

Year 8 Knowledge Organiser

Spring Term 2025/26

Name:

Form:

Week 1/A

	Monday	Tuesday	Wednesday	Thursday	Friday
Tutor Time					
1					
2					
3					
4					
5					

Week 2/B

	Monday	Tuesday	Wednesday	Thursday	Friday
Tutor Time					
1					
2					
3					
4					
5					

Contents Page

Page	Content
4	Policies, Pastoral Contact & Term Dates
5	Personal Details
6 – 7	Calendar
8 – 9	Homework Log and Parental Check
10 – 11	Reading Log
12 – 13	Reading Passport
14 – 15	Instructions and Revision Strategies
16 – 17	Art
18 – 19	Citizenship
20 – 21	Computing
22 – 23	Drama
24 – 25	English
26 – 27	Food Preparation and Nutrition
28 – 29	French
30 – 31	Geography
32 – 33	German
34 – 35	History
36 – 37	Mathematics
38 – 39	Music
40 – 41	PE
42 – 43	Religious Studies
44 – 45	Science – Biology
46 – 47	Science – Physics
48 – 49	Spanish
50 – 54	Technology
55 – 57	School Pages
58 – 59	Staying Safe and British Values

Spring Term

Attendance and Absence

In cases of absence, parents are asked to contact the relevant staff office, as early as possible, giving details. The only acceptable reasons for absence are unavoidable ones such as illness. Appointments of all kinds should be made out of school time whenever possible.

Punctuality

While some delays are unavoidable, pupils should be punctual to lessons. Anyone arriving late to school must report to the relevant staff office and use the late system in order to get a mark. Late after registration closes is technically an **unauthorised absence**.

Pastoral Support Contacts

Telephone Number:

Email Address:

Term Dates Summary

Autumn Term 2025		
Wednesday, 3 Sept – Thursday, 23 Oct 2025	Half-term: Monday, 27 Oct – Friday, 31 Oct 2025	Monday, 3 Nov – Friday, 19 Dec 2025
Spring Term 2026		
Tuesday, 6 Jan – Friday, 13 Feb 2026	Half-term: Monday, 16 Feb – Friday, 20 Feb 2026	Monday, 23 Feb – Friday, 27 Mar 2026
Summer Term 2026		
Wednesday, 13 Apr – Friday, 22 May 2026	Half-term: Monday, 25 May – Friday, 29 May 2026	Monday, 1 Jun – Tuesday, 17 Jul 2026

My best subject is:

What I want to achieve this term:

School Login Details:

My extra curriculars this term:

Spring Term 1 Calendar

January 2026		
1	Thu	Xmas &
2	Fri	New Year Break
3	Sat	
4	Sun	
5	Mon	Teacher Training
6	Tue	
7	Wed	
8	Thu	
9	Fri	
10	Sat	
11	Sun	
12	Mon	
13	Tue	
14	Wed	
15	Thu	
16	Fri	
17	Sat	
18	Sun	
19	Mon	
20	Tue	
21	Wed	
22	Thu	
23	Fri	
24	Sat	
25	Sun	
26	Mon	
27	Tue	
28	Wed	
29	Thu	
30	Fri	
31	Sat	

February 2026		
1	Sun	
2	Mon	
3	Tue	
4	Wed	
5	Thu	
6	Fri	
7	Sat	
8	Sun	
9	Mon	
10	Tue	
11	Wed	
12	Thu	
13	Fri	
14	Sat	
15	Sun	
16	Mon	Half Term
17	Tue	Half Term
18	Wed	Half Term
19	Thu	Half Term
20	Fri	Half Term
21	Sat	
22	Sun	
23	Mon	
24	Tue	
25	Wed	
26	Thu	
27	Fri	
28	Sat	Half Term

Spring Term 2 Calendar

March 2026		
1	Sun	
2	Mon	
3	Tue	
4	Wed	
5	Thu	
6	Fri	
7	Sat	
8	Sun	
9	Mon	
10	Tue	
11	Wed	
12	Thu	
13	Fri	
14	Sat	
15	Sun	
16	Mon	
17	Tue	
18	Wed	
19	Thu	
20	Fri	
21	Sat	
22	Sun	
23	Mon	
24	Tue	
25	Wed	
26	Thu	
27	Fri	
28	Sat	
29	Sun	
30	Mon	Easter Break
31	Tues	Easter Break

April 2026		
1	Wed	Easter Break
2	Thu	Easter Break
3	Fri	Easter Break
4	Sat	
5	Sun	
6	Mon	Easter Break
7	Tue	Easter Break
8	Wed	Easter Break
9	Thu	Easter Break
10	Fri	Easter Break
11	Sat	
12	Sun	
13	Mon	
14	Tue	
15	Wed	
16	Thu	
17	Fri	
18	Sat	
19	Sun	
20	Mon	
21	Tue	
22	Wed	
23	Thu	
24	Fri	
25	Sat	
26	Sun	
27	Mon	
28	Tue	
29	Wed	
30	Thu	

Homework Log and Parental Check

Week 1	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 2	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 3	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 4	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 5	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 6	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 7	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			

Homework Log and Parental Check

Week 8	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 9	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 10	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 11	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 12	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 13	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 14	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			

Reading Log

Use this reading log to keep a record of the books you read during the year. You should also use this reading log to record the books from the Reading Passport that you have read but make sure your tutor records them, too.

Title and Author	Date	Starting Page	Last Page	Review and Test Score	Reading Log
					Teacher Initials
Title and Author	Date	Starting Page	Last Page	Review and Test Score	Reading Log
					Teacher Initials
Title and Author	Date	Starting Page	Last Page	Review and Test Score	Reading Log
					Teacher Initials

Title and Author	Date	Starting Page	Last Page	Review and Test Score	Reading Log
					Teacher Initials
Title and Author	Date	Starting Page	Last Page	Review and Test Score	Reading Log
					Teacher Initials
Title and Author	Date	Starting Page	Last Page	Review and Test Score	Reading Log
					Teacher Initials

Year 8 Reading Passport

We have created a Reading Passport to inspire students to read some of the best literature available to them. Over the course of the year, we expect students to read as many of the texts included in the passport for their year group as possible.

If students manage to read 7, or more, books from this passport by the end of the year they will receive a certificate. They can, of course, read other books and texts throughout the year and we encourage and support students' wider reading. Students can track which texts they have read using the tick boxes on the next page.

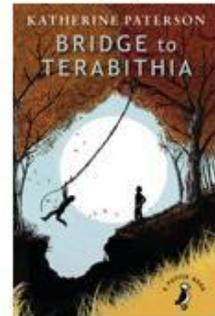
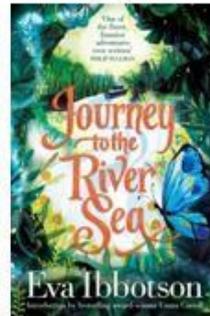
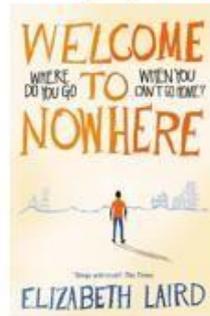
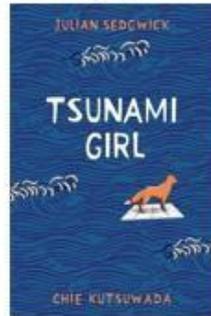
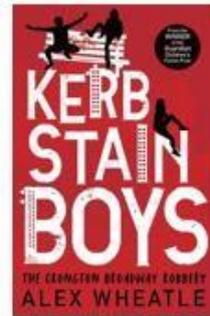
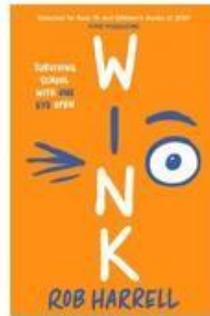
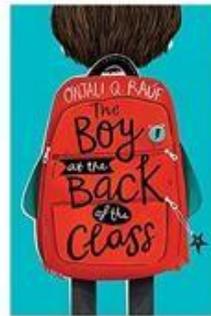
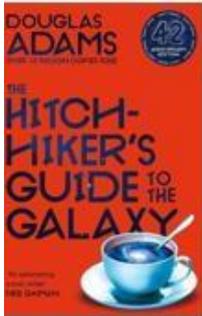
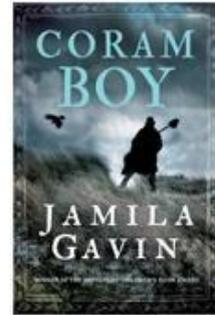
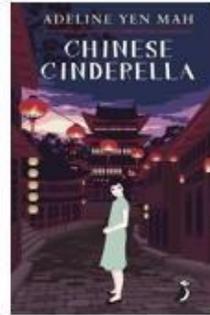
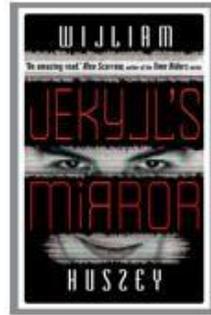
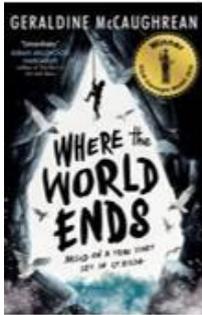
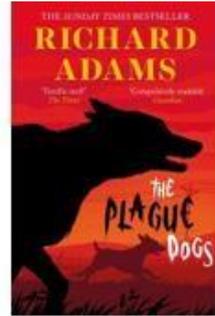
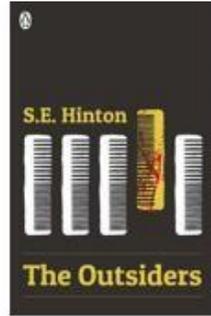
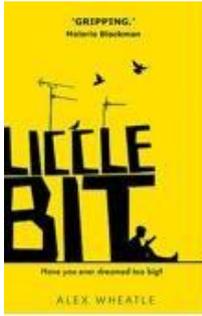
The books selected are fantastic examples of modern and classical literature, representing the best the world has to offer. Students can read these texts independently or they could listen to them on audiobook. The important thing is that they will experience a variety of genres, authors, and stories! We hope that all students will finish Year 11 having read at least 35 incredible books.

The easiest way to get hold of these books is from our school library where children can take them home to read. These texts can also be purchased from Amazon, or from many local bookstores.

Whilst every care has been taken to check the suitability of the books included in our Reading Passport, we are aware that children mature at different rates. Therefore, we strongly recommend that parents discuss their child's reading choices to ensure they are appropriate for them.



Year 8 Reading Passport



Instructions for Using Your Knowledge Organiser

Every school day, you should study 1 to 2 subjects from your knowledge organiser for homework lasting at least 1 hour in total.

On pages 8 and 9 there is space for you to record the subjects you have studied to make sure you are giving equal time to all of them. Your parent should sign off your homework each evening on these pages.

Your parent should also sign your reading log on pages 10 and 11. You can use the note pages in this booklet to help with your studies.

You need to bring your Knowledge Organiser to school every day. It will be checked regularly during form time.

You will be regularly tested on knowledge contained in this booklet.

8 Top Revision Tips

1 Start early

Last minute cramming is stressful and has limited success.



2 Make a plan

Work out how much time you have and how much of it you can spend on each subject.



3 Pick a good spot

Find a quiet and comfortable spot away from distractions and keep all of your things in one place.



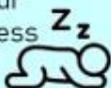
4 Find a good method

Choose the best revision methods for you and try to use a mixture of methods for the best results.



5 Take breaks

It is possible to work too hard! Your brain needs rest and time to process the information you've studied.



6 Revise with friends

Talking through what you've learned with a friend can help information stick.



7 Use past papers

These are a great way to test yourself and a good way to get used to the exam format



8 Eat well

You need to maintain a healthy diet to be able to retain information and not lose energy or focus during study.



LONG TERM MEMORY



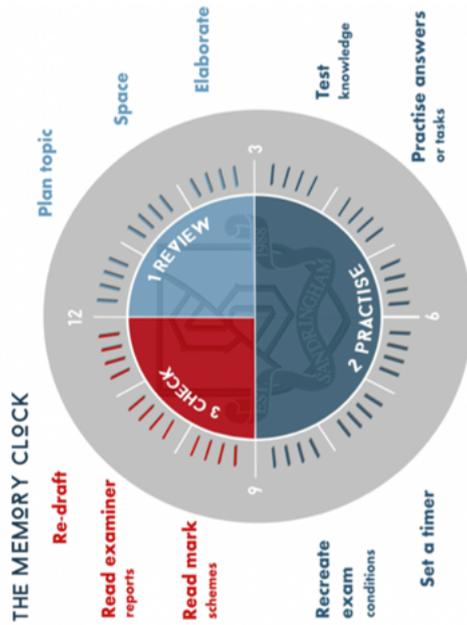
Retrieval Practice

Create your own quizzes based on topics.
Create them, test yourself or get someone to test you, it works!



Deliberate Practice

Apply your knowledge!
Revise it, practice exam questions and then go over using your notes, adding or redrafting!



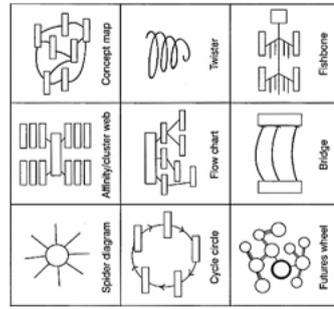
Answer Planning

Practice planning exam question answers.
Bullet point, speed plan and draft key paragraph questions.



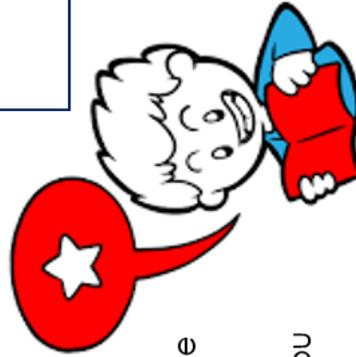
Graphic Organisers

Transform the information into visual revision to create links, show a narrative, identify the causes, consequences and importance.



Read Aloud

Simply speak the facts and dates out loud as you're reading the Knowledge Organiser. Even try to act out some of the facts – it really helps you remember!



Sketch it

Draw pictures to represent each of the facts or dates. It could be a simple drawing or something that reminds you of the answer.



PRACTICE
MAKES
PERFECT

Practice!
Some find they remember by simply writing the facts over and over again.

Hide and Seek

Read through your knowledge organiser / book, put it down and try and write out as much as you can remember. Then keep adding to it until its full!



Teach it!

Teach someone your key facts and then get them to test you, or even test them!

Flashcards



Create with questions on one side and answers on the other side. Colour code specific topics and quiz yourself.

Record it

Record yourself on your phone or tablet reading out the information. These can be listened to as many times as you want!



Post its

Using a pack of post-it notes, write out as many of the keywords or dates as you can remember in only 1 minute!

Year 8 Spring Term Knowledge Organiser

Printmaking is the process of creating artworks by printing, normally on paper. Printmaking normally covers only the process of creating prints that have an element of originality, rather than just being a photographic reproduction of a image or a painting.

Art – Typography– Printmaking:

Art Specific Language and Terms		
Typography	Typography is the art and technique of arranging type to make written language legible, readable, and appealing when displayed.	Screen printing
Lino-cut printing	Lino-cut printing is a form of printmaking where the printing plate is cut into lino. The lino-cut is then inked, a piece of paper placed over it, and then run through a printing press or pressure applied by hand to transfer the ink to the paper.	Graphic Designer
		A printing technique where a mesh or screen is used to transfer ink onto a surface, except in areas made impermeable to the ink by a blocking stencil. Graphic designers create visual concepts, using computer software or by hand, to communicate ideas that inspire, inform, and captivate consumers. They develop the overall layout and designs for advertisements, brochures, magazines, and branding.

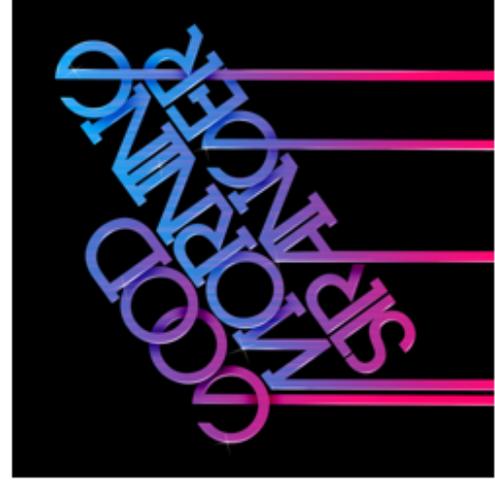
Typographical Art:

BURNING ALL BRIDGES SHE WON'T EVEN KNOW WHAT THAT MEANS, SHE IS SO BEAUTIFUL THOUGH, TWELVE FIFTY FOR MY FIRST PAINTING CAUGHT BETWEEN EGO AND TRUE SELF, THANK YOU FOR THIS DAY, VISUALISING MY WORLDWIDE SUCCESS AS THE GREAT TEST ARTIST OF MY GENERATION, PRAYING TO GOD THAT HE SENDS MESSAGES, MY Y-SOULMATE PRETTY SOON, MUM USED TO DRIP ME AND LIL BRO AT SCHOOL AND SAY WE WERE BLESSED AND FAVOURED, WE ALL ARE, WE ARE WALKING MIRACLES, MORE WILL BE REVEALED, MY FRIEND, LORD PLEASE FORGIVE ME FOR MY SINS, I HAVE WEBBED FEET AND A SUPER, EX-DRIVE, JOE IS A REAL TARGUS, DISCOVERED MY LIFE'S PURPOSE IS TO GIVE LOVE THAT IS ALL I WANT TO DO, THAT IS ALL THAT MATTERS, I WAS REMINDED BY ZOE DSTEEN THIS MORNING THAT GOD HAS GREAT THINGS PLANNED FOR US, THIS IS A TEMPORARY WORLD, A WAITING ROOM BEFORE PARADISE, HER FACE LOOKS LIKE PARADISE, HEART-SHAPED FACE AND LIPS MAKE ME GOOH, JUST ANOTHER GODD VIBRATION, PUT THAT SPOTLIGHT ON MY FACE, I LOVE A GODD, INNUENDO ON THE NINTENDO, THE FAMILY CALL ME, I WANT TO BE PICASSO, MINOTAURS & ANTADORS EXHIBITION YESTERDAY, THANK YOU FOR THE INSPIRATION, PICASSO, PERHAPS I JUST WANT TO BE FAMOUS SO THAT EVERYONE WILL LOVE ME ON MY GODDNESS, I'M GONNA GET HER BETTER THAN AN OTHERS POCKET, YOU ARE THE AVERAGE OF THE 5 PEOPLE U SPEAK TO, MOST TIME WITH SO MANY DON'T YOU SPEND MORE TIME WITH ME? GODD, DIDY PAT GOODBYE TINA, DRAKE'S ALBUMS ARE THE SOUNDTRACK TO MY LIFE, I'M RECALIBRATED, I REBORNED, SOMEONE'S X1000, FEEL GOOD, LOVE YOU, I LOVE YOU, STONEY, LMAO, UP, CLUE YOUR EYES AND SEE, END OF JULY 2017, ALL THE BEST.

Lewis Durrant



Ronald Hunter



Nicolas Girard



Craig Ward

Year 8 Spring Term Knowledge Organiser

Art – Typography– The Art of Lettering:

Art Specific Language and Terms			
Typography	Typography is the art and technique of arranging type to make written language legible and appealing when displayed.	Leading	leading is the space between individual lines of type.
Typographer	A Typographer is someone who designs a typeface or who arranges type.	Display Typeface	A display typeface is a typeface that is used for visual impact, rather than for extended passages of text.
Kerning	kerning is the process of adjusting the spacing between letters.	Script Typeface	Script fonts can be formal scripts, derived from 17 th century formal writing or styles that look informal or handwritten as well as calligraphic scripts which emulate calligraphy.

Types of Font:

Sans-serif:
(without flicks)

AaBbCc

Serif:
(with flicks)

AaBbCc

Changing the

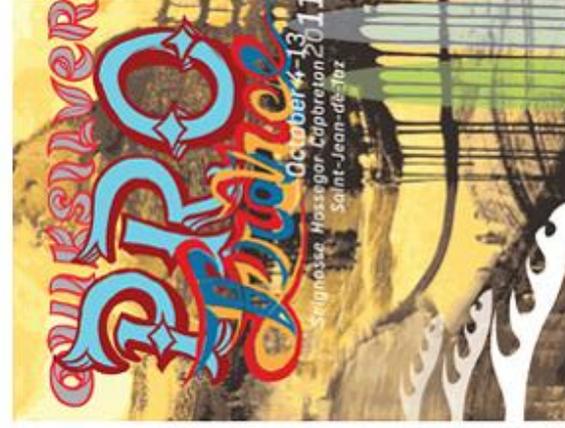
weight or

Sans is the French word for without.

Weight and Size:

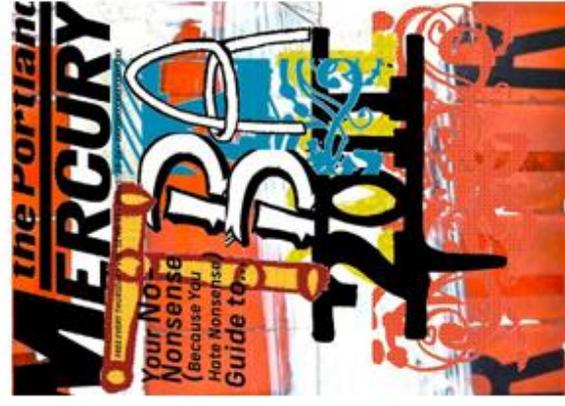
SIZE

of type
changes the *emphasis*



Typography:

David Carson is an American graphic designer. He is best known for his innovative magazine design, and use of experimental typography. He was the art director for the magazine Ray Gun and was perhaps the most influential graphic designer of the 1990s.



Y8 CITIZENSHIP KNOWLEDGE ORGANISER

Spring Term

Budget

A plan showing income (money coming in) and expenditure (money spent) which allows you to work out how much you are able to spend.

Tax

Money paid to the government by individuals and companies. This is spent on public services like the NHS and schools.

Debt

Something that is owed or that one is bound to pay to or perform for another.

The Economy

An economy is a system of making and trading things of value. It is usually divided into goods (physical things) and services (things done by people).

The Annual Budget

The governments plans for spending and managing taxes and public funds for the year.

The Chancellor of the Exchequer

The Chancellor of the Exchequer (called The Chancellor for short) is the government's chief finance minister and one of the most senior members of the Cabinet. They are responsible for setting levels of tax that people must pay and decides how much we will spend on public services across the UK. They announce these changes each year in the Annual Budget Statement.

Public Services

These are services provided to the public and paid for by taxes collected by the government. The taxes are taken from people's wages and used by the government to provide many essential services.

Public services are available to everyone, usually for free. Every person in the UK is entitled to a free education and free healthcare via the NHS.

How are people paid for jobs?

If you get paid a **salary**, this is when you are told the amount of money you will earn in one year. You will normally receive the same amount of pay every month in your bank account. **Some people get paid an hourly rate, when you earn a set amount for every hour that you work. The more hours you work, the more pay you'll receive. You can get paid piece work** – this is when you're paid a set amount for every item you make. The more items you produce, the more you'll be paid. **Sometimes people get commission** – this is mostly for sales jobs, when you receive a share of all the sales you make. Often you will get commission as an extra on top of your salary.



Command Words

Argue	Present a reasoned case
Apply	Put your ideas into effect in a relevant way
Compare	Identify similarities and/or differences
Consider	Review and respond to given information
Debate	Present different perspectives on an issue
Outline	Set out main characteristics
Suggest	Present a possible case/solution
Summarise	Present key points without detail

Making Connections

How can you link different topics together?

Government + Budget + Taxes
 Taxes + Public Services
 Public Services + Budget
 Debt + Budget
 Taxes + The Annual Budget + Economy
 The Chancellor + Cabinet + Public Services

What is a budget? A plan for what you will spend – with a timescale.

Why budget? Puts you in control, understand your spending better, it allows us to save for the future, provides financial security and you can buy more of the things you like.



Y8 CITIZENSHIP KNOWLEDGE ORGANISER

Spring Term

Constituency The voters in a particular area who elect an MP to Parliament.
Manifesto A statement of policies and aims, usually released around the time of a general election.
Government The winning party in a General Election form the government. The Government is led by the Prime Minister. The Prime Minister belongs to the political party with the majority of the seats.
MP Member of Parliament - an elected representative who works in the House of Commons. There are 650 all together.
Houses of Parliament Parliament is the place where MPs and Peers meet to make decisions and pass laws. Parliament makes sure that the government are running the country properly.



Fixed Term Parliament Act 2011

This is a piece of legislation (law) that means that a General Election must take place every five years.

The Government are in charge of many aspects of our daily lives, such as...

- ✓ Education
- ✓ Healthcare
- ✓ Police
- ✓ Housing
- ✓ The economy

The cabinet is a group of MP's who are hand chosen by the Prime Minister to help make important decisions and run important departments... like health, education and the Treasury which is in charge of all the money raised through taxes!

Command Words	
Argue	Present a reasoned case
Apply	Put your ideas into effect in a relevant way
Compare	Identify similarities and/or differences
Consider	Review and respond to given information
Debate	Present different perspectives on an issue
Outline	Set out main characteristics
Suggest	Present a possible case/solution
Summarise	Present key points without detail

Home Secretary
Responsible for running the police, prisons, law and order and the justice system.

Chancellor
Responsible for managing finances of the Government – how much is spent and how much is collected in taxes – and preparing for the budget.

Defence Secretary
Responsible for defence of the country, including armed forces and weapons.

Voter Apathy

A lack of interest in voting – usually because of a lack of political knowledge.

Making Connections
How can you link different topics together?

- Constituency + MP + Representation
- Cabinet + MP + Responsibility
- Democracy + MP + Cabinet + Prime Minister

Who can and cannot vote?

- ✓ Over 18
- ✓ On the electoral register
- ✓ British Citizen
- ✗ In the House of Lords
- ✗ In prison

Yay!

Nay!

Government, Politics & Elections

Computer Science – 8.3 Web Authoring Keywords

Web Authoring	Web Authoring is the process of using a graphical interface to create a web page or website. The advantage of using this method as opposed to straight HTML is that you can create the look of the finished product in an easier 'point and click' way. A disadvantage may be that the Web Authoring software generates more, unnecessary code that results in a bigger file size.
Template	A template is a pre-set layout that can be used instead of starting from scratch. This may take less time and look professional, however it may not meet your needs fully.
Response Forms	Interactive element. A way of allowing the user to input information through you website and have that information stored exactly as the user input it.
Interactive menu	Interactive element. Interactive menus can be used as an easy way to navigate a website without the need to remember command line instructions.
Image roll over	Interactive element. An image that allows the user to interact with the page. Usually this occurs when the user hovers the mouse over the image and the image changes in some way.
Web links	Interactive element. Shortcuts to places either within the website or sometimes external links that take the user to a linked website elsewhere.
Site search	Interactive element. A field that searches the site, usually, for keywords or phrases. The benefit of this is that the user is less likely to get 'lost' or frustrated and leave the site to access an alternative.
Audience	Which group of people is the Website being created for? The intended user of the website. This could be an age, gender, situation, religious group, occupation, ability or a mixture of them all.
Purpose	The purpose of a website relates to the reason that the site is in existence. This may be to sell, inform, teach, socially connect, promote, display information etc.
Root Folder	The folder that will contain all of the documents, files and folders that relate to the website.
E-Safety	E-safety is safe and responsible use of technology on the computer and the internet.
Reliability	Reliability of information often comes down to the source, where you have got the information from. Did you get your information about today's weather from the Met office or Bob down the road? Which is likely to be more reliable? Who/where gave me the information, do I trust it? Why do I trust it?
Sitemap	The underpinning structure and navigation of a website.
Target Audience	When creating a product we often have a target audience in mind. That is, WHO are we making this product for? A website aimed at children may look remarkably different for a website aimed at adults who are sight impaired.
Target Audience needs	Difference audiences will have different needs. For example, certain groups may need more or less colour, can handle different types and complexity of language, use bigger smaller text, need more or less interactive features etc.
Accessibility features	Can everybody access your website? For those who struggle with small text is there a magnifier or narration option? High or low contrast version for those with certain conditions, etc.

What is a website?

A button that links to another page is a form of?

- A. Direction
- B. Navigation
- C. Accessibility

Give 2 factors to consider when designing a GOOD website?

- 1.
- 2.

Give 2 benefit of using a template

- 1.
- 2.

Computer Science – Python Keywords

Comments	Comments are notes in programs that the compiler/interpreter ignore. In Python you write a comment by first typing a #
Variable	Is a space in memory to store some information, that we can be used later on in a program. This information can take on many forms it is therefore variable (it can change)
Data Types	Data Types are categories that define what a variable can store. Like in a child's game the square brick must go in the square hole, and a round brick in a round hole.
String	String is a type (category) of variable. Strings are combinations of letters and or numbers. Anything in quotes is a string For example . "a" "ABCD" "123" "Hello world 123"
Integer or int	Integer or int is a type (category) of variable. An integer or int is a whole number. For example 1, 123, 1234567
Float	Float is a type (category) of variable. A float is a decimal number. E.G 1.2, 1.234, 0.123
Boolean	Boolean is a type (category) of variable. A Boolean can be True or False.
List	A List is a type (category) of variable. It can store multiple pieces of information in one variable. Lists can store a mixture of strings, ints, floats, even other lists. Think of it like a shopping list.
Cast/Casting	Casting means to change a variables type (Category). For Example int ("123") becomes 123 str(123) becomes "123" str(1.23) becomes "1.23" and float(123) becomes 123.0
Input Command	A way to get information into the computer when programming. E.G. input("Enter your name")
Output Command	A way to get information out of the computer when programming. E.G. print("Hi Bart")
Concatenation	Concatenation means to link or join things together. In programming we use it to "glue" strings together. For example "Cat" + "Hat" would become "Cathat"
Mathematical Operators	Are mathematical functions that can be performed on integers and floats. For example add (+), subtract (-), multiply (*) divide (/), MOD (%), Integer Division (//), exponent (**)
Assignment Operators	Are used to assign values to variables. For example =, +=, -=, *=, /=
Conditional Statements	A conditional statement is an if statement. If statements can be true or false (like a Boolean variable)
if elif else	How we deal with a conditional statement/selections. For example: if HomeworkNearlyDone print("1 hour of Xbox") elif HomeworkComplete print("You can play Xbox"), else print("Do your homework!")
Comparison Operators	Used with conditional statements if, elif, and else as all can be resolved to true or false. For example: == 'equal to' != 'not equal to' > 'greater than' < 'less than' >= 'greater than or equal to' <= 'less than or equal to'
Logical Operators	Used to combine conditional statements so they resolve to a single true or false answer. I.E. 'and' 'or' and 'not' For example if HomeworkDone and BedroomTidy print(" You can play Xbox")
Iteration	Means to do the same process over and over again in a loop.
for	A type of loop used in programming when we know how many time we want to iterate.
while	A type of loop used in programming when we do not know how many time we want to iterate.
Syntax Error	An error in the written code. Like a spelling or grammatical error when writing a sentence.
Logic Error	When the code runs, but does not do what you expect. Logic errors are far harder to fix.

What is the variable used in this python code?

```
age = input("How old are you?")
```

Explain this piece of python code.

```
age = input("How old are you?")
Print (age)
```

Give 2 rules for naming variables.

- 1.
- 2.

What will the output be when this piece of python code is run.

```
numb1 = 5
numb2 = 9
Answer = numb1 + numb2
Print (answer)
```

Practice Task

1. Watch Frantic Assembly's ignition performance and notice where the building blocks are.
<https://www.youtube.com/watch?v=9JzdIPsDAmE>
2. Listen to Frantic Assembly's music for devising, what stories do you hear in the music how could you use this in a complicate performance?
https://www.youtube.com/watch?v=9SBNCYkScU&list=PLfm36mehsxeTs75GL_72Ds7LbK8LbXueR

Features of Frantic work

- The use of the body as the primary (but not exclusive) method for story telling.
- Dance
- Mime
- Demonstrative movement
- Use of sound to create atmosphere and mood
- Dialogue.
- Music is very important in Frantic's work

How Frantic Assembly create their work

It is about the ethos of collaboration, of empowerment, of that constant desire to improve. It is about telling stories in a voice we don't always hear and about finding talent in places we don't always look. When we make the work, we talk about Building Blocks – small, secure steps that lead to discovery. We have a mantra, 'Always Forward, Never Back' and through this and these small, secure steps we WILL find a way.

Vocabulary

Definition

Three universe	A technique that gets a performer to think about the moment, before the touch, of the touch & after the touch
String of Chorography	The art of putting together a range of movement sequences together to create one piece of movement.
Round by through	A sequence of movement, often performed by two people, which involves partners moving round, by and through one another.
Hymns hands	A sequence of contact movement, often performed by two people, that involves moving hands on each other's torsos.
Chair duets	A series of contact movements that are performed mainly on chairs, often between two people.

Drama Physicality and Movement

History of....

Complicite was founded in London 1983
Artistic Director – Simon McBurney
Influenced by theatre practitioner Jacques Lecoq

Key Questions:

1. Who is the lead practitioner in Frantic Assembly?
2. What does it mean to work as an ensemble?
3. What are the Seven Levels of tension Complicite use within their performances?
4. What are the similarities and differences between Complicite and Frantic Assembly?

FRANTIC ASSEMBLY

History of....

Frantic Assembly was founded in 1994 by Scott Graham, Steven Hoggett and Vicki Middleton. We were suddenly inspired and then encouraged to form our own theatre company.

Complicite Performance Techniques

- Seven Levels of Tension
- Physical theatre
- Mime
- Gesture
- Dance
- Movement Motif
- Clowning

Features of Complicite's work

- Ensemble work
- Multimedia
- Multi Role
- Slow Motion
- Minimal fixed set
- Universal props
- Voiceovers
- Split stage
- Puppetry
- Direct address

How Complicite create their work

In the making of work, it is a story that is being told, with the way of telling it gradually emerging from a series of connected ideas that increase in complexity as rehearsals progress.

At the start, the company might attempt to divide a short piece of text into ten written phrases or five images, but as they progress their ideas, they may end up using a combination of sound, video, physical theatre in space and spoken dialogue to tell a fragment of story.

Vocabulary

Definition

Ensemble	Actors working as a group.
Multi role	An actor plays more than one role in performance.
Puppetry	a form of theatre or performance that involves the manipulation of puppets – inanimate objects, often resembling some type of human or animal figure, that are animated or manipulated by a human called a puppeteer
Physical theatre	Communicating a story or meaning through movement.
Clowning	Clowning as we practise it consists of improvisations on a stage and as such is a form of theatrical expression.
Gesture	a movement of part of the body, especially a hand or the head, to express an idea or meaning
Mime	Mime is the theatrical technique of expressing an idea entirely by gesture and bodily movement without the use of words. Miming uses gesture and movement.



Drama

Verbatim Theatre & Theatre In Education



Verbatim Theatre

- Verbatim theatre takes the words of real people and puts them into the context of a play.
- Sometimes the interviewer's questions are included to create dialogue.
- Sometimes the questions are removed to create a monologue.
- The words are usually gathered by interviewing people and recording their responses.
- The words can also be gathered from interviews that have been broadcast on the television or radio.

Technical Terminology

Prop	Objects used on stage by actors during a performance.
Costume	A set of clothes worn by an actor in a particular role.
Set	Scenery used to identify the location of a scene / play.
Lighting	The arrangement of theatre lights to achieve dramatic effects.
Sound	The sound used to create atmosphere, emphasise what is happening on stage, set the scene, and indicate time or location.

Practice Task

1. Collect some research on a topic that you feel would make a good verbatim theatre piece.
2. Watch one of the verbatim theatre performances. Why was it so effective?

Verbatim theatre performances
For the record - Based on the
Hillsborough disaster
<https://www.youtube.com/watch?v=84C1R5e6dM8>

London's burning - based on 2011 riots
<https://www.youtube.com/watch?v=10B0100wCA&list=PLoPwWagAurTLU>

Can we talk about this? - Based on forced Marriage
<https://www.youtube.com/watch?v=yIVFumE1PuA>



Facial Expression

The feelings expressed on a character's face.

Body Language

The way in which a character communicates using gestures, movements and mannerisms.

Voice

The way in which the voice is used to present emotion using Tone (Emotion) / Pitch (High or Low) / Pace (Speed) / Volume (Loud or Quiet) / Accent (Region).

Space

The area between and around the actors. The theatre space in which the drama takes place.

Levels

Characters being visually higher or lower on stage than other characters.

Proxemics

Communicating to the audience what the relationship of the characters is like through the use of space/distance.

Tension

When the character is tense. The concept of making the audience want to know what will happen next.

Semiotics

The signs and symbols created on stage, that an audience finds meaning from (visual and audible).

Character

A person represented by the actor.

Dialogue

Speech / conversation between two or more people.



Verbatim Theatre Companies
Paper Birds
Lung Theatre Company
Out of Joint
Écoute Theatre
Artemis Theatre Company

Key Questions

- What makes a good verbatim performance?
- What are the similarities and differences between verbatim theatre and Brechtian theatre?
- What drama techniques would you add into a verbatim theatre piece?
- Can verbatim theatre be naturalistic? Is so how and why?

When asked how to create a play for children, Stanislavski replied: "The same as for adults, only better."



Vocabulary

Definition

How it can be used in a TIE performance

Direct Address	Direct Address is when an actor speaks directly to the audience, explore an idea, emotion or opinion. Sometimes they may expect an answer from them too (audience participation).	This breaks the 4 th wall and is a good way of adding audience participation and engagement
Multi Role	Multi-rolling is when an actor plays more than one character onstage. The differences in character are marked by changing voice, movement, gesture and body language but the audience can clearly see that the same actor has taken on more than one role.	This is really useful and allows you to have many more roles than actors. Remember TIE is usually done on a budget and is a traveling form of theatre.
Flashback and Flash-forward	Performers in a scene are asked to improvise scenes which take place seconds, minutes, days or years before or after a dramatic moment. This enables the exploration of characters' backgrounds, motivations and the consequences of their actions.	These are very useful in showing what happened before the moment of choice. Very often in TIE there is a dilemma, decision or consequence involved. Flashbacks can add tension to the work.
Monologue	Monologue is where one character speaks to the audience. An actor can choose to involve the audience or not.	Monologues can be used in TIE to tell characters points of view, recall events, show emotion, tell the audience how you are feeling. They are a very powerful tool!!!
Protagonist	The leading character or one of the major characters in a play.	The plot of the piece often follows the revolve around the protagonists story. They often become the narrator.
Stereotypical Characters	A widely held but fixed and oversimplified image or idea of a particular type of person.	All Character in the performance are stereotypical, so the audience can relate to them

Six steps of TIE

1. Deciding on your target audience
2. Deciding on the topic of your scene
3. Research your topic
4. Writing your devised scene
5. Audience participation
6. Evaluation

Rhetoric

Core Text: important speeches by women

Rhetoric is the art of persuasion in speech, using the triad of ethos, pathos and logos to underpin its core elements.

Ethos relates to the ethical use of words in our speech - this could be what is the 'personality' that represents a group or idea; its main beliefs and values.

Pathos is the emotional appeal encouraging an audience to be pulled into either negative or positive thoughts.

Logos is the use of facts, logic and clear reasoning to steer people towards an idea.

Test yourself - cover the vocabulary words. Can you recall each term using the

definitions?

Practise spelling vocabulary words and matching definitions to words.



Vocabulary

- rhetoric
- agenda
- structure
- ethos
- logos
- pathos
- direct address
- asyndeton
- form
- allusion
- anecdote
- statistic
- anaphora
- antithesis

- A. The ethical use of words in our speech
- B. Use of words 'you' or 'we' to appeal to the audience/reader
- C. The use of facts, logic and clear reasoning to steer people towards an idea.
- D. A person or thing that is the direct opposite of someone or something else.
- E. The omission or absence of a conjunction between parts of a sentence, as in **I came, I saw, I conquered.**
- F. The structure, style and organization of a work, encompassing its overall genre and specific literary devices.
- G. The use of numbers to draw attention to the specificness of a fact e.g. 50%, one third, millions of, only three people attended.
- H. A literary device that is an indirect reference to a well-known person, place, event or another literary work.
- I. The art of effective or persuasive speaking or writing, especially the exploitation of figures of speech and other compositional techniques.
- J. The repetition of a word or phrase at the beginning of successive clauses.
- K. A plan of things to be done or problems to be addressed.
- L. A short story that supports the understanding of an idea being addressed in a piece of writing or in a speech.
- M. The emotional appeal encouraging an audience to be pulled into either negative or positive thoughts.
- N. The way a piece of writing is constructed or organized.

Check your answers:

A - Ethos	B - Direct Address	C - Logos	D - Antithesis	E - Asyndeton	F - Form	G - Statistics	H - Allusion
I - Rhetoric	J - Anaphora	K - Agenda	L - Anecdote	M - Pathos	N - Structure		

**Extract from Abraham Lincoln's
Gettysburg Address**

"Four score and seven years ago our fathers brought forth on this continent, a new nation, conceived in Liberty, and dedicated to the proposition that all men are created equal" (Lincoln, 1863)



Task 1 - In Abraham Lincoln's speech, see if you can identify which parts are ethos, pathos and logos.

Example A

You probably shouldn't litter, but it's not really that big of a deal if you do. Sure, trash might end up on the ground, but someone will probably clean it up eventually. The earth is pretty big, so a few wrappers or bottles won't make much difference. Besides, picking up litter can be tiring, and bins aren't always nearby. It's just one piece of garbage—how much harm could that really cause in the long run anyway?

Example B

Every year, **over 8 million tons of plastic** end up in our oceans—killing marine life and poisoning our food chain. **Can you imagine** beaches covered in trash instead of golden sand? Littering isn't just careless—it's devastating. **Take responsibility** and **choose** to protect our planet. **Think** of the turtles choking on plastic bags and the children growing up surrounded by waste. We created this problem, so **act now** to fix it. **Will you be part of the problem or the solution?**

ETHOS
USING CHARACTER, CREDIBILITY AND
ETHICS TO PERSUADE



PATHOS
USING EMOTIONS AND PASSION
TO PERSUADE



LOGOS
USING LOGICAL REASONING AND
EVIDENCE TO PERSUADE



**Extract from Churchill's speech titled
'This was their finest hour'**

Hitler knows that he will have to break us in this Island or lose the war. If we can stand up to him, all Europe may be free and the life of the world may move forward into broad, sunlit uplands. But if we fail, then the whole world, including the United States, including all that we have known and cared for, will sink into the abyss of a new Dark Age made more sinister, and perhaps more protracted, by the lights of perverted science.

Task 2 - In Churchill's speech (above), identify as many of examples as possible of the methods in the vocabulary list on the first page of this Knowledge Organiser.



Task 3 - Look at Example A then Example B.

Highlight the phrases in Example B that use examples of the methods in the vocabulary list on the first page.

Task 4 - It is easy to see that Example B is better. Pick out 3 of the methods that you identified in Task 3 and explain why these methods are effective in being persuasive to the target audience.

Task 5 - Write your own persuasive speech on pollution.

Year 8 KS3 Cooking and Nutrition: The Eatwell Guide Part 2 (Protein, Dairy and Fats & Oils)

Prior Learning / Context:

Prior learning includes introduction to the Eatwell Guide and the principles of healthy eating. Basic cooking skills, including knife skills and cooker safety, also completed.

Assessment:

- Retrieval Practice – quizzing, starter/plenary tasks
- Formal knowledge assessments – delivered in time with reporting
- Food preparation skills assessed after every practical (P, D, C, E)

Key Questions:

Why is it important to include fish into our diets? (2 marks)

Justify why protein is considered to be one of the nutrients essential for life (4 marks)

How do you know if milk has been produced to a high standard? (2 marks)

Preventing Food Poisoning (the 4Cs)



Key temperatures

Freeze -18C, Chill 0-5C, Danger Zone 5-63C, Cook 75C+



Dairy and Alternatives

- Products made from cows milk
- Good sources of protein and calcium
- Alternatives include soya milk and oat milk

Protein

- Products including meat, fish, egg & plant alternatives eg soya
- Needed for growth and repair.
- Some groups of people need more protein such as pregnant women.

Food Preparation Outcomes:



Future Learning:

- Year 9: Food Choice and cooking traditional dishes
- KS4: AQA GCSE in Food Preparation and Nutrition

Key Vocabulary

Recipe, Nutrition, Cross-Contamination, Food Poisoning, Pathogenic Bacteria, Protein, Amino acids, Saturated and unsaturated fats, Coagulation, Aeration, Coronary Heart Disease,

Themes:

- Nutrition and Health
- Food preparation
- Food safety
- Food provenance
- Food choice
- The science of cooking

Science of Cooking

- **Plasticity and shortening** – prevent gluten formation when making pastry
- **Denaturing** of proteins by heat, acid or mechanical means
- **Coagulation** – heating protein to set a mixture
- **Aeration** – role of fats and eggs

Year 9 – Food
Choice and
cooking
traditions

Protein

Meat, Poultry and Fish

Protein is one of the nutrients essential for life. It is needed for the growth and repair of our cells and for energy. Some groups of people need more protein than others, for example, children and pregnant women need more protein for growth.

Each protein molecule is made up of a combination of 20 amino acids. It is essential that we include certain amino acids in our diet because our bodies cannot make them. There are 8 essential amino acids for adults and 10 essential amino acids for children (the extra 2 are needed for growth).

Sources of protein that contain all of the essential amino acids are called High Biological Value (HBV) or complete proteins. Sources of protein that contain some of the essential amino acids are called Low Biological Value (LBV) or incomplete proteins.

HBV proteins are mainly from animal sources. LBV proteins are mainly from plant sources such as beans, nuts and seeds. When combining LBV proteins you can consume all the essential amino acids (LBV + LBV = HBV). An example of this is beans on toast. This is called protein complementation.

Poultry are birds that are reared for eating. Popular poultry includes chicken, duck, turkey and goose.

Fish can be divided into three types, white, oily and shellfish. Fish is high in protein and you should aim for at least 2 portions of fish every week, 1 of which should be oily, such as salmon or mackerel, because it is high in vitamins A and D.



Eggs and Dairy Foods

Eggs are nutritious – they're a source of protein, vitamin D, vitamin A, vitamin B2, vitamin B12, folate and iodine. Eggs can be enjoyed as part of a healthy, balanced diet, but it's best to cook them without adding salt or fat, for example boiled or poached.

Eggs are produced by laying hens. Hens can be housed in cages or barns to lay their eggs or they can be 'free range' and have access to the outdoors. The British Lion Code of Practice ensures that eggs are produced to high standards – look out for eggs that have the Red Lion stamp.

Milk and dairy products, such as cheese and yoghurt, are great sources of protein and calcium. They can form part of a healthy, balanced diet, especially if you go for lower fat and lower sugar options.

Milk is supplied by dairy cows but it is also available from sheep and goats. You can look out for the Red Tractor logo on dairy foods. This is a quality assurance scheme that informs consumers that milk has been produced to high standards by UK farms.

The milk you buy in the shops is heat-treated to 72C to destroy bacteria. This process is called pasteurisation. Fresh milk should be stored in the fridge and will last 5 days. Longer life milk is also available. Ultra-heat treatment milk (UHT) is heated to 135C and can be stored at room temperature for about 6 months. Some or all of the fat in milk can be removed to make a healthier version so full fat (blue packaging), semi-skimmed (green packaging) and skimmed (red packaging) varieties are widely available.



French

Y8 Spring Term Knowledge Organiser

Qu'est-ce que tu aimes à la télé	What do you like on TV
J'aime/J'adore...	I like/I love...
Je n'aime pas...	I don't like...
Je déteste...	I hate...
les comédies	comedies
les dessins animés	cartoons
les feuilletons	soaps
les séries (policières)	(police) series
les documentaires	documentaries
les infos	the news
les jeux (télévisés)	game shows
les émissions de...	...programmes
... sport	sports...
...cuisine	cooking...
... télé-réalité	reality TV...
...musique	music...
... science-fiction	science fiction...
Mon émission préférée c'est...	My favourite programme is...

Qui es ta célébrité préférée ?	Who is your favourite celebrity?
Ma célébrité préférée est...	My favourite celebrity is...
parce qu'il/elle est...	because he/she is...
parce qu'il/elle n'est pas...	because he/she isn't...
intelligent(e)	intelligent
arrogant(e)	arrogant
égoïste	selfish
drôle	funny
modeste	modest
généreux/généreuse	generous
travailleur/travailleuse	hard-working
beau/belle	good-looking
gentil/gentille	kind
Remember to make the adjective ending agree for masculine/feminine.	

La télé	TV
Je regarde la télé...	I watch TV...
le matin	in the morning
le soir	in the evening
le weekend	at the weekend
à la maison	at home
dans le bus	on the bus
chez mes a mis	at my friends' house
seul(e)	alone
avec ma famille	with my family
avec mes copains	with my friends
sur ma tablette/mon smartphone	on my tablet/smartphone
à la demande	on demand
C'est facile	It's easy
Ce n'est pas cher	It's not expensive

Question words	
You can form a range of questions by using a question word + <u>est-ce que</u> and the tu form of the verb :	
Quand <u>est-ce que</u> tu regardes la télé ?	When do you watch TV?
Où <u>est-ce que</u> tu regardes la télé ?	Where do you watch TV?
Avec qui <u>est-ce que</u> tu regardes la télé ?	With whom do you watch TV?
Qu' <u>est-ce que</u> tu regardes ?	What do you watch?
Comment <u>est-ce que</u> tu regardes la télé ?	How do you watch TV?

Unit 3: Les loisirs – Hobbies

Quels sont tes loisirs ?	What are your hobbies?
J'ai un smartphone	I have a smartphone
Je surfe/Je blogue/Je chatte	I surf/blog/chat
Je fais des achats en ligne	I shop online
Je crée des playlists	I create playlists
Je joue au foot	I play football
Je télécharge des chansons	I download songs
J'écoute de la musique	I listen to music
Je joue sur ma Xbox	I play on my Xbox
Je fais du vélo	I go cycling
Je lis des BD	I read comics
Je ne regarde jamais la télé	I never watch TV

Use time phrases such as: **souvent** (often), **parfois** (sometimes), **d'habitude** (usually), **tout le temps** (all the time) to make your work more interesting.

On va au ciné ?	Shall we go to the cinema?
Je vais au cinéma ce soir.	I'm going to the cinema this evening
Je vais voir...	I'm going to see...
une comédie	a comedy
un film d'animation	an animated film
un film romantique	a romantic film
un film d'action	an action film
un film de science-fiction	a sci-fi film
un film de super-héros	a superhero film
un film d'horreur	a horror film
Tu viens ?	Are you coming?
Oui, je veux bien !	Yes, I'd like to!
Désolé(e), je ne peux pas.	Sorry, I can't
Rendez-vous à quelle heure ?	When shall we meet?
Rendez vous chez moi à 19h	Meet at my house at 7pm

Negatives	
To make a sentence negative, wrap negative expressions around the verb:	
ne/n' + pas (not)	jamais (never)
rien (nothing/notanything)	
Je n'ai pas d'ordinateur	I do not have a computer
Je ne fais pas de sport	I do not do sport
Je ne joue jamais à des jeux vidéo	I never play video games
Je ne lis rien	I do not read anything
Je ne fais rien en ligne	I do nothing online

French

Y8 Spring Term Knowledge Organiser

Où habites-tu ?	Where do you live?
J'habite...	I live...
dans un (petit) village	in a (small) village
dans une (grande) ville	in a (large) town
à la campagne	in the countryside
à la montagne	in the mountains
au bord de la mer	by the seaside
en Angleterre	in England
en Suisse	in Switzerland
au Maroc	in Morocco
aux Antilles	in the French Caribbean

C'est comment ?	What's it like?
J'aime mon village	I like my village
Je n'aime pas ma ville	I don't like my town
C'est...	It is...
Ce n'est pas...	It isn't...
animé	lively
calme/tranquille	quiet/peaceful
ennuyeux	boring
joli	pretty
nul	rubbish
historique	historic
touristique	touristic
moche	ugly

Quel temps fait-il ?	What's the weather like?
Il fait beau	The weather's good
Il fait mauvais	The weather's bad
Il fait chaud	It's hot
Il fait froid	It's cold
Il y a du soleil	It's sunny
Il y a du vent	It's windy
Il y a du brouillard	It's foggy
Il y a des orages	It's stormy
Il neige	It snows/it's snowing
Il pleut	It rains/it's raining
En été	In summer
En hiver	In winter
En automne	In autumn
Au printemps	In spring

Qu'est-ce qu'on peut faire dans ta région ?	What can you do in your area?
Dans ma région on peut...	In my area you can...
manger des crêpes	eat crêpes/
Manger du fastfood	eat fast food
visiter les monuments	visit monuments
visiter des grottes	visit some caves
aller au marché	go to the market
aller au cinéma	go to the cinema
aller en ville	go into town
aller à la plage	go to the beach
faire les magasins	go shopping
faire les randonnées	go walking
faire du canoë-kayak	go canoeing
faire du ski	go skiing

Elle est comment, ta région ?	What's your area like?
Dans ma région...	In my region...
il y a des..	There are some...
il y a beaucoup de...	There's lots of...
il y a trop de...	There's too many...
il y a plein de...	There's plenty of...
il y a peu de...	There's not many of...
il n'y a pas de...	There isn't any...
lacs	lakes
touristes	tourists
champs	fields
plages	beaches
voitures	cars
montagnes	mountains
bâtiments	buildings
rivières	rivers
jardins publics	parks
distractions pour les jeunes	things for young people to do
magasins	shops
forêts	forests

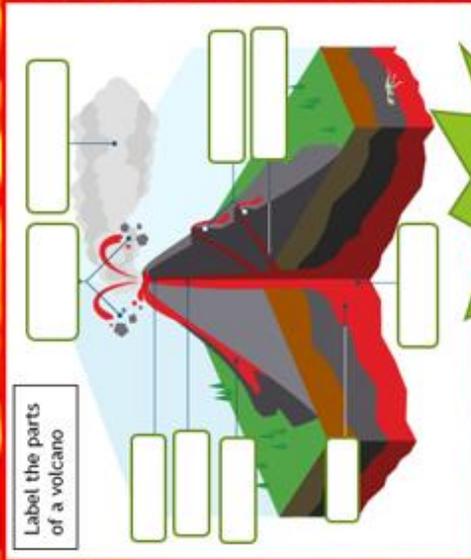
Unit 4: Ma région – My area

The verb POUVOIR (To be able to)	
The verb POUVOIR is an irregular modal verb. It is usually followed by an infinitive :	
<i>On peut aller au cinéma</i> – You can go to the cinema	
Je peux	I can
Tu peux	You can
Il/Elle/On peut	He/She/We can
Nous pouvons	We can
Vous pouvez	You (pl). can
Ils/Elles peuvent	They can
The verb DEVOIR (To have to/must)	
The verb DEVOIR is an irregular modal verb. It is usually followed by an infinitive :	
<i>Je dois laver la voiture</i> – I have to wash the car	
Je dois	I have to
Tu dois	You have to
Il/Elle/On doit	He/She/We have to
Nous devons	We have to
Vous devez	You (pl). have to
Ils/Elles doivent	They have to
Qu'est-ce que tu dois faire à la maison	
Je dois...	I have to...
Ma sœur/Mon frère doit...	My sister/brother has to...
laver la voiture	wash the car
ranger ma chambre	tidy my room
nourrir les animaux	feed the animals
faire la cuisine	do the cooking
faire la vaisselle	wash the dishes
garder le bébé	look after the baby
faire la lessive	do the washing
sortir la poubelle	take the rubbish out
passer l'aspirateur	do the vacuuming
promener le chien	walk the dog

Year 8 Geography: Plate Tectonics

Why is Alfred Wegener a geography legend?

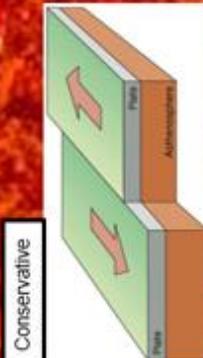
In this space draw a labelled diagram to revise:
The Structure of the Earth



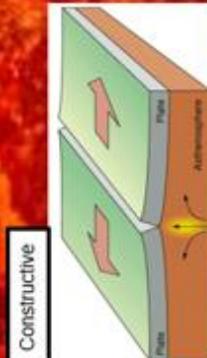
Volcanic Hazards	Definition
Lahars	Volcanic mudslide
Pyroclastic Flow	Super-heated explosion
Flooding	Glacier melt or river overflow
Ash Clouds	Dense ash plumes
Volcanic Bombs	Flying molten rock
Lava Flow	Vast river of hot lava

What are convection currents?

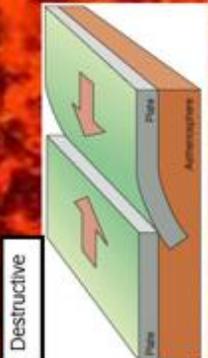
Types of volcano



Conservative



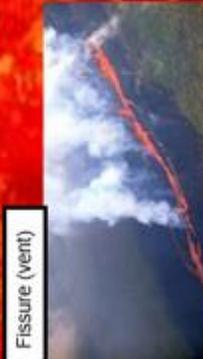
Constructive



Destructive

What is plate tectonic theory?

Types of plate margin



Fissure (vent)



Shield



Composite (layers)

Key ideas

Earthquakes and volcanoes are primarily found at **plate boundaries**. The plates are like giant rafts that **slowly move** around. At the constructive and destructive margins, **molten magma** is able to force its way to the surface and escape as **lava**.

An **earthquake** is a **sudden shockwave** caused by rocks being under stress from the movements of plates at plate boundaries. Eventually the stress in the rock builds up enough to deform and reach breaking point. At that point, the stored up energy is released in the form of **shockwaves**.

Unlike earthquakes, volcanoes can also have a positive impact on an area. Examples include income from **tourism**, **geothermal energy** and **fertile soil for agriculture**.

What is a tsunami?
How is it linked to tectonic hazards?

Year 8 Geography: Population

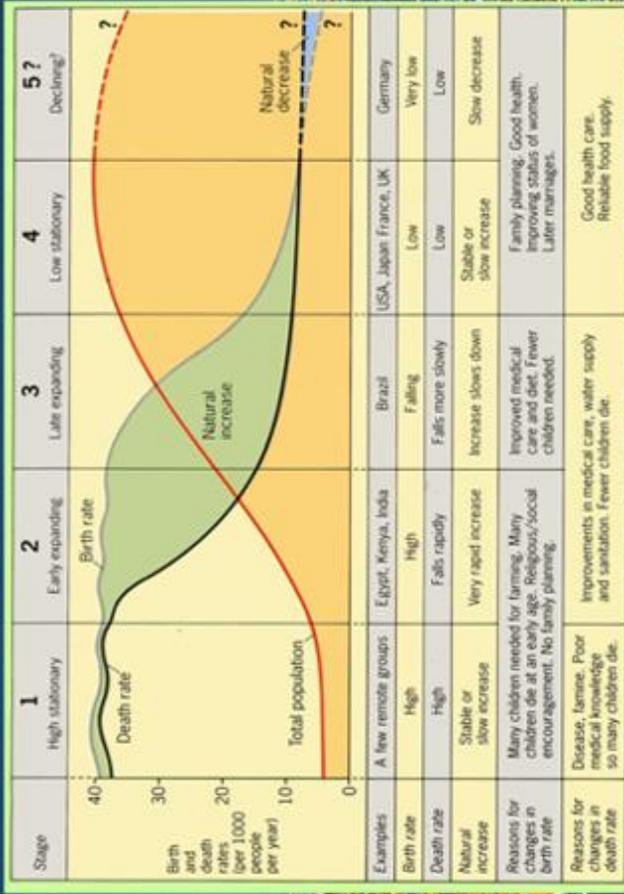
Key Term	Definition
Population	The number of people in a specific area - China has the highest population in the world.
Megacity	A city with a population over 10 million - Tokyo has close to 40 million people, London is <u>NOT</u> a megacity.
Population Pyramid	A bar graph showing the number of people in each age bracket.
Birth Rate	The number of babies born every year per 1000 people in a population.
Death Rate	The number of deaths that occur every year per 1000 people in a population.
Rural to Urban Migration	People move from villages (rural areas) to cities (urban areas) to live and work there.
Pull Factors	Something that attracts people to a city such as cinemas or jobs.
Push Factors	Something that makes villages unattractive for people, such as flooding.
Quality of Life	How happy people are about their lives, related to people's wellbeing.
Ageing Population	A population of an area where the % of older people increases comparing to other age groups.

Prior learning:

1. Define migration and population density. (Term 1 in Year 7)
2. What is the difference between sparsely and densely populated areas? (Term 1 in Year 7)
3. What is used on a choropleth map to show information? (Term 1 in Year 7)

Key tasks:

1. Mark the countries from the DTM model (top right corner on this page) onto the outline map.
2. Describe the location of Japan in the world. (Remember to use compass directions and write the continent, nearby ocean and neighbouring countries)



World map



Y8 German – Spring Term 1

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

Was isst du zum Frühstück?	What do you eat for breakfast?
Ich esse einen Joghurt	<i>I eat a yoghurt</i>
ein Brötchen mit Butter und Marmelade	<i>a roll with butter and jam</i>
Ich esse kein Frühstück	<i>I don't eat any breakfast</i>

Die Speisekarte	Menu
(der) Fisch mit Reis und Erbsen	<i>fish with rice and peas</i>
(der) Flammkuchen mit Sauerkraut	<i>Flammkuchen with pickled cabbage</i>
(die) Bratwurst mit Eiern	<i>fried sausage with eggs</i>
(die) Gemüsesuppe mit Brötchen	<i>vegetable soup with a roll</i>
(das) Hähnchen mit Pommes und Karotten	<i>chicken with chips and carrots</i>
(das) Schnitzel mit Kartoffeln	<i>pork fillet in breadcrumbs with potatoes</i>

Die Mahlzeiten	Mealtimes
die Vorspeise	<i>the starter</i>
die Hauptspeise	<i>the main</i>
die Nachspeise	<i>dessert</i>

Wie ist das?	What is it like?
süß	<i>sweet</i> lecker <i>delicious</i>
sauer	<i>sour</i> köstlich <i>tasty</i>
salzig	<i>salty</i> gesund <i>healthy</i>
scharf	<i>spicy</i> ungesund <i>unhealthy</i>
vegetarisch	<i>vegetarian</i>
ekelhaft	<i>disgusting</i>

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

Mein Lieblings sandwich	My favourite sandwich
das Ketchup	<i>ketchup</i>
der Senf	<i>mustard</i>
der Thunfisch	<i>tuna fish</i>
die Erdnussbutter	<i>peanut butter</i>
die Gurke(n)	<i>gherkin(s)</i>
die Mayo	<i>mayonnaise</i>
die Olive(n)	<i>olive(s)</i>
der Käse	<i>cheese</i>

Gesund bleiben	Staying healthy
man muss...	<i>One / you / people must...</i>
acht Stunden schlafen	<i>sleep for eight hours</i>
wenig Fett und Zucker essen	<i>eat little fat and sugar</i>
viel Obst und Gemüse essen	<i>eat lots of fruit and vegetables</i>
mehr Wasser trinken	<i>drink more water</i>
früh ins Bett gehen	<i>go to bed early</i>
drei Stunden trainieren	<i>exercise for three hours</i>

The present tense – Irregular verbs

essen – to eat e - i		
ich	esse	I eat
du	isst	you eat (singular)
er/sie/es	isst	he/she/it eats
wir	essen	we eat
ihr	esst	you eat (plural)
sie	essen	they eat
Sie	essen	you eat (polite)

nehmen – to take (to have) e - i	
ich nehme	I take
du nimmst	You take (singular)
er/sie/es nimmt	He/she/it takes
Wir nehmen	We take
ihr nehmt	You take (plural)
sie nehmen	They take
Sie nehmen	You take (polite)

Independent Task: Design your own menu for a German Restaurant.

Y8 German – Spring Term 2

In der Jugendherberge

die Hausordnung

Man muss vor 22:00 Uhr ins Bett gehen.

Man muss das Bett machen.

Man muss das Zimmer sauber halten.

Man muss vor acht Uhr aufstehen.

Man muss abwaschen.

Man darf nicht rauchen.

Man darf nicht im Zimmer essen.

Man darf keine laute Musik hören.

In the youth hostel

rules of the house

You have to go to bed before ten o'clock.

You have to make the bed.

You have to keep the room clean.

You have to get up before eight o'clock.

You have to wash up.

You must not smoke.

You must not eat in the room.

Der Tagesablauf

Daily routine

Ich stehe auf.

I get up.

Ich wasche

I get washed

Ich dusche mich.

I shower

Ich ziehe mich an.

I get dressed.

Ich frühstücke.

I have breakfast.

Ich gehe aus.

I go out.

Ich komme zurück.

I come back.

Ich esse zu Abend.

I have dinner.

Ich gehe ins Bett.

I go to bed.

Um wie viel Uhr?

At what time?

um ... Uhr

at ... o'clock

um fünf / zehn / zwanzig / nach...

at five / ten / twenty past...

um fünfundzwanzig vor...

at twenty-five to...

um Viertel nach ...

at quarter past

um Viertel vor...

at quarter to

um halb acht

at half past seven

Wie komme ich zum / zur ...?

How do I get to the ...?

Geh / Geht / Gehen Sie ...!

Go ...!

(nach) links

(to the) left

(nach) rechts

(to the) right

geradeaus

straight on

Nimm / Nehmt / Nehmen Sie ...!

Take ...!

die erste Straße links

the first street on the left

die zweite Straße rechts

the second street on the right

Geh an der Ampel links!

Go left at the traffic lights.

Geh an der Kreuzung rechts!

Go right at the crossroads.

der Bahnhof

station

der Park

park

die Bushaltestelle

bus stop

die Kirche

church

das Schwimmbad

swimming pool

das Hallenbad

indoor swimming pool

das Museum

museum

der Markt

market (place)

der Lehrer

teacher (male)

die Lehrerin

teacher (female)

das Souvenirgeschäft

souvenir shop

die Imbissstube

snack bar

das Eiscafé

ice cream parlour

vor dem / der...

in front of the ...

Entschuldigung / Bitte, ...

Excuse me, ...

Independent Task:
Make a comic strip
of your daily routine

History

Chronology

1750	Considered to be the start of the Industrial Revolution
1769	Spinning frame was invented. They were too big to use as home and factories were created.
1781	James Watt developed a new steam engine that could turn a wheel.
1804	Richard Trevithick shows his new invention the steam train.
1830	Liverpool to Manchester railway opened.
1833	Factory Act- Stopped children under 9 working in factories.
1833	Brunel opened the Great Western Railway
1876	Alexander Graham Bell invented the telephone.

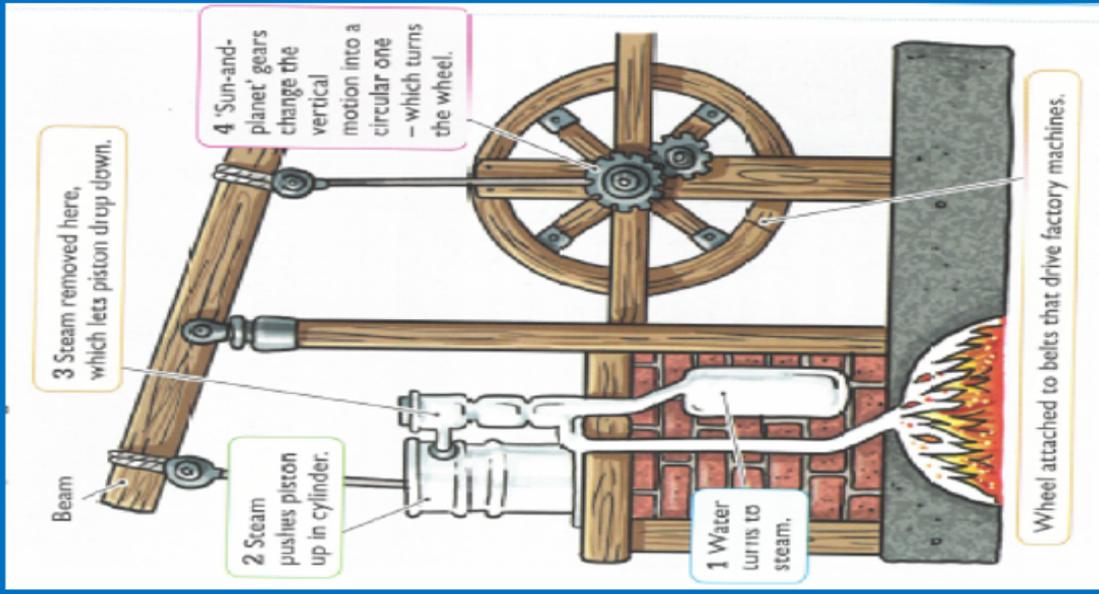
Key Words

Enclosure	Areas of land were divided up into fields owned by one person.
Revolution	A great change
Domestic system	Families working at home producing goods together.
Selective Breeding	Allowing the best animals to breed, so only the best characteristics of animals are passed on.
Mechanised	Machines are used rather than just people.
Pauper Apprentice	Children often orphans that were sent to work in factories by local authorities.
Coal	A hard black rock that burns for much longer than wood.
Canal	Long man made channels filled with water that could be used to transport heavy and fragile goods.
British Empire	A collection of countries and colonies (areas) that Britain controls around the world.
Entrepreneurs	People that could turn new ideas and inventions into money.

Key People

James Watt	Developed the steam engine so it could turn wheels, and power machines.
Richard Trevithick	Credited with inventing the steam train
George Stephenson	Inventor, who developed steam trains including the Rocket.
Ada Lovelace	Programmer of an adding machine. Viewed as the world's first computer programmer.
Isambard Kingdom Brunel	Inventor, designed railways, bridges, ships and communication cables from Britain to America.

Reasons for the industrial revolution, factories, transport and inventions.



Questions

- What was the industrial revolution?
- Why did the industrial revolution start in the UK?
- How did the invention of the steam engine change people's lives?

History

Chronology	
1749	The Bow Street Runners set up
1823	Prison Reform Act. Jailers were paid by the government not the prisoners. Male and female prisoners were kept separately.
1829	The Metropolitan Police Force set up.
1831	First major Cholera outbreak in Britain.
1842	Chadwick's report into conditions in towns and cities
1848	The public Health Act allowed councils to spend public money on cleaning up towns and cities.
1854	John Snow finds that Cholera was caused by contaminated drinking water.
1888	Jack the Ripper kills at least 5 women in Whitechapel London.

Definition

Key Words	Definition
Back to back houses	A housing system that was built around a courtyard where houses were built back to back.
Typhoid	Disease caused by contaminated water. Gives headaches, fever and diarrhoea.
Tuberculosis	Disease of the lungs, causes shortness of breath and chest pains
Cholera	Caused by contaminated water. Gives diarrhoea, makes people turn black and blue.
Classes	Divisions in society based on income, housing, family tradition and social life.
The watch	People in bigger towns that were paid to patrol the streets at night.
Magistrates	Volunteers that could question suspects in court and punish people for minor crimes. They would send more serious crimes to professional courts.
Constables	Unpaid volunteers who would organise the watch and help magistrates by catching criminals.
Capital offence	Crime that you could be executed for committing. Often by public hanging.
Transportation	Being sent overseas often to the USA or Australia after being convicted of committing a crime.
The Metropolitan Police	Police force set up in London.

Industrial revolution: Living and working conditions, disease, crime and punishment

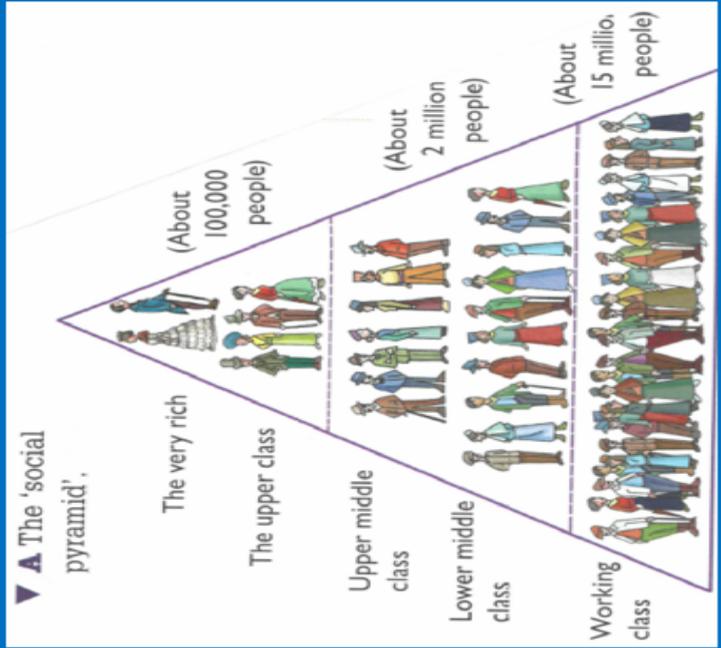
Key People	Role
Edwin Chadwick	Wrote a report about poor conditions in towns and cities, thought diseases were caused by bad air and deaths happen where there is polluted water.
John Snow	Made the link between contaminated water and Cholera.
Florence Nightingale	Led a team of nurses during the Crimean War, improved conditions for soldiers and then revolutionised nursing in Britain.
Robert Peel	Set up the Metropolitan Police Force
Elizabeth Fry	Prison reformer. She taught women and children in prison and campaigned for better conditions in prisons
Jack the Ripper	Serial killer in Whitechapel who was never convicted.

Questions

- What effect did the changes in living conditions have on people's health during the industrial revolution?
- Why did Britain need a police force during the industrial revolution?
- What can we learn from how disease was dealt with during the industrial revolution?

Books

- Hard Times by Charles Dickens
- Street Child by Berlie Doherty
- The Adventures of the New Cut Gang by Phillip Pullman

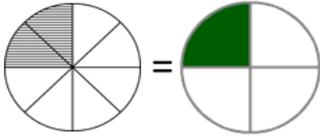


Year 8 Knowledge Organiser

RATIO

Key Concept

2 parts → $2:6$ ← 6 parts
 $=$
 $1:3$



$$\frac{2}{8} = \frac{1}{4}$$

Key Words

Ratio: Relationship between two numbers.

Part: This is the numeric value '1' of, would be equivalent to.

Simplify: Divide both parts of a ratio by the same number.

Equivalent: Equal in value.

Convert: Change from one form to another.

Examples

Simplify $60 : 40 : 100$

$\div 10$
 $6 : 4 : 10$
 $\div 2$
 $3 : 2 : 5$

This could have been done in one step by dividing by 20.

Write $2 : 5$ in the form $1 : n$

$\div 2$ $\left(\begin{array}{c} 2 : 5 \\ \hline 1 : 2.5 \end{array} \right) \div 2$

Share £45 in the ratio $2 : 7$

$$45 \div 9 = 5$$

£10 : £35

$2 : 7$

5	5
5	5
=10	5
	5
	5
	5
	5
	=35

Joy and Martin share money in the ratio $2 : 5$. Martin gets £18 more than Joy. How much do they each get?

$2 : 5$

6	6
6	6
	6
	6
	6
	=30

$18 \div 3 = 6$

£12 : £30

Sparx Maths

Clip Numbers

M885, M543, M525, M801

Tip

It's often useful to write the letters above the ratio. This helps you keep the order the correct way round.

Questions

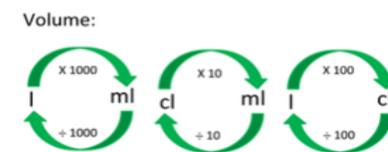
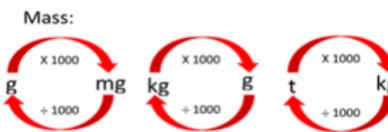
- Simplify a) $45 : 63$ b) $66 : 44$ c) $320 : 440$
- Write in the form $1 : n$ a) $5 : 10$ b) $4 : 6$ c) $x : x^2 + x$
- Share 64 in the ratio $3 : 5$ 4) Write the ratio $1 : 4$ as a fraction.

ANSWERS: 1) a) $5 : 7$ b) $3 : 2$ c) $8 : 11$ 2) a) $1 : 2$ b) $1 : 1.5$ c) $1 : x + 1$
 3) $24 : 40$ 4) $\frac{1}{5}$

Year 8 Knowledge Organiser

UNIT CONVERSION

Key Concepts



Speed = Distance \div Time

Distance = Speed \times Time

Time = Distance \div Speed



Key Words

Metric – mm, cm, m, km etc.

Imperial – pounds, stone, pints etc.

Length

Weight / Mass

Capacity

Examples

Convert 30cm to mm

$$30 \times 10 = 300\text{mm}$$

Convert 400mm to cm

$$400 \div 10 = 40\text{cm}$$

Convert 10 miles to km

$$\times 2 \left(\begin{array}{l} 5 \text{ miles} = 8\text{km} \\ 10 \text{ miles} = 16\text{km} \end{array} \right) \times 2$$

Speed = 4 mph

Time = 2 hours

Find the Distance.

$$D = S \times T$$

$$= 4 \times 2$$

$$= 8 \text{ miles}$$

Sparx Maths

Clip Numbers

M515, M530, M761, M774

Questions

- Convert a) 50cm to mm b) 3kg to g c) 3000 m to km
- Convert a) 5 gallons to litres b) 8.8 pounds to kg
- The distance travelled on a journey is 60 miles and it took 2 hours. How fast were they travelling?

ANSWERS: 1) a) 500mm b) 3000g c) 3km 2) a) 22.5litres b) 4kg 3) 30mph

Year 8

FOUR OPERATIONS WITH FRACTIONS

Key Concept

Mixed numbers

These are made up of a whole number and a fraction.

$$4\frac{3}{5}$$

$$= \frac{20}{5} + \frac{3}{5}$$

$$= \frac{23}{5}$$

An improper fraction

is when the numerator is larger than the denominator.

Key Words

 <p>Add Sum Total All together Plus In all</p>	 <p>Multiply Product Times Twice Total Multiplied by</p>
 <p>Subtract Remain Difference Less than Fewer How many more Minus</p>	 <p>Divide Quotient Goes into Split Equally Each</p>

A **reciprocal** is the value that when multiplied by another gives the answer of 1.

Eg. $\frac{1}{8}$ is the reciprocal of 8.
 $\frac{2}{5}$ is the reciprocal of $\frac{5}{2}$

Examples



$$\frac{3}{5} + \frac{2}{7}$$

Make the denominators the same

$$\frac{3}{5} + \frac{2}{7} = \frac{21}{35} + \frac{10}{35} = \frac{31}{35}$$



$$\frac{3}{5} - \frac{2}{7}$$

$$\frac{3}{5} - \frac{2}{7} = \frac{21}{35} - \frac{10}{35} = \frac{11}{35}$$



$$\frac{3}{5} \times \frac{2}{7}$$

Just multiply the tops and bottoms

$$= \frac{3 \times 2}{5 \times 7} = \frac{6}{35}$$



$$\frac{3}{5} \div \frac{2}{7}$$

Flip the second fraction and change to a times

$$\frac{3}{5} \times \frac{7}{2} = \frac{21}{10}$$

4 Rules Fractions

K
F
C

Sparx Maths

Clip Numbers

M157, M197, M110, M265

Tip

- To find equivalent fractions multiply/divide the numerator and denominator by the same number.

Questions

- 1) $\frac{2}{7} + \frac{5}{8}$ 2) $\frac{7}{9} - \frac{2}{5}$ 3) $\frac{3}{7} \times \frac{4}{9}$ 4) $\frac{3}{11} \div \frac{14}{22}$
 What is the reciprocal of: 5) $\frac{2}{3}$ 6) 9 7) 0.75

ANSWERS: 1) $\frac{51}{56}$ 2) $\frac{17}{45}$ 3) $\frac{4}{21}$ 4) $\frac{3}{7}$ 5) $\frac{3}{2}$ 6) $\frac{1}{9}$ 7) $\frac{4}{3}$

Year 8

4 OPERATIONS WITH MIXED NUMBERS

Key Concepts

An **improper fraction** is when the numerator is larger than the denominator e.g. $\frac{20}{12}$

Converting from a mixed number into an improper fraction:

$$2\frac{3}{5} = \frac{10}{5} + \frac{3}{5} = \frac{13}{5}$$

An **integer** is a whole number.

$$3 \times \frac{2}{7} = \frac{2}{7} + \frac{2}{7} + \frac{2}{7} = \frac{6}{7}$$

OR

$$3 \times \frac{2}{7} = \frac{3 \times 2}{7} = \frac{6}{7}$$

$$\frac{3}{5} \div 6 = \frac{3}{5} \times \frac{1}{6} = \frac{3}{30} = \frac{1}{10}$$

$$1\frac{2}{3} + 2\frac{1}{4}$$

$$= \frac{5}{3} + \frac{9}{4}$$

Convert into an improper fraction

$$= \frac{20}{12} + \frac{27}{12}$$

Find a common denominator

$$= \frac{47}{12}$$

$$= 3\frac{11}{12}$$

Convert back into a mixed number

$$2\frac{2}{3} - 1\frac{1}{4}$$

$$= \frac{8}{3} - \frac{5}{4}$$

$$= \frac{32}{12} - \frac{15}{12}$$

$$= \frac{17}{12}$$

$$= 1\frac{5}{12}$$

$$1\frac{1}{3} \times 2\frac{3}{4}$$

$$= \frac{4}{3} \times \frac{11}{4}$$

$$= \frac{44}{12}$$

$$= 3\frac{8}{12}$$

$$= 3\frac{2}{3}$$

$$2\frac{1}{3} \div 1\frac{3}{5}$$

$$= \frac{7}{3} \div \frac{8}{5}$$

Find the reciprocal of the second fraction...

$$= \frac{7}{3} \times \frac{5}{8}$$

...and multiply

$$= \frac{35}{24}$$

$$= 1\frac{11}{24}$$

Examples

Key Words

Fraction
Equivalent
Reciprocal
Numerator
Denominator
Improper/Top heavy
Mixed number

Calculate:

- 1) $1\frac{2}{3} + 2\frac{3}{4}$ 3) $3\frac{1}{5} \times 1\frac{2}{3}$ 5) $\frac{2}{5} \times 7$
 2) $3\frac{3}{4} - 1\frac{1}{3}$ 4) $1\frac{3}{5} \div 2\frac{7}{10}$ 6) $\frac{3}{5} \div 9$

ANSWERS A 1) $4\frac{5}{12}$ 2) $2\frac{5}{12}$ 3) $5\frac{1}{3}$ 4) $\frac{16}{27}$ 5) $\frac{14}{5} = 2\frac{4}{5}$ 6) $\frac{3}{45} = \frac{1}{15}$

Sparx Maths

Clip Numbers

M157, M197, M110, M265

YEAR 8— UNIT 2

THE BLUES

A Brief History

The Blues is considered to be the 'grandfather' of all modern pop music as nearly all genres can be traced directly back in some way. The roots of Blues Music can be traced back to the late nineteenth century in the Southern states of the USA such as Georgia and Texas. Unfortunately the slave trade was present in the USA still and these slaves sang to keep their spirits up. These songs had lyrics about the struggles they were having and how they had "The Blues".

The first blues recordings were actually made in the 1920s by Black women such as Mamie Smith, Ma Rainey, Ida Cox and Bessie Smith. Primarily these were not 'Blues singers' but they adopted the style backed by jazz bands. The Great Depression and both World Wars caused the Blues to spread as millions of Black Americans left the cities around the Mississippi to the South for places in the North such as Detroit, Chicago, Atlanta and Memphis. However it was in Chicago where the style really took hold, where a new wave of "Blues men" took the style to another level changing the tempo with a new 'upbeat' version with a larger, more jazz-style, band. This can be heard here with two different versions of the same song "Dust My Broom"; one by Robert Johnson in 1922 and the 'Chicago Version' recorded by Howlin' Wolf in 1966.

Prominent Blues Musical Features

- **The accompaniment** – Primarily traditional Blues music is a singer with a guitar, although later jazz bands were used to accompany.
- **The voice**, - often 'husky' with some use of 'Scat' singing and improvisation.
- **The lyrics** – As the title suggests "The Blues" has lyrics that tend to tell the story of hardship in some fashion, or lost love.
- **The background harmony used**—what is known as the "12-bar Blues"—chord progression with a walking bass.

Rhythm in Music
Note Values—UK

Term	Symbol	Value
semibreve		4 beats
minim		2 beats
crotchet		1 beat
quaver		1/2 beat
pair of quavers		1/2 + 1/2 = 1
semiquaver		1/4 beat
joined semiquavers		1/4 + 1/4 + 1/4 + 1/4 = 1

Rhythm in Music
Rest Values—UK

Term	Symbol	Value
semibreve rest		4 beats of silence
minim rest		2 beats of silence
crotchet rest		1 beat of silence
quaver rest		1/2 beat of silence
semiquaver rest		1/4 beat of silence



YEAR 8— UNIT 2 THE BLUES

Prominent Blues Artists



'Blind' Lemon Jefferson
1893-1929



Robert Johnson
1911-1938



Bessie Smith
1894-1937



Howlin' Wolf
1910-1976



John Lee Hooker
1917-2001

The 12-bar Blues

The Blues have a very distinctive chord pattern consisting of a repeating 12-bar chord sequence.

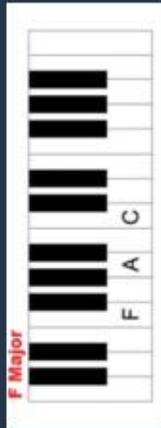
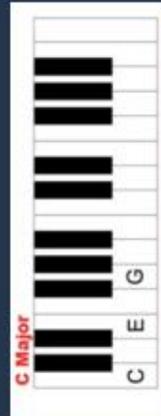
This sequence only uses the chords I, IV and V and lasts 12 musical bars, hence the term "The 12-Bar Blues"

C ^(I)	C ^(I)	C ^(I)	C ^(I)
F ^(IV)	F ^(IV)	F ^(IV)	F ^(IV)
G ^(V)	F ^(IV)	C ^(I)	C ^(I)

Walking Bass

Under the 12-Bar Blues Pattern the bass line often keeps a steady 'walking-pace' beat with the melodic pattern rising and falling almost symmetrically.

This constant speed gives the meaning and style to what is known as a "Walking Bass"



WIDER LISTENING

Here are some links to pieces that will extend your knowledge of Blues Artists. Please listen to these at home, perhaps with your parents and family.

- ROBERT JOHNSON: "Walkin' Blues" - <https://youtu.be/6e1u0sid39Y?si=vjwRmtQc-zrHtND>
- BESSIE SMITH: "St. Louis Blues" - https://youtu.be/5B03f_9hLkQ?si=6RtOnf7QV3C1y0pL
- BB KING "Nobody Loves Me But My Mother" - <https://youtu.be/xRoh6fkbES0?si=dhekatPjrKHQx8q>
- MARCUS KING BAND: "Goodbye Carolina" (Blues fusion) - <https://youtu.be/jGtLroJUh8o?si=mXXSay2l9R51gX10>

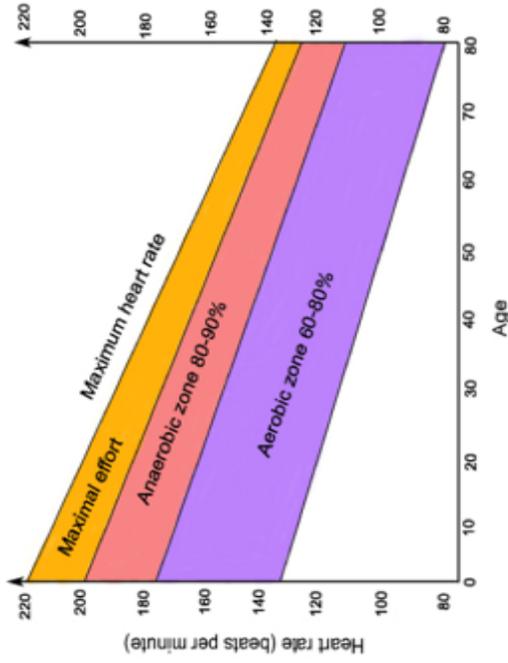


8.3 KS3 Core PE Knowledge Organiser: Exercise Intensity

Key Terms

Key Term	Definition
Heart Rate (HR)	The number of heart beats per minute , measured in beats per minute .
Resting Heart Rate (RHR)	The number of heart beats per minute (at rest) , measured in beats per minute .
Maximum Heart Rate (MHR)	The maximum number of beats your heart can beat per minute . This is measured in beats per minute. This is calculated as 220 - age.
Recovery Heart Rate	The fitter you are, the faster the recovery of your heart rate. Your heart rate drops most sharply in the first minute after you stop exercising; it should then fall about 20 beats a minute —a drop of less than 12 beats a minute is considered abnormal.

Training Zones



Calculate - Requires computation in relation to fitness data

Worked example: Calculate the aerobic target zone for a 20 year old athlete.

First you need to calculate the athlete's maximum heart rate which would be $220 - 20 = 200$ bpm (1). The aerobic target zone is 60-80% of the MHR (1). 60% of 200 is 120, 80% is 160. (1). So the athlete's aerobic target zone would be between 120 and 160 bpm. If they were in this range they would be working aerobically (1) working on their endurance (1).

Your Turn: Try these questions

- 1) Define the term heart rate.
- 2) How would you develop muscular strength?
- 3) How would you determine that an athlete had stopped exercising? What is this called?

Key Vocabulary

Aerobic, anaerobic, heart rate, resting, recovery, weight, repetitions, maximum, maximal, component, stimulus, voluntary, joints, static

Training Thresholds

Key Term	Definition
Aerobic Training	60-80% of your maximum heart rate.
Anaerobic Training	80-90% of your maximum heart rate.
Muscular Endurance	Low Weight Vs High Repetitions & Sets
Muscular Strength	High Weight Vs Low Repetitions & Sets

Misconceptions

- Heart rate zones need to be calculated using maximum HR (220-age)
- Aerobic involves using oxygen and is used for longer duration events working on endurance.
- Anaerobic is without oxygen and is used for shorter duration higher intensity using strength and power.
- Co-ordination can be more than just hand-eye, can be foot-eye or moving arm and legs at the same time.
- Speed can also refer to moving a body part – e.g. moving the arm to play a shot in table tennis.

8.4 KS3 Core PE Knowledge Organiser: Components of Fitness

State - Generally involves the recall of a fact

Components of Fitness		Worked Examples – For each component state an athlete that would use it and explain why.
Component	Definition	
Body Composition	A measure of the percentage of fat, muscle, bone, water and vital organs that make up your body weight.	Athletes require a suitable body composition for their sport. E.g.; a rugby player requires a larger proportion of muscle than a dancer as they need strength to make tackles .
Coordination	The ability to move two or more body parts together, accurately and smoothly.	Tennis players require excellent levels of coordination to be able to make contact with the ball and racket at the same time to perform accurate shots .
Power	The ability to combine strength with speed to perform a strong muscular contraction very quickly.	Long jumpers require great amounts of power to be able to push off the ground to propel themselves into the air in order to travel a long distance in their jump.
Reaction Time	The amount of time it takes you to respond to a stimulus.	Sprinters require a quick reaction time to be able to get out of their starting blocks as quickly as possible at the beginning of a race to give them a better chance of winning .
Speed	The rate at which your body, or part of your body, is able to perform a movement.	Rugby players , particularly wingers, require high levels of speed to be able to travel down the wing at a fast pace to be able to score a try .
Balance	Your ability to keep your body steady, both when in a static position and when moving.	Dancers require large amounts of balance to ensure that they maintain control when in a static position , such as standing on one leg . This will give them a better aesthetic score .
Agility	A measure of how quickly you can change the position of your body, while keeping your entire body under control.	Footballers require high levels of agility to be able to change direction at speed when running with the ball to get around their opponents to attack with a bigger threat.
Flexibility	The ability of your joints to move through their full range of movement.	Gymnasts require large amounts of flexibility to be able to move their joints through their full range of motion when performing moves and routines to a higher standard .
Muscular Endurance	A measure of the length of time your voluntary muscles can contract without getting tired. This can be repeated muscle contractions, or one contraction held for a long period of time.	Boxers require good muscular endurance to be able to repeatedly contract their muscles when throwing punches many times without getting tired to try enforce a knockout
Strength	The amount of force a muscle can generate when it contracts to overcome resistance.	Powerlifters require excellent muscular strength to be able to generate large amounts of force when lifting heavy weights .
Cardiovascular Fitness	A measure of how efficiently your body can deliver oxygen and nutrients, such as glucose, to your working muscles during exercise, and also carry away waste products.	Marathon runners require excellent cardiovascular fitness to be able to use the whole body to run for the entire duration of the race without getting tired .

Your Turn: Try these questions

1) Define the term flexibility. 2) State 2 sports that would require power. 3) Explain the importance of agility and speed for a 100m sprinter.

Explain - Requires a justification/exemplification of a point. The answer must contain some linked reasoning

Religious Studies: War and Peace

Key Word	Definition
War	Fighting between groups to resolve issues.
Civil War	War within a country.
Peace	An absence of conflict.
Pacifism	Refusing to take part in war/violence.
Just War	A war that is seen as justified, necessary and fair.
Holy War	Fighting for a religious cause.
Jihad	Striving against evil for the sake of Allah.
Greater Jihad	A personal, internal struggle against the devil.
Lesser Jihad	An outward struggle to defend Islam/Muslims.
Thomas Aquinas	Christian thinker, drew up Just War principles.
Terrorism	Unlawful use of violence to achieve a political goal.
Ahimsa	Non-violence/respect for life.

Key Quotes

In the Bible Jesus said 'Put away your sword' when he was arrested and one of his disciples tried to defend him. Jesus also said 'Blessed are the Peacemakers, they are children of God' but when he visited the Temple in Jerusalem he was angry at the money changers reacting with some violence.

In the Qur'an it says "Fight in the way of Allah against those who fight against you, but begin not hostilities. Lo! Allah loveth not aggressors."

Gandhi is said to have stated 'An eye for an eye makes the whole world blind.'

Key Questions

When do you think it is right to fight? In defence? To gain more power/land?

To make people listen to you? Is it ever right to kill?

Practice Task

'Religious people should just pray for change – they shouldn't be involved in actions.' Write a speech arguing for or against this statement.

Religious Studies: War and Peace

What are the causes of conflict?

Humans can always find something to argue over, arguments can develop into violence and, when you have different countries involved, into armed conflicts and war. Jealousy, fear, greed, a struggle for land are all causes of conflict – religion can be a cause but it is not the cause of all wars.



Just War and Christianity

In the early years of Christianity most Christians were probably pacifists, but as time passed and rulers became Christians there were times when fighting was seen as necessary, the lesser of two evils. Thomas Aquinas drew up a series of conditions for Just War, for example war should only be fought to promote the good and avoid evil and the methods used must be proportional to success. Many Christians still consider World War 2 to be an example of a Just War.



The Islamic Concept of Jihad

This is much misunderstood! Muslims talk about Greater Jihad and Lesser Jihad. The more important Greater Jihad does not involve weapons, it is a conflict every Muslim is involved in as they fight the devil within. If they are tempted to eat during Ramadan – fighting that temptation is Jihad. Lesser Jihad may involve weapons in a fight to defend Islam/Muslims but there are strict conditions which need to be met, for example it must be a last resort. Despite the claims of some, a terrorist attack does not meet the conditions for Jihad.

Pacifism

Some say violence is always wrong, no matter what the circumstances. Many Christians suggest Jesus was probably a pacifist. In the twentieth century Mohandas Gandhi, a Hindu, was one of the best known pacifists who showed that it is possible to change the world without resorting to violence. He campaigned against racism in South Africa and helped achieve Indian independence using non-violent protests methods and following the principle of ahimsa. Martin Luther King followed his example.

Terrorism

The twenty-first century has made us all aware of the evils of terrorism. September 11th 2001 was when planes were flown into the World Trade Centre causing the Twin Towers to collapse. In Europe London was targeted in 2007, and again in 2017. Paris suffered in 2015 and Brussels in 2016. Innocent people lost lives, and those of all faiths and of none have spoken out against terrorism.

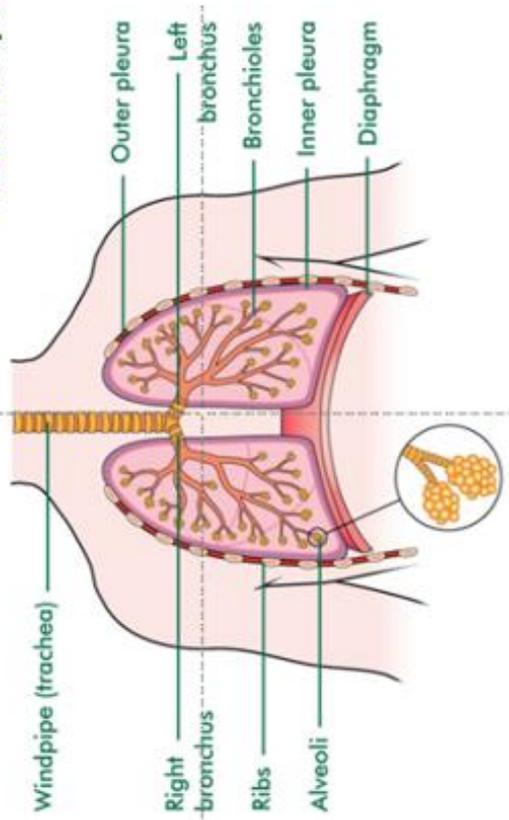
Sikhism



Sikhism is a religion that stresses the idea of equality, they believe that God the creator has made one humanity, no one is born better than anyone else and all religious traditions are valid. Sikhs have sometimes suffered violence from others, they value pacifism but most see war as sometimes justified.

The Lungs

Task: Explain what happens to the body during exercise.



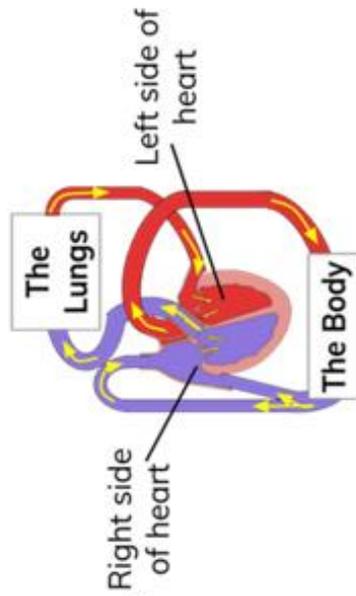
Year 8 Organ Systems Knowledge Organiser

DOUBLE CIRCULATORY SYSTEM.

Blood passes through the heart twice.

The right side pumps deoxygenated blood to the lungs.

The left side pumps oxygenated blood to the body



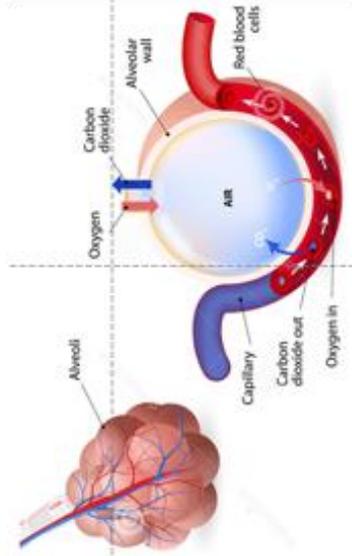
Gaseous exchange.

This is the movement of oxygen from the alveoli into the blood and carbon dioxide out of the blood and into the alveoli.

Alveoli:

- Give a large surface area
- Have a good blood supply
- Have very thin walls

This helps the gases move quickly by **diffusion**.



Respiration happens in every cell in the body.

Aerobic respiration:

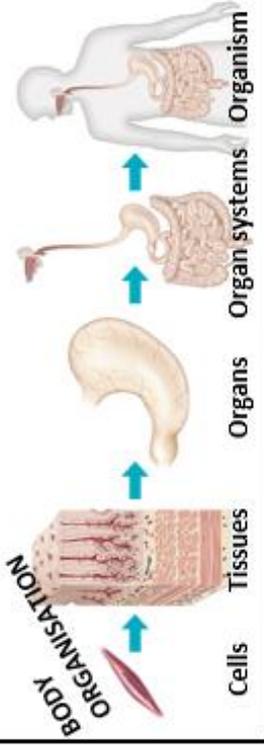
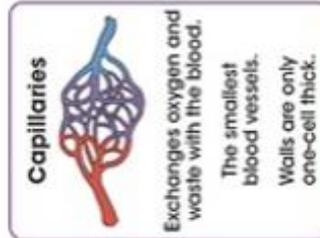
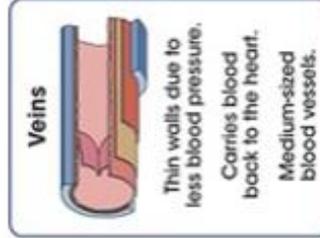
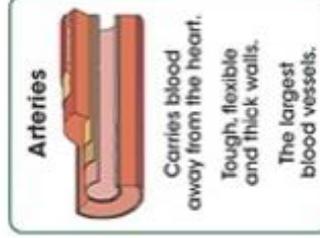
Oxygen + Glucose → Carbon dioxide + Water (energy released)

Anaerobic respiration happens when oxygen isn't available;

Glucose → Lactic acid (energy released)

CIRCULATORY SYSTEM

The circulatory system includes the heart, blood vessels and blood. The heart has a left & right atrium and a left & right ventricle



Digestion is the process by which food is broken down to be absorbed into the bloodstream and distributed around the body.

Mouth - physical breakdown of food (mechanical digestion)

Oesophagus - takes food to the stomach

Stomach - digestion of protein (chemical digestion)

The stomach also contains acid to help kill bacteria.

Liver - produces bile

Pancreas - produces enzymes and insulin

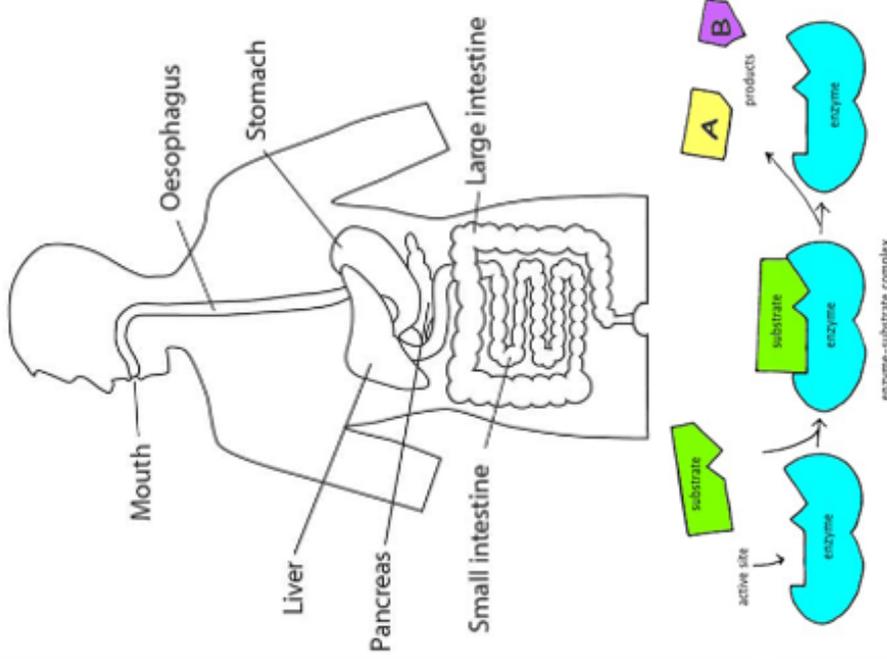
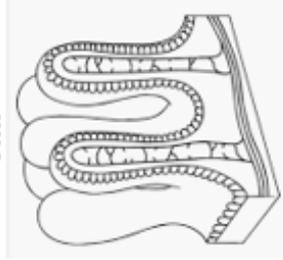
Small intestine - digestion of carbohydrates, fats and proteins (chemical digestion)

absorption of nutrients via villi

Large intestine - absorption of water

Villi are finger-like projections with a **large surface area** to aid absorption of nutrients into the blood

Villi



Enzymes

An enzyme breaks down large food molecules into smaller molecules

Lipases break down lipids and fats.

Proteases break down proteins.

Carbohydrases break down carbohydrates.

Food tests

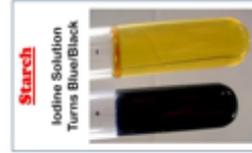
Starch; iodine solution turns black

Glucose; Benedicts, blue to orange

Protein; Biurets, blue to purple

Fats; ethanol, clear to cloudy

Task: Write a method for one of the food tests.



Tier 2

Digestion
Saliva
Absorbed
Stomach
Rectum anus
Bacteria
Microorganism
Model
Diffusion
Glucose
Aerobic
Respiration
Combustion
Breathing
Ventilation
Red Blood Cells
Blood Vessels

Tier 3

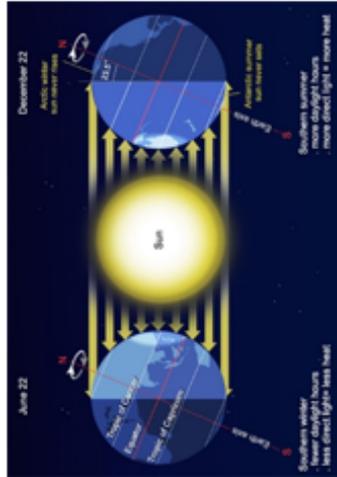
Salivary glands
Liver
Ingestion
Small intestines
Oesophagus
Faeces
Large intestine
Egestion
Enzyme
Catalyst
Plasma
Villi
Anaerobic
Capillaries
Lactic acid
Carbohydrates

Solar System



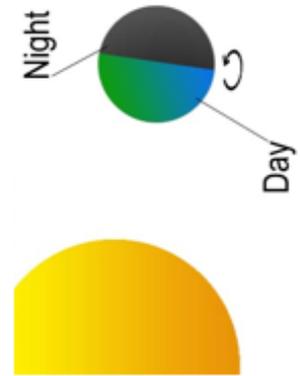
Seasons

We live in the Northern Hemisphere. In summer the Northern Hemisphere is tilted towards the sun. In winter it is tilted away from the sun. As shown in the diagram.



Day and Night

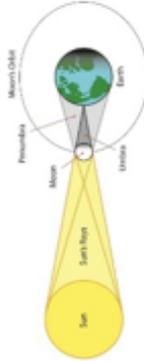
It takes 24 hours for the Earth to complete one rotation on its axis. As a result there are times that the UK is facing away from the sun (night) and there are times when the UK is facing towards the sun (day).



Satellites

A satellite is a body that orbits the earth or another planet. They can be artificial or natural. An artificial satellite is a man-made object in orbit, used for communication, media or navigation. The Moon is a natural satellite.

Solar eclipse

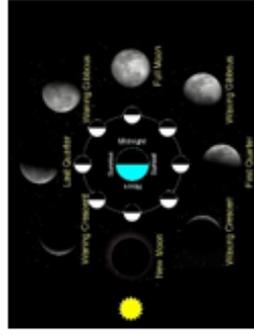


A solar eclipse occurs when a portion of the Earth is engulfed in a shadow cast by the Moon which fully or partially blocks sunlight. The part of the Earth in the umbra experiences a total eclipse and those in the penumbra see a partial eclipse.

Year 8 Topic 2 Physics Knowledge Organiser

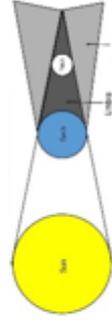
Phases of the moon

The moon takes 28 days to orbit the Earth. The moon is a natural satellite.



Lunar eclipse

A lunar eclipse occurs when the Moon passes directly behind Earth and into its shadow.



Tier 2 Vocabulary

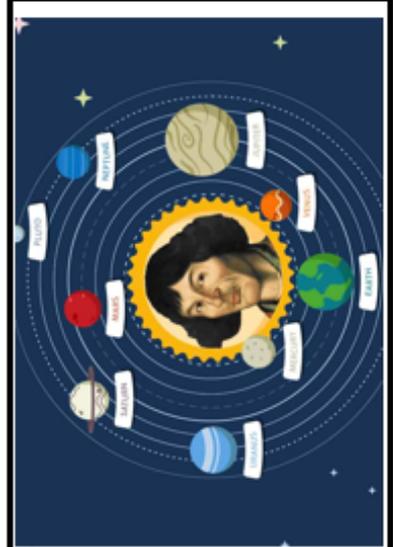
Sun
Star
Orbit
Planet
Earth
Moon
Seasons
Mass
Weight
Ellipse
Luminous
Universe

Tier 3 Vocabulary

Solar system
Satellite
Solar Eclipse
Lunar Eclipse
Asteroid
Comet
Meteor
Gravity
Constellation
Asterism
Exoplanet
Galaxy

Heliocentric Model

Model of the universe with the Sun at the centre. First proposed by Aristarchus of Samos in the 2nd century BC and later by Copernicus in the 16th century.



Life cycle of a Star

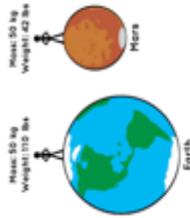
Task: Our sun is a star.
Research one of our sun's satellites.



Mass vs Weight

Mass – The amount of stuff you are made out of (Kg).

Weight – The force of gravity acting on that mass (weight = mass x gravity).



The man has the same mass because he is made of the same stuff. He has a different weight because gravity is much lower on the moon.

Exoplanets

Planets that orbit stars other than our Sun are called exoplanets. There are presently 5,246 confirmed exoplanets in 3,875 planetary systems.

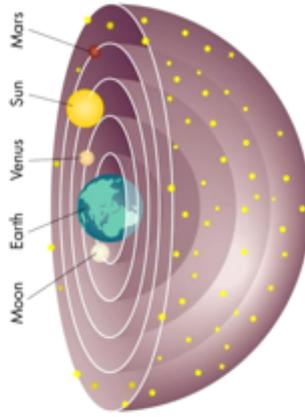
Constellations and Asterisms

A constellation is an officially designated area of the night sky. There are 88 constellations. An asterism is a group of stars that forms a recognisable pattern in the night sky.



Geocentric Model

Model of the universe with the Earth at the centre and the planets, Sun and stars moving around it. This model was proposed from around the 4th century BC by Ancient Greek philosophers including Plato and Aristotle.



Galaxy

A collection of dust, gas and stars. Galaxies can contain hundreds of billions of stars. Our Sun is in the Milky Way galaxy. The nearest galaxy to ours is Andromeda.

Spanish

Y8 Spring term Knowledge Organiser

Unit 3: La comida - Food

Key spellings	
Learn these spellings, they will be really useful for this unit and you will be tested on them.	
1. desayuno	for breakfast I eat...
2. cenó	for dinner I eat...
3. voy a tomar	I'm going to have...
4. voy a beber	I'm going to drink...
5. voy a comprar	I'm going to buy...

Key vocabulary and questions

¿Qué te gusta comer y beber?	What do you like to eat and drink?
Me gusta/No me gusta...	I like/don't like...
el agua	water
el arroz	rice
la carne	meat
la fruta	fruit
la leche	milk
el marisco	seafood
el pescado	fish
el queso	cheese
Me gustan/No me gustan...	I like/don't like (plural)
las verduras	vegetables
los caramelos	sweets
las hamburguesas	hamburgers
los huevos	eggs
porque es/son	because it is/they are
delicioso/a(s)	delicious
asqueroso/a(s)	disgusting
Can you use a dictionary to look up more of your favourite foods?	

¿Qué desayunas/comes/cenas?	What do you have for breakfast/lunch/dinner?
Desayuno...	For breakfast I have...
Como/Almuerzo...	For lunch I have...
Ceno...	For dinner I have...
cereales	cereal
tostadas	toast
café	coffee
yogur	yoghurt
té	tea
zumó (de naranja)	(orange) juice
un bocadillo	a sandwich
pollo con ensalada	chicken with salad
sopa	soup
patatas fritas	chips
helado de fresa	strawberry ice cream
Can you describe these Spanish foods and name some others? <i>churros, paella, tortilla española, Cola Cao.</i>	

En el restaurante – Role play	At the restaurant – Role play
¿Qué va a tomar	What are you going to have?
de primer plato	to start
de segundo plato	for a main course
de postre	for dessert
Voy a tomar...	I'm going to have...
¿Y para beber?	and to drink?
Voy a beber...	I'm going to drink...
¿Algo más?	Anything else?
No, nada más	No, nothing else
La cuenta, por favor	The bill, please
Tengo hambre	I'm hungry
Tengo sed	I'm thirsty
Look back at the example menu we saw in class, what would you order?	

En el mercado – Role play	At the market – Role play
¿Qué quiere?	It was...
Quiero comprar...	I want to buy...
cien gramos de tomates	100g tomatoes
doscientos gramos de uvas	200g grapes
trescientos gramos de pan	300g bread
medio kilo de pimientos rojos	0.5kg red peppers
un kilo de cebollas	1kg onions
dos kilos de manzanas	2kg apples
una botella de limonada	a bottle of lemonade
un paquete de tortillas	a packet of tortilla wraps
una lechuga	a lettuce
¿Cuánto es?	How much is it?
Son diez euros con veinte	It's 10€20
Can you remember all your numbers, including how to form numbers past 100? Practise them at home.	

Key grammar – The near future

Use the near future to talk about what is going to happen (I am going to eat, he is going to buy, we are going to dance)

This tense is formed by 3 parts, make sure you have all of them to use it correctly.

1. The present tense of IR (the verb to go)
2. 'a'
3. An infinitive verb (ending in -ar/-er/-ir)

1. The present tense of IR	2. 'a'	3. An infinitive verb
Voy	a	comer
Vas		bailar
Va		llevar
Vamos		cantar
Vais		comprar
Van		beber
		I am going to eat
		You are going to dance
		(S)he is going to wear
		We are going to sing
		You (pl.) are going to buy
		They are going to drink

Spanish

Y8 Spring term Knowledge Organiser

Key spellings	
Learn these spellings, they will be really useful for this unit and you will be tested on them.	
1. llevo	I wear
2. ¿Te gustaría?	Would you like to?
3. Me gustaría	I would like to
4. no puedo	I can't
5. tengo que	I have to

Key vocabulary and questions

¿Quieres salir? ¿Te gustaría ir...?	Do you want to go out? Would you like to go...?
al cine	to the cinema
al polideportivo	to the sports centre
al parque	to the park
al museo	to the museum
al centro comercial	to the shopping centre
a la bolera	to the bowling alley
a la playa	to the beach
a la pista de hielo	to the ice rink
a la cafetería	to the café
a mi casa	to my house

How do you know whether to use **al** or **a la** with the places above?

¿Cómo responderás?	How will you answer?
De acuerdo/Vale	All right/Okay
Muy bien	Very good
¡Genial!	Great!
¡Sí, me gustaría mucho	Yes, I would really like to
¡Ni hablar!	No way!
¡Ni en sueños!	In your dreams!
No tengo ganas	I don't want to
¡Qué aburrido!	How boring
Lo siento, no puedo	Sorry, I can't

Don't forget to use one of the excuses if you say you can't go.

Excusas	Excuses
Tengo que...	I have to...
lavarme el pelo	wash my hair
cuidar a mi hermano	look after my brother
hacer los deberes	do homework
ordenar mi dormitorio	tidy my room
pasear al perro	walk the dog
salir con mis padres	go out with my parents
No quiero	I don't want to
No tengo tiempo	I don't have time
No tengo dinero	I haven't any money

¿A qué hora?	At what time?
A las seis	At 6:00
A las ocho y diez	At 8:10
A las cinco y cuarto	At 5:15
A las tres y media	At 3:30
A las nueve menos cuarto	At 8:45
A las once menos veinte	At 10:40
A mediodía	At midday
A la una	At 1:00

You'll also need to say on what day. Can you remember all the days of the week?

¿Cómo te preparas?	How do you get ready?
Me baño	I bathe
Me ducho	I shower
Me lavo la cara	I wash my face
Me lavo los dientes	I brush my teeth
Me visto	I get dressed
Me maquillo	I put my makeup on
Me peino	I brush my hair
Me aliso el pelo	I straighten my hair
Me pongo gomina	I put gel in my hair

Use sequencers to talk about your routine: **primero, luego, después, finalmente...**

Unit 4: Las salidas - Outings

¿Dónde quedamos?	Where shall we meet?
delante de la cafetería	in front of the café
al lado del museo	next to the museum
enfrente de la bolera	in front of the bowling alley
detrás del polideportivo	behind the sports centre
en tu casa	at your house

Can you spot the rule for using **del** or **de la** here?

¿Qué vas a llevar?	What are you going to wear?
Normalmente llevo...	Normally I wear...
Voy a llevar...	I'm going to wear...
una camisa blanca	a white shirt
una camiseta naranja	an orange T-shirt
un jersey amarillo	a yellow jumper
una sudadera verde	a green hoodie
una falda rosa	a pink skirt
un vestido morado	a purple dress
una gorra gris	a grey cap
unos pantalones negros	some black trousers
unas botas marrones	some brown boots
unos vaqueros azules	some blue jeans
unos zapatos de muchos colores	some multicoloured shoes
unas zapatillas de deporte	some trainers

Remember that the adjective comes after the noun in Spanish and needs to have the correct ending (masc/fem/plural)

Key grammar – Reflexive verbs

Reflexive verbs are often used to describe an action you do to yourself. They work in the same way as other verbs, but have an extra **reflexive pronoun** that must be added. Don't forget to change the **ending of the verb** accordingly.

Lavarse	To wash oneself
Me lavo	I wash myself
Te lavas	You wash yourself
Se lava	S(he) washes her/himself
Nos lavamos	We wash ourselves
Os laváis	You (pl) wash yourselves
Se lavan	They wash themselves

Year 8 – Knowledge Organiser – Design & Technology – MATERIALS

Metals			
Type	Example of	Advantages	Disadvantages
Steel 	Ferrous (Contains iron)	Relatively cheap Widely available Strong/Tough	Rusts Requires a surface finish
Aluminium 	Non-Ferrous (Does not contain iron)	Does not rust Lightweight Easy to cut and shape	Relatively expensive
Copper 	Non-Ferrous (Does not contain iron)	Good conductor of heat and electricity	Corrodes Relatively expensive
Pewter 	Alloy (Mix of multiple metals)	Does not rust Low melting point for easy casting Polishes to a high shine	Relatively expensive Heavier than alternatives

Classification of Metal

Ferrous	<ul style="list-style-type: none"> • Contain iron • Magnetic (most) • Rust
Non-Ferrous	<ul style="list-style-type: none"> • Do NOT contain iron • Are NOT magnetic • Do NOT rust
Alloys	<ul style="list-style-type: none"> • Mixture of more than one element • Combining 2 metal improves properties

Timber			
Type	Example of	Advantages	Disadvantages
Pine 	Softwood	Cheaper More sustainable as faster growing Widely Available	Knotty Can be weaker than hardwoods Less durable
Oak 	Hardwood	Good aesthetic Extremely durable Easy to maintain High strength	Generally harder to cut and shape More expensive Less sustainable as slower growth rate
Beech 	Hardwood		
Plywood 	Manufactured Board	Available in large sheets Good strength and durability Can be laser cut	More expensive than other board options Edges can splinter

Specific Language and Terms

Durable	To be long lasting	Thermal	To be able to conduct or insulate heat
Malleable	To be bent and shaped	Electrical	To be able to conduct or insulate electricity
Strength	To withstand forces and breaking	Ductile	To be drawn into a wire (stretched)
Toughness	To not break or snap	Density	A measure of mass per unit volume
Hardness	To withstand scratching or denting	Absorbency	The ability to take in moisture

Health & Safety

Specific Language and Terms	
PPE	Personal protective equipment.
Hazard	A danger or a risk
BSI	British Standards Institute
Kitemark 	Assures consumers that the product is safe and has been tested by the BSI
CE mark 	Assures consumers that the product meets European safety standards

PPE Equipment	
Apron	To protect your clothing from soiling or from being caught in machinery/tools.
Goggles	Protect your eyes from dust particles or any other flying debris from machining.
Ear defenders	To protect your ears when using loud machinery.
Gauntlets	Protect your hands- particularly from heat when brazing or carrying out heat treatments.
Dust mask	To protect your breathing when working with dusty or hazardous materials.



Red: Prohibition Do Not - Stop
 Blue: Mandatory Must obey
 Yellow: Warning Risk of danger
 Green: Safety Means go

Hand tools:

Tools and equipment	
Try Square	Drawing a line at 90 degrees OR checking a corner is square (90 degrees)
Tennon Saw	Sawing straight lines in wood
Hack saw	Sawing straight cuts in metal
Flat File	Shaping or smoothing a piece metal or plastic.
Vice	Holds work still and secure when cutting, drilling, filing etc.

Walk safely and calmly around the classroom/ workshop.

Keep your work area and floor area clear – keep your belongings hung up

Follow the teacher's instructions for using equipment carefully.

Report all spillages & clean up properly after yourself.

Make sure that you are wearing the correct PPE equipment for tasks.

Return all equipment to the correct areas of the classroom/ workshop.

Machinery

Machinery					
Pillar Drill	A free standing machine that uses a motor to rotate a drill bit. This drill bit can then be used to cut holes in materials.		Vacuum former	A machine used to form sheet plastic into permanent objects using a mould.	
Disc Sander	Is used for shaping and finishing wood. It consists of an electric motor that turns a disk of sandpaper.		Hegner saw	A small electrical saw with a thin blade used to cut a variety of thin sheet materials	
Laser Cutter	A CAM machine that engraves and cuts through material using a high powered optical laser		Vinyl Cutter	A CAM machine that has a sharp blade to cut out designs on tin self-adhesive plastic	
Buffer/ Polisher	A machine that can be used to polish metal and plastics to a high shine.		3D Printer	A CAM machine that prints 3D models using this layers of plastic	

Specific Language and Terms

Machinery	Mechanical or electrical device designed to be used to perform a function.
CAD	Computer Aided Design
CAM	Computer Aided Manufacture
Software	The programs used by a computer

CAD / CAM

CAD- Computer Aided Design	
Advantages	Designs can be created, saved and edited easily, saving time
Disadvantages	CAD software is complex to learn
	Designs or part of designs can be easily copied or repeated
	Software can be very expensive
	Designs can be worked on by remote teams simultaneously
	Compatibility issues with software
	CAD is very accurate
	Work can be lost if not backed up
	Designs can be rendered to look-realistic to gather public opinion in a range of finishes.
CAM – Computer Aided Manufacture	
Advantages	Quick – speed of production can be increased
Disadvantages	Training is required to operate CAM
	Consistency and accuracy – All parts manufactured are all the same
	High initial outlay cost for machines
	Less mistakes- there is no human error unless pre programmed
	Loss of jobs for people
	Cost saving – workforce can be reduced
	Production stoppage – if the machines break down, the production would stop

CAD software programmes:



Creating Ideas and Drawing:



Freehand



Jack Straws



Biomimicry



Scruffiti



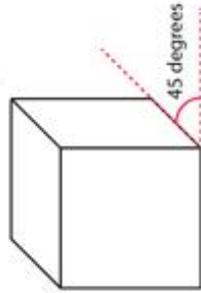
Geometric shapes



Annotation

Oblique Projection

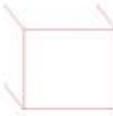
Opposite is a cube that has been drawn in Oblique projection.



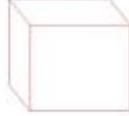
To draw it in oblique projection follow the three main steps below:



1. Draw the front or side view of the object

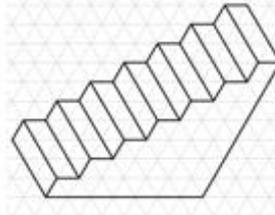


2. Project 45 degrees lines from each corner

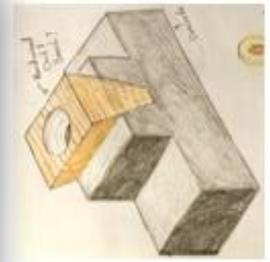
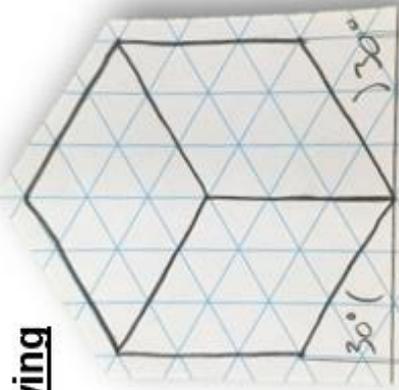


3. Draw the back two lines of the cube in position. Go round the outline of the cube with a fine black pen or dark, sharp pencil.

Isometric Drawing



These stairs have been drawn in isometric.



Isometric Rules:

1. 30 Degrees
2. Parallel lines
3. Drawing to scale
4. Drawing must show 3 sides of the object drawn

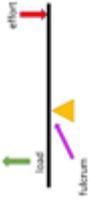
Specific Language and Terms

Oblique drawing	A projective drawing on an object in 3D where the front face is drawn flat and all other lines are projected at 45 degrees
Freehand sketching	Quick sketching without using a ruler. This is to be used to get your first thoughts for ideas down on paper
Creative ideas	Thinking outside the box. Different ways to get creative are to use techniques such as Jack straws, Geometric shapes, Scruffiti and Biomimicry.
Annotation	The notes you write around your ideas explaining what they show and how it could be made.
Isometric Drawing	An isometric drawing is a type of 3D drawing that is set out using 30-degree angles. It's a type of drawing in which the same scale is used for every axis, resulting in a non-distorted image.
Construction Lines	A lightly drawn line that allows you to construct a drawing, before committing the final shape to a darker line
Crating	The drawing of a crate (box) using construction lines that allow a drawing to be created to scale within it.

Specific Language and Terms

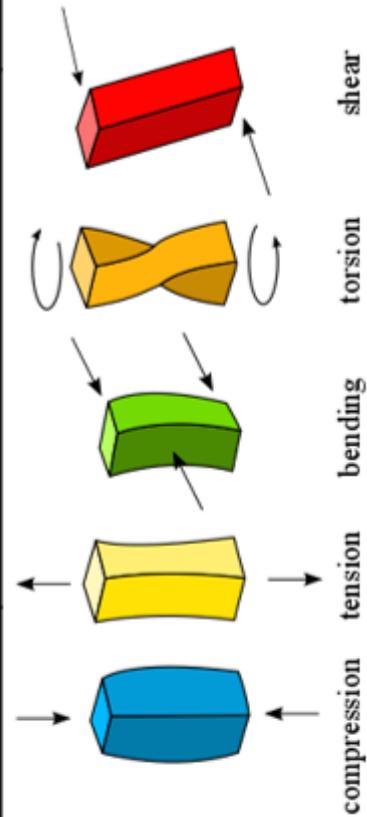
Mechanical system	A mechanical system is a set of physical components that convert an input motion and force into a desired output motion and force. Mechanical systems have at least three elements: input, process and output.
Mechanism	Is a device that transforms input forces and movement into a desired set of output forces and movement.
Machine	A system of mechanisms working together
Motion	A type of movement
Force	Is a push or pull in a certain direction that causes a change in speed, direction or shape.

Mechanisms

Mechanism	Definition	Example
Gears	Gears are toothed wheels (cogs) that lock together and turn one another. When one gear is turned the other turns as well.	
Pulleys	Pulleys are like gears, but the wheels do not lock together. The wheels are instead joined together by a drive belt. Pulleys can be used to affect the speed, direction or force of a movement.	
Levers	a rigid bar resting on a pivot, used to move a heavy or firmly fixed load with one end when pressure is applied to the other	

Forces

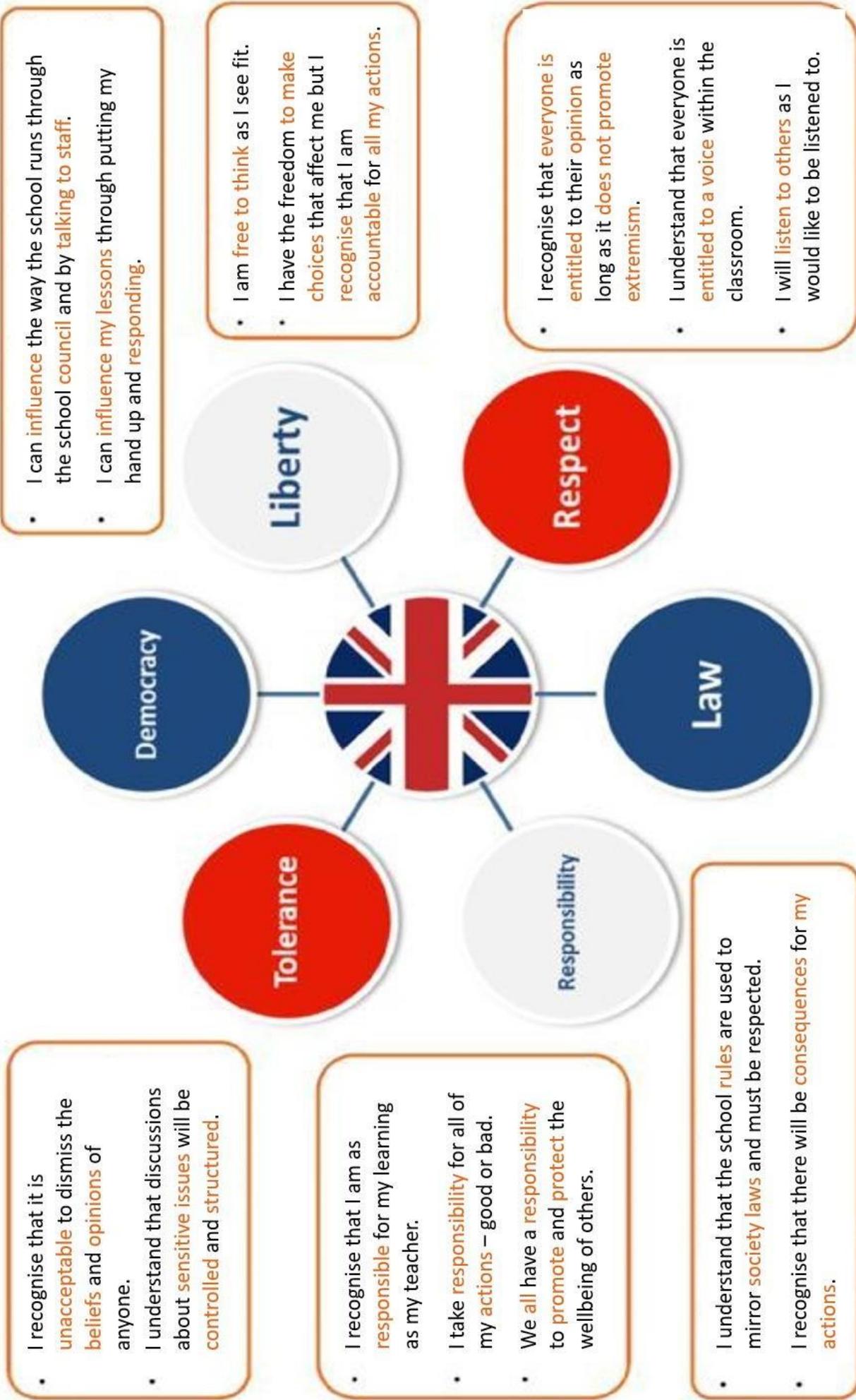
Force	Definition	Example
Compression	A pushing or squashing force	Mattress springs
Tension	A pulling or stretching force	Tug of war rope
Torsion	A twisting force	Turning a screw
Shear	A cutting force caused by two forces in opposite directions very close together	Scissors
Bending	When two forces act in opposite directions	Beam bridge



Types of Movement

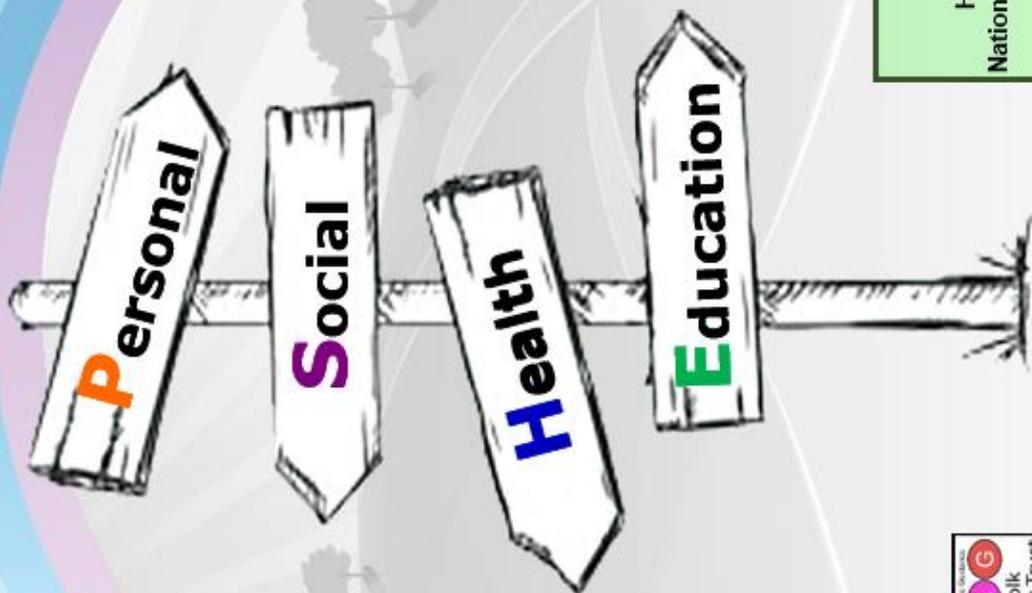
Motion	Definition	Example
Linear	Moves in one direction	Bike, car, train 
Oscillating	Swings back and forth	Pendulum, swing 
Reciprocal	Repetitive back and forth linear motion	Sewing machine needle 
Rotating	Moves in a circular motion	Car wheels, pedals 

Core British Values



YEAR 8

STAYING SAFE



Theme: E-safety, online safety and exploitation
Organisation: The National Crime Agency's CEOP Education team
Website: www.thinkuknow.co.uk

Theme: Online safety, E-safety and Cyber-bullying
Organisation: Child Net
Website: www.childnet.com/

Theme: Safety, support and abuse
Organisation: Childline
Phone: 0800 1111
Website: www.childline.org.uk

Theme: Crime
Organisation: Crime stoppers
Phone: 0800 555 111
Website: <https://crimestoppers-uk.org/>

Theme: Drugs, addiction and dependency
Organisation: FRANK (National Drugs Helpline)
Phone: 0300 123 6600
Website: www.talktofrank.com/

Theme: Support and help for runaways
Organisation: Runaway Helpline
Phone: 116000
Website: www.runawayhelpline.org.uk

Theme: Health
Organisation: Chat Health
Website: <https://chathealth.nhs.uk/>

Theme: Health, Wellness and Mental Health
Organisation: NHS
Phone: 111
Website: www.nhs.uk

Theme: Mental Health
Organisation: Kooth
Website: <https://www.kooth.com/>

Theme: Finance
Organisation: Barclays Life Skills
Website: <https://barclayslifeskills.com/young-people/>

Theme: Mental Health, Wellness and self-care
Organisation: Young Minds
Text line: 85258
Website: www.youngminds.org.uk

Theme: Healthy teen relationships
Organisation: Act on it
Phone: 01270 250 390
Website: www.actonitnow.org.uk

Theme: LGBTQI+
Organisation: Stonewall
Website: www.stonewall.org.uk

Theme: LGBTQ+ Equality
Organisation: Kite Trust (Camps)
Website: <https://thekitetrust.org.uk/>
Organisation: Norfolk LBGT+ Project
Phone: 01603 219299
Website: <https://norfolkigbtproject.org.uk/>

Protected Characteristics



Careers:

Unifrog - www.unifrog.org

Help you choose: <https://helpyouchoose.org/content/>

National Careers Service: <https://nationalcareers.service.gov.uk/>

I Can Be A: <https://www.icanbea.org.uk>



