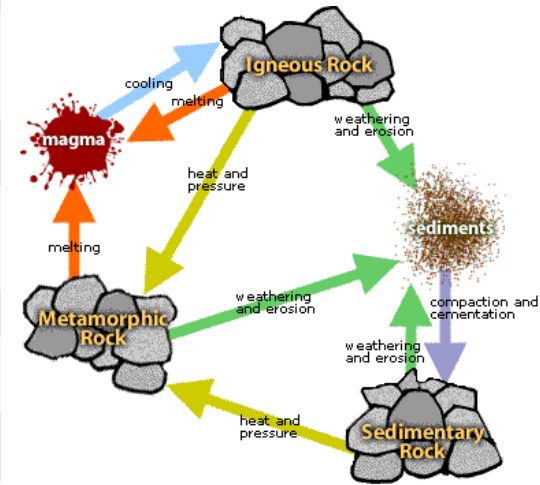
Religion and World Views
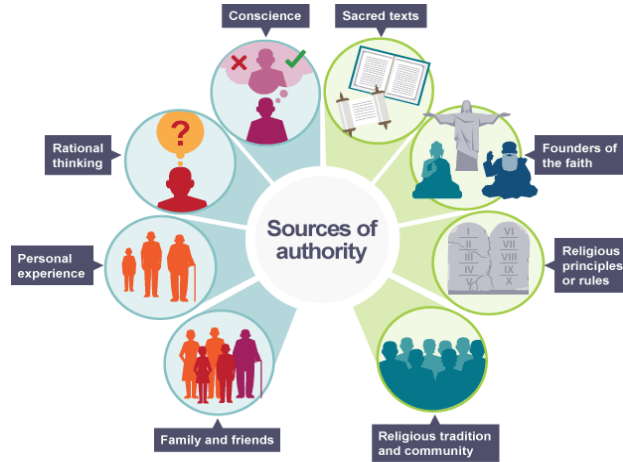
Utilitarianism	Situation Ethics
A theory developed by British philosopher Jeremy Bentham; **do what creates.. 'the greatest happiness for the greatest number'.** This is a consequentialist theory as it believes the greatest happiness for greatest amount of people will produce the best consequences/ outcomes.	A theory developed by American Professor Joseph Fletcher. Inspired by his Christian faith, Fletcher believed that Agape (unconditional love) was the best tool for moral decision making. Fletcher taught that 'the morality of an action, depends on the situation'. This means that, rather than a blanket rule for everyone, such as do what creates 'the greatest happiness for the greatest number**', you should look at each situation individually** and do what is the most loving thing. This is an intentionalist theory as it requires you to look at a situation individually and intentionally do what you believe will be the most loving thing.

Sources of authority: Conscience, Sacred texts, Founders of the faith, Religious principles or rules, Religious tradition and community, Family and friends, Personal experience, Rational thinking

Euthanasia	
Active euthanasia	Something is done to a person to make them die more quickly.
Passive euthanasia	Any form of treatment that might extend a person's life is withdrawn. This is legally allowed in the UK, and so would not be called euthanasia.
Non-voluntary euthanasia	A person cannot decide about euthanasia or cannot make their wishes known, and so someone else.
Voluntary euthanasia	A person asks for their own life to be ended.

Keyword:	Definition:
Autonomy	The ability to make your own decisions
Morality	What societies sanction as right and acceptable
Ethical	Being 'ethical' is about having standards of behaviour and 'doing the **right** thing'. Relating to beliefs about what is morally right and wrong
Conscience	A **person's moral** sense of right and wrong
Abortion	The termination (ending) of a pregnancy
Euthanasia	The act of deliberately ending a person's life to relieve suffering
Death Penalty	Capital punishment, also known as the death penalty, is a state-sanctioned practice of killing a person as a punishment for a crime.
Quality of life	"How good someone's life is" - The standard of health, comfort, and happiness experienced by an individual or group
Sanctity of life	The idea that all life is special and belongs to God.

WHA

How can music tell my story?

Note Values Table

American / German note names	British note names	Note symbols	Note value
Whole note	Semibreve	𝅝	4 beats
Half note	Minim	𝅗𝅥	2 beats
Quarter note	Crotchet	♩	1 beat
Eighth note	Quaver	♪	1/2 of a beat
Sixteenth note	Semiquaver	♬	1/4 of a beat

① ② ③ ④ SYNCOPATION

Songwriting Artists – Go the extra mile!

Adele (b.1988)	Adele is often cited as the one of the most successful female singers in history, selling over 40 million albums and 50 million singles in just five years. Here one of her most famous songs, Someone Like You, here. Can you work out the structure? https://www.youtube.com/watch?v=hLQl3WQQoQ0
Ed Sheeran (b.1991)	Ed Sheeran is a singer-songwriter, famous for his honest and emotional songwriting. His two albums '+' and '÷' are two of the best-selling UK albums of all time. Listen to one of his most emotive songs, Supermarket Flowers, here: https://www.youtube.com/watch?v=bIB8FWqCPrQ
Taylor Swift (b.1989)	Taylor Swift is an American singer-songwriter who has her roots in Country music and has moved more into mainstream pop music in recent years. Have a listen to her song Love Story released in 2008. Can you name the instruments used? https://www.youtube.com/watch?v=8xg3vE8le_E

Song Structure Terms

Verse	The part of the song that sets up the chorus and tells the story.
Chorus	The part of the song that is usually the most memorable, and includes the title. This is typically the part of the song that people remember and sing along with!
Bassline	The lowest pitched part of the music often played on bass instruments such as the bass guitar or double bass. Creative and distinctive basslines make your song stand out!
Melody	The main "tune" of a song or piece of music, played higher in pitch that the **bassline**.
Chord Sequence	The pattern of chords used to create the harmony of the song for the melody
Lyricist	The person responsible for writing the lyrics during the songwriting process.
Strophic	A structure of a popular song which is simply Verse, Verse, Verse etc. It can also be referred to as A-A-A-A etc.
Verse-Chorus Form	A structure of a popular song which makes use of verses and choruses – there's usually an intro, bridge and outro somewhere in there too!

Dynamics: Key Terms

Dynamic Symbol	Italian Term	Definition
<	Crescendo	Gradually get louder
>	Diminuendo	Gradually get softer
ff	Fortissimo	Very Loud
f	Forte	Loud
p	Piano	Soft
pp	Pianissimo	Very Soft

The Keyboard Note Names and Pitches and Finger Numbers

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

LYRIC WRITING TIPS: Create Awesome Rhythm & Rhyme

1 For an 8 bar verse or chorus, structure your lyrics into 4 lines.

2 Put your four lines into PAIRS.

3 Rhyme the last word of each pair. ie:

LINE 1: This is a song that has some rhyme,
LINE 2: Make the pairs rhyme every time.
LINE 3: If you don't it just won't go,
LINE 4: So make it rhyme and it will flow.

Common Piano Chords

A Major, A Minor, C Major, C Minor, D Major, D Minor, E Major, E Minor, F Major, F Minor, G Major, G Minor

The Elements of Music: "Mad T-shirt"

Element	Definition
Melody	The main tune or musical theme.
Articulation	How the notes are played.
Dynamics	How loud and soft the volume is.
Texture	How the layers of sound fit together.
Structure	How sections of music are organised.
Harmony	The supporting chords used with the melody.
Instruments	The apparatus used to create music.
Rhythm	The pattern of notes and their durations.
Tempo	How fast or slow the speed of the music is.

Reading Music on the Stave

Treble Clef: Played by the right hand with higher pitches.

Bass Clef: Played by the left hand with lower pitches.

	Lines of the Stave	Spaces of the Stave
Right Hand (Treble Clef)	E G B D F — Every Good Boy Deserves Football	F A C E — FACE in the spaces
Left Hand (Bass Clef)	G B D F A — Green Busses Drive Fast Always	A C E G — All Cows Eat Grass

Drama

Developing your knowledge, skills and understanding of a variety of theatrical conventions as used by key practitioners.

FRANTIC ASSEMBLY		
Frantic Assembly: A British physical theatre company. Focusing on paired or grouped choreographed performances.	**Brecht:** A German practitioner concerned with Epic and Political theatre.	**Artaud:** A French practitioner who developed the Theatre of Cruelty. His performances were mainly abstract and used lots of physicality.
Style: Physical Theatre Techniques: Freeze Frame, Balance and Supports, Round By Through, Chair duets, movement sequences	**Style: Epic Theatre Techniques:** Direct Address, Placards, Narration, Multi-Rolling, Not/but technique,	**Style: Theatre of Cruelty Techniques:** Senses, Audience participation, Movement, Vocal work

Skills to remember:

Gait	The way you walk	Tone	The way in which you use your voice to show mood
Posture	The position you hold your body when standing or sitting	Emphasis	Changing your voice by adding focus
Stance	The way you stand	Pace	How fast or slow you speak
Body Language	How you express you emotions through your body	Accent	To show which country you are from
Facial Expression	Showing your character's emotions through the way in which your contort the muscles in your face	Proxemics	Use of space on stage
Gesture	A small hand or head movement to communicate meaning	Stage directions	Instructions in scripts

VANITAS (c1550-1650) A still life artwork which includes various symbolic objects designed to remind the viewer of their mortality and of the worthlessness of worldly goods.

The term originally comes from the opening lines of the Book of Ecclesiastes in the Bible: *'Vanity of vanities, saith the Preacher, vanity of vanities, all is vanity.'*

Vanitas are closely related to memento mori still lifes which are artworks that remind the viewer of the shortness and fragility of life (memento mori is a Latin phrase meaning 'remember you must die') and include symbols such as skulls and extinguished candles. However, vanitas still-lifes also include other symbols such as musical instruments, wine and books to remind us explicitly of the vanity (in the sense of worthlessness) of worldly pleasures and goods.

Memento Mori is Latin for reminder of death. Skulls which are represented in Northern European portraits and still lifes, and South European depictions of saints, of the 16th and 17th centuries are perhaps the most obvious examples of such subjects (see for example the anamorphic skull which is depicted in the foreground of Holbein's 'Ambassadors' and the precisely painted example in Steenwyck's 'An Allegory of the Vanities of Human Life').

Such elements are painted as a reminder that death is the great leveller, which puts an end to all worldly achievements and pleasures.

Key Artists	Hans Holbien, Harmen Steenwyck, Cheech Sanchez, Pieter Claesz, Freidrich Odman
Key Artworks	The Ambassadors by Hans Holbein 'An Allegory of the Vanities of Human Life' by Harmen Steenwyck

KEY TERMS

Abstract: Artwork in which the subject matter is simplified; little or no attempt is made to represent images realistically and objects are often distorted.

Collage: An artistic composition made of various materials (e.g., paper, cloth, or wood) glued on a surface.

Mixed media: An artwork in which more than one type of art material is used to create the finished piece.
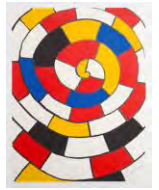
Dada (1916-1924) The movement was an international network that was prominent in Zürich, Switzerland; New York City; Berlin, Cologne, and Hanover, Germany; and Paris. Dadaists were not connected by their styles or techniques. Instead, by their uniform practices and beliefs. They challenged and mocked the definition of art and its elitist establishment with such works as Marcel Duchamps 'Fountain' (1917), which was a porcelain urinal, and they utilized photomontages, as well as many other artistic mediums, in their public meetings to protest against the emerging Nazi party in Germany.

Key Artists	Marcel Duchamps, Hans Arp, Francis Picabia, Man Ray and Kurt Schwitters.
Key Artworks	'Fountain' (1917) by Marcel Duchamp 'Tears' (1930-32) by Man Ray

Computational Thinking
1. **Abstraction:** Removes unnecessary detail to make problems less complex
2. **Decomposition:** Break down problems to make them easier to solve
3. **Algorithmic thinking:** Logical steps to solve a complex problem.

Syntax/Logic errors
1. **Syntax error:** Error in the rules of the language (spelling of a command word)
2. **Logic error:** Code runs, just not as you expect it to.

Data Structures
Data structures are used to **store data in the computer's memory**. Each data structure is given a name, which we can used to identify where the data is located.

3 examples of a data structure

1. **Variable:** The data **can change** when the program is running
1. **Constant:** The data **cannot change** when the program is running.
1. **Array:** Is able to store **more than 1 value** at a time.

Algorithms

An algorithm is a **step by step plan** to help solve a problem.

We use 2 different types of algorithm when designing computing programs:

Flowcharts: A **graphical representation** of planning how a computer program might work, and show others your thinking. It uses different shapes to represent **inputs, outputs, decisions and processes.**

Pseudocode: a plain language description of the steps in an algorithm or another system. It **looks similar to code**, but it **doesn't have to follow any particular syntax rules.**
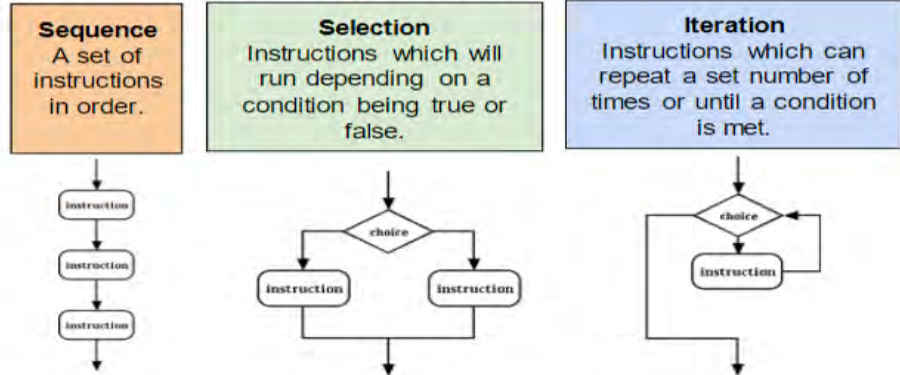
```
1.  password= "giraffe"
2.  INPUT "Please enter your
    password"
3.  Store input as userPass
4.  IF userpass==password
5.      PRINT "Login successful"
6.  ELSE
7.      PRINT "Incorrect password"
8.  ENDIF
```

The 3 Main Programming Constructs

Sequence
A set of instructions in order.

Selection
Instructions which will run depending on a condition being true or false.

Iteration
Instructions which can repeat a set number of times or until a condition is met.