

Year 8 Knowledge Organiser

**Spring Term
2021/22**

Name:

Form:

Core British Values

- I recognise that it is **unacceptable** to dismiss the **beliefs and opinions** of anyone.
- I understand that discussions about **sensitive issues** will be **controlled and structured**.

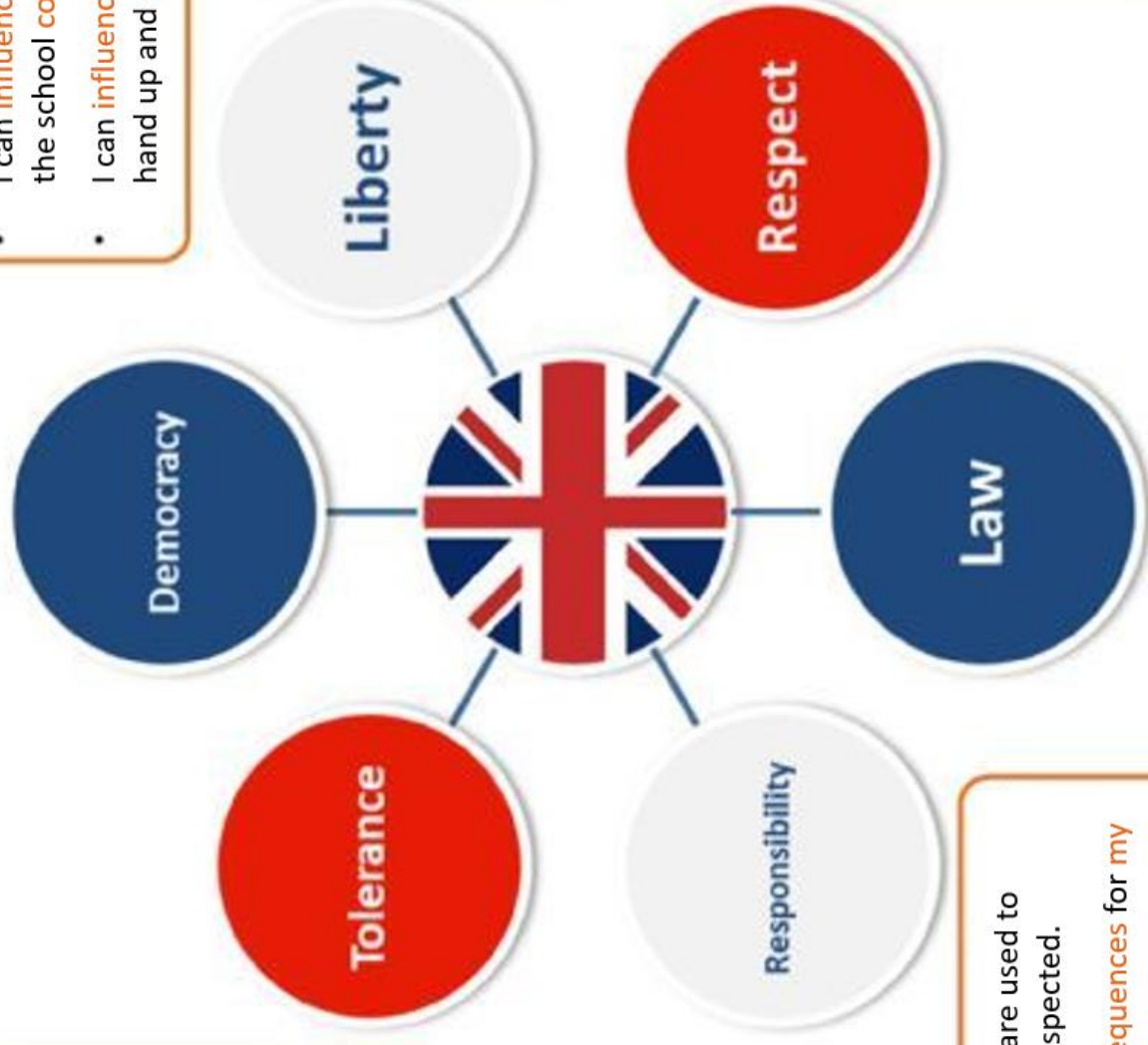
- I recognise that I am as **responsible** for my learning as my teacher.
- I take **responsibility** for all of my **actions** – good or bad.
- We all have a **responsibility** to **promote** and **protect** the wellbeing of others.

- I understand that the school **rules** are used to mirror **society laws** and must be respected.
- I recognise that there will be **consequences** for my **actions**.

- I can **influence** the way the school runs through the school **council** and by **talking to staff**.
- I can **influence my lessons** through putting my hand up and **responding**.

- I am **free to think** as I see fit.
- I have the freedom **to make** choices that affect me but I recognise that I am **accountable** for **all my actions**.

- I recognise that **everyone** is **entitled** to their **opinion** as long as it **does not promote extremism**.
- I understand that **everyone** is **entitled to a voice** within the classroom.
- I will **listen to others** as I would like to be listened to.



Social - Moral - Spiritual - Cultural



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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 6 and 7 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 8 and 9.

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 in your lessons and through quizzes on Show My Homework.

Self- testing

You can use your Knowledge Organiser in a number of different ways but you should not just copy from the organiser. Use the following tips and guidance to help you get the most out of learning and revising your subject knowledge.

These are some possible tasks you could try:

- Ask someone to write questions for you
- Write your own challenging questions, leave them overnight and try answering them the next day
- Create mind maps
- Create flash cards
- Put the key words into new sentences
- Look, write, cover and check
- Write a mnemonic
- Use the 'clock' template to divide the information into smaller sections
- Give yourself a spelling test
- Give yourself a definition test
- Draw images and annotate/label them with extra information
- Do further research on the topic
- Create fact files
- Create flowcharts
- Draw diagrams

How to make the most of your knowledge organiser

Questions/Answers, Answers/Questions

Ask a parent, carer, study partner to write you questions (or answers) and then you write the answer (or possible question that would respond to that answer). You can also write your own questions but if you do this leave it until the next day before you answer them to see what you can remember after a break.

Always remember to check and correct

Flashcards

These are a very good and simple self-testing tool. To make your own, take some card and cut into rectangles roughly 10cm x 6cm. Write the key word on one side and the definition on the other. Then go through your cards looking at one side and seeing if you can remember the keyword/definition on the other side.

The Learning Scientists

As a trust, we have always been keen to find out more about how we learn and how we can support our students in their learning.

The Learning Scientists are a group of cognitive psychological scientists interested in research on education. Their main research focus is on the science of learning. (Hence, “The Learning Scientists”!)

Through decades of research, they have identified and developed six key learning strategies, which are explained over the next few pages. These are the main strategies we encourage our students to apply to their studies.

Please visit the Learning Scientists’ website for more useful information, including blogs for parents to help support their children with their learning.

<https://www.learningscientists.org/>



Six Strategies for Effective Learning

LEARNINGSIENTISTS.ORG

All of these strategies have supporting evidence from cognitive psychology. For each strategy, we explain how to do it, some points to consider, and where to find more information.



Explain and describe
ideas with many details



Practice bringing
information to mind



ELABORATION

RETRIEVAL PRACTICE

Use specific examples
to understand abstract
ideas



CONCRETE EXAMPLES

Space out your
studying over time



SPACED PRACTICE

INTERLEAVING

DUAL CODING



Switch between ideas
while you study

Combine words
and visuals





LEARN TO STUDY USING...

Spaced Practice

SPACE OUT YOUR STUDYING
OVER TIME

- 1 TESTING
- 2 SPACING
- 3 SKETCHING



HOW TO DO IT

Start planning early for exams, and set aside a little bit of time every day. Five hours spread out over two weeks is better than the same five hours all at once.

Review information from each class, but not immediately after class.

After you review information from the most recent class, make sure to go back and study important older information to keep it fresh.

learningscientists.org



LEARN TO STUDY USING...

Spaced Practice

SPACE OUT YOUR STUDYING
OVER TIME

- 1 TESTING
- 2 SPACING
- 3 SKETCHING



TRY IT NOW

Think of a
topic you read
about a few
chapters back.
What were the
main ideas?

learningscientists.org



LEARN TO STUDY USING...

Retrieval Practice

PRACTICE BRINGING
INFORMATION TO MIND



HOW TO DO IT

Put away your class materials, and write or sketch everything you know. Be as thorough as possible. Then, check your class materials for accuracy and important points you missed.

Take as many practice tests as you can get your hands on. If you don't have ready-made tests, try making your own and trading with a friend who has done the same.

You can also make flashcards. Just make sure you practice recalling the information on them, and go beyond definitions by thinking of links between ideas.

learningscientists.org



LEARN TO STUDY USING...

Retrieval Practice

PRACTICE BRINGING
INFORMATION TO MIND



TRY IT NOW

Close your
book, and
write down as
much as you
can from
memory.

learningscientists.org



LEARN TO STUDY USING...

Elaboration

EXPLAIN AND DESCRIBE IDEAS WITH DETAILS



HOW TO DO IT

Ask yourself questions while you are studying about how things work and why, and then find the answers in your class materials and discuss them with your classmates.

As you elaborate, make connections between different ideas to explain how they work together. Take two ideas and think of ways they are similar and different.

Describe how the ideas you are studying apply to your own experiences or memories. As you go through your day, make connections to the ideas you are learning in class.

learningscientists.org



LEARN TO STUDY USING...

Elaboration

EXPLAIN AND DESCRIBE IDEAS WITH DETAILS



TRY IT NOW

Close the book and think about how what you just read connects to something you already know.

learningscientists.org



LEARN TO STUDY USING...

Interleaving

SWITCH BETWEEN IDEAS WHILE YOU STUDY



HOW TO DO IT

Switch between ideas during a study session. Don't study one idea for too long.

Go back over the ideas again in different orders to strengthen your understanding.

Make links between different ideas as you switch between them.

learningscientists.org



LEARN TO STUDY USING...

Interleaving

SWITCH BETWEEN IDEAS WHILE YOU STUDY



TRY IT NOW

OK, you've read enough about this topic. Why don't you try to answer some questions about a different topic for a bit?

learningscientists.org



LEARN TO STUDY USING...

Concrete Examples

USE SPECIFIC EXAMPLES TO UNDERSTAND ABSTRACT IDEAS



HOW TO DO IT

Collect examples your teacher has used, and look in your class materials for as many examples as you can find.

Make the link between the idea you are studying and each example, so that you understand how the example applies to the idea.

Share examples with friends, and explain them to each other for added benefits.

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LEARN TO STUDY USING...

Concrete Examples

USE SPECIFIC EXAMPLES TO UNDERSTAND ABSTRACT IDEAS



TRY IT NOW

Look around you: Can you find an example related to the idea you were just reading about?

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LEARN TO STUDY USING...

Dual Coding

COMBINE WORDS AND VISUALS



HOW TO DO IT

Look at your class materials and find visuals. Look over the visuals and compare to the words.

Look at visuals, and explain in your own words what they mean.

Take information that you are trying to learn, and draw visuals to go along with it.

learningscientists.org



LEARN TO STUDY USING...

Dual Coding

COMBINE WORDS AND VISUALS



TRY IT NOW

Now that you have read a bit, close the book and draw a visual that incorporates the main ideas.

learningscientists.org

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 record the books you read along with how long you have spent reading and the Accelerated Reader quizzes you have completed.

Week	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Book(s) read (title and author)	Total time spent reading	Parent/Guardian /Staff signature
1										
2										
3										
4										
5										
6										
7										

Reading log

Use this reading log to record the books you read along with how long you have spent reading and the Accelerated Reader quizzes you have completed.

Week	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Book(s) read (title and author)	Total time spent reading	Parent/Guardian /Staff signature
8										
9										
10										
11										
12										
13										
14										

Year 8 Spring Term Knowledge Organiser

Art – Typography– Printmaking:

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 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	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.
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	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.

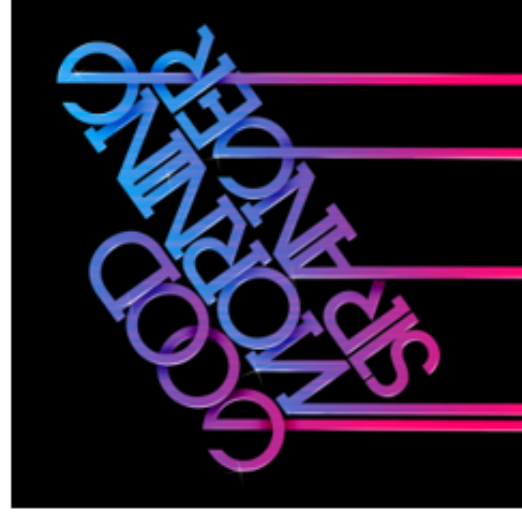
Typographical Art:



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)

Serif:
(with flicks)

Sans is the French word for without.

Weight and Size:

AaBbCc
AaBbCc

Changing the

weight or

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.



Budget

A plan showing income (money coming in) and expenditure (money spent) which allows you 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.

Debit

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.

Money & Finance

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.



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

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.
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Government, Politics & Elections

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

Voter apathy


Fixed Term Parliament Act 2011

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

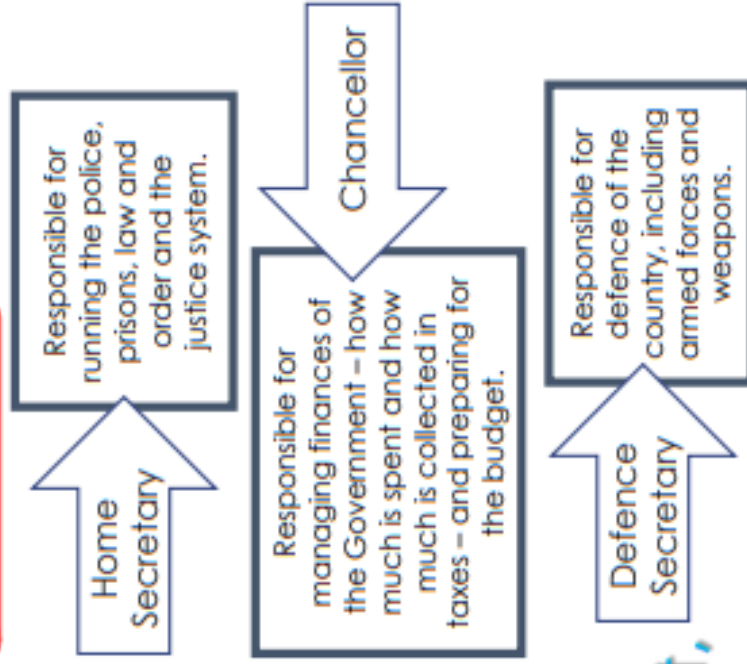


The Government are in charge of many aspects of our daily lives, such as...

- ✓ 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
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Summarise	Present key points without detail

Who can and cannot vote?

Yay!

- ✓ Over 18
- ✓ On the electoral register
- ✓ British Citizen

Nay!

- ✗ In the House of Lords
- ✗ In prison

Making connections

How can you link different topics together?

- Constituency + MP + representation
- Cabinet + MP + responsibility
- Democracy + MP + cabinet + Prime Minister

Computer Science – 8.2 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 from a website aimed at adults who are sight impaired.
Target Audience needs	Different 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 or 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.



Web

Authoring

How to add
a Rollover effect
to an image?
Interactive

Hover Effects: Text

Change Color

Underline

Dropshadow



Search



Safety

Accessibility

Computer Science – 8.3 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.

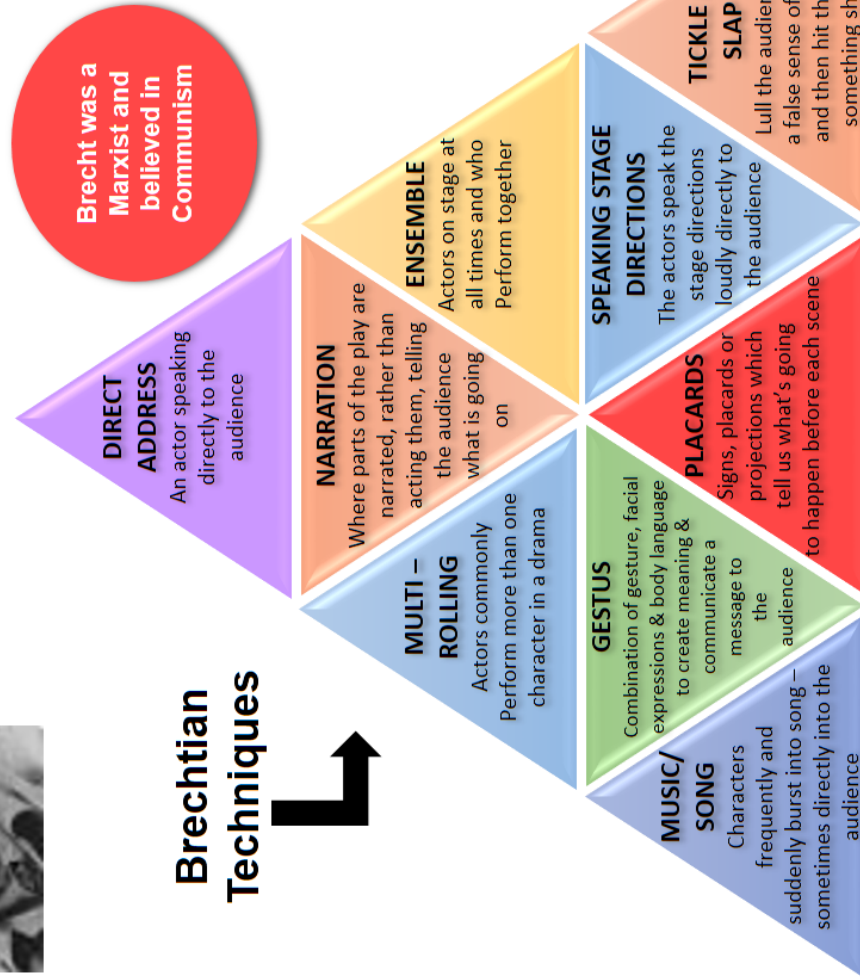
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Drama - Bertolt Brecht 1898-1956

Brecht wanted theatre to be something completely different. He believed that theatre should be political as well as entertaining. He wanted his audiences to be wide awake and critical during the performance. He thought that most audiences of realistic theatre were passive. He wanted them to realise what they saw on stage was happening in a theatre. He sought to provoke an audience into reacting to what they saw on stage so they would try to change things in the outside world.

Brechtian Techniques



Key Vocabulary	Explanation
Verfremdungseffekt or Alienation	Brecht would use techniques which would create distance between actor and the spectator, so that his audience would be able to respond to the drama objectively, learn from it, not just watch it, and be entertained. This was called Verfremdungseffekt.
Didactic	Didactic theatre just mean to educate. Brecht wanted his plays to have educational purpose. They are designed to educate the performers and audience on political and social issues in society.
Archetype	Exaggerated Stereotype
Epic Theatre	An epic play tells the story as a sequence of events rather than concentrating on an individual character's thoughts and feelings. He used a range of theatrical devices or techniques so that the audience were reminded throughout that they were watching theatre; a presentation of life, not real life itself.
Cross Cutting	Re ordering of scenes

Staging

Bare stage. All workings could be seen and any changes to scenery are made in full view of the audience. Using fragments of scenery and single pieces of furniture to suggest whole locations

Costume

Often a single item of clothing or prop was all that was used. An actor would frequently change character or costume in front of the audience reinforcing the idea of alienation

Technical Ideologies

Lighting

The stage was flooded with bright white light the entire time regardless of whether the scene was a summer day or winter evening

Unlike Stanislavski, Brecht wanted to break the 4th wall and include the audience in the performance, he did not want his plays to be watched for entertainment alone, he wanted them to help change society and make it better.

Practitioners studied so far in Drama

Stanislavski - Realism

Key Ideologies

- Method Acting
- Given Circumstances: *Who am I? Where am I? What time is it? What do I want? Why do I need it? How will I get it? What do I need it for?*
- Magic if
- Emotion memory
- Believing in what you are doing - realism
- Being expressive
- NOT breaking the 4th wall
- Costumes and set to be elaborate as they are in the real world.

Fanatic Assembly - Physical Theatre

Key Ideologies

- Push boundaries of physicality and imagination
- Help performer to understand how to use their body to tell a story.
- Breaking work into building blocks to create imaginative and creative work

Hymn Hands

Round-by-Trough

Push Hands

Chair Duets

Picking

<https://www.franticassembly.co.uk>

Complicité - Improvisation

Key Ideologies

- 'There is no Complicité method... What is essential is collaboration, and a turbulent forward momentum...'
- Devises all its work.
- Bring together all different types of performers
- Has a eclectic style and performers
- Extensive research on topics
- Space is important - where it is small or vast.
- Ensemble work - during rehearsal the company works together
- Rhythm - both inner, seven states of tension and outer rhythm of the piece are important.

<http://www.complicite.org>

Alter Ego - T.I.E

Key Ideology of T.I.E

- Educate the audience
- Based on social, moral, cultural or spiritual topics
- Multi-rolling and stereotypical characterisations
- Six key steps
 1. Pick your audience
 2. Pick your topic
 3. Research your topic
 4. Write your scene
 5. Audience participation
 6. Evaluate

<http://www.alteregocreativesolutions.co.uk>

Kneehigh - Improvisation

Key Ideology

- Kneehigh are a collection of fearless storytellers that make exciting theatre and love to take risks
- Kneehigh incorporate a number of different styles & techniques to create their work
- Kneehigh are politically minded and make theatre that both informs and entertains
- Kneehigh look to the world for inspiration and tell stories that reflect
- Kneehigh challenge traditional theatre

<https://www.kneehigh.co.uk>

Sophocles - Greek theatre

Key Ideologies of Greek theatre

- Theatre was created to please the gods
- Three Genres- Comedy, Tragedy and Satyr
- Protagonists and a chorus of 12 to 15 men
- Chorus would work as an ensemble and use unison, cannon and echo in their movement and voice.
- Masks would be worn by all
- Body language needed to be large and expressive
- Sounds were often made with body and voice

<https://www.youtube.com/watch?v=sNWwOuwx8&t=597s>

<https://www.youtube.com/watch?v=VeTeK9kvxyo&t=244s>



Year 8, Spring Term: Rhetoric

Core Text: *Animal Farm* (George Orwell)

Rhetoric is the art of using language to influence an audience. The foundations for this are defined by Greek philosopher, Aristotle, as ethos, logos, and pathos; these are known as the three rhetorical appeals. Ethos relates to ethics (doing the right thing); logos relates to logic (thinking the right thing); pathos relates to sympathy (feeling the right thing). Writers will use a number of rhetorical techniques to influence the audience's response.

Vocabulary

Influence

Audience

Persuade

Repetition

Manipulation

Anaphora

Oppression

Irony

Revolution

Hyperbole

Proletariat

Allusion

Propaganda

Rhetorical Questions

Purpose

Influence vs. Manipulation

Influence = to have an effect on the behaviour or thinking of somebody.

Manipulation = to control someone or something to your own advantage, often unfairly or dishonestly.



Allegory (noun)

a story, poem, or picture that can be interpreted to reveal a hidden meaning, typically a moral or political one. *Animal Farm* is an example of an allegory.

Communism (noun)

a theory or system of social organisation in which all property is owned by the community and each person contributes and receives according to their ability and needs. This is similar to 'animalism' in *Animal Farm*.

Writing Assessment:

Write a speech for your peers in which you persuade them to use social media less or more.

Thinking Task: How will you use rhetoric to achieve your aim?

Reading Assessment:

How does Orwell explore the idea of oppression in *Animal Farm*? You must consider the use of rhetoric in your answer.

Thinking Task: Where in the text do we see examples of oppression?

Model Paragraph: What should it look like?

- Topic statement, linked to the question.
- Reference to the text, including the use of (embedded) quotations.
- Identification of rhetorical method(s).
- Analysis of the impact of rhetorical method(s).
- Concluding statement, linking methods to the key idea presented in the question (oppression).
- Next paragraph: building the argument (use a discourse marker).

Task: Label the paragraph on the right with these elements.

Example Paragraph

Orwell's characterisation of Squealer highlights the idea of oppression. When Boxer challenges Squealer about his assertion that Snowball is a 'traitor', claiming to have seen 'documents' which prove this, Squealer says that Napoleon has 'stated categorically—categorically, comrade—that Snowball was Jones's agent from the beginning', which Boxer then accepts, because 'if Comrade Napoleon says it, it must be right'. Squealer draws on the rhetorical appeal of ethos, exploiting Boxer's trust in Napoleon; this forces Boxer to change his perspective about Snowball and agree that he must be a traitor after all. Additionally, Orwell uses repetition of the word 'categorically', which emphasises the idea that Napoleon has no doubt at all that Snowball is a traitor, so Boxer should not doubt it either. The use of rhetoric to manipulate perspective is an effective way to oppress others.

Another example where Orwell explores oppression is through...



Topic 3: Protein – Meat, Poultry and Fish

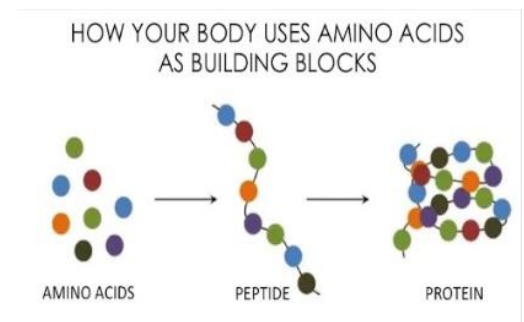
Protein is one of the nutrients essential for life. It is needed for the growth and repair of our cells and for energy. Some groups of people need more protein than others, for example, children and pregnant women need more protein for growth.



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.

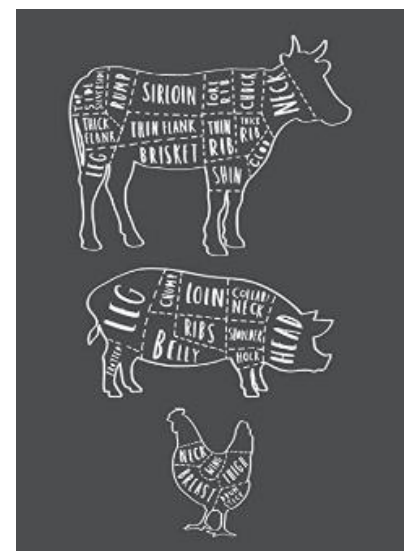
HBV proteins are mainly from animal sources. LBV proteins are mainly from plant sources such as beans, nuts and seeds. When combining LBV proteins you can consume all the essential amino acids (LBV + LBV = HBV). An example of this is beans on toast. This is called protein complementation.



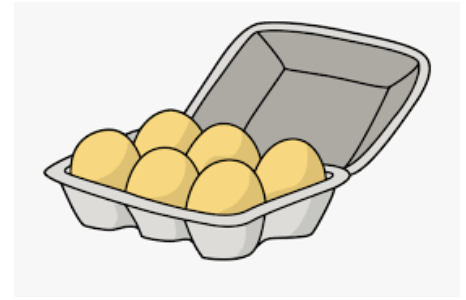
Meat is the muscle tissue of animals and it is high in protein, iron and B group vitamins. The main types of meat eaten in the UK are beef, pork and lamb. Meat from younger animals is tender and cooks quickly, meat from older animals is tougher and needs marinating or slow, moist cooking. Choose lean cuts of meat and mince, and eat less red and processed meat like bacon, ham and sausages.

Poultry are birds that are reared for eating. Popular poultry includes chicken, duck, turkey and goose. Poultry is high in protein and B vitamins and is lower in fat than meat. Poultry needs to be cooked thoroughly because it is a high risk food that can cause food poisoning.

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.



Topic 4: Protein – 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.



Eggs are very versatile and can be used to make a wide range of sweet and savoury dishes including cakes, meringues and custard or savoury tarts, omelettes and Yorkshire puddings.

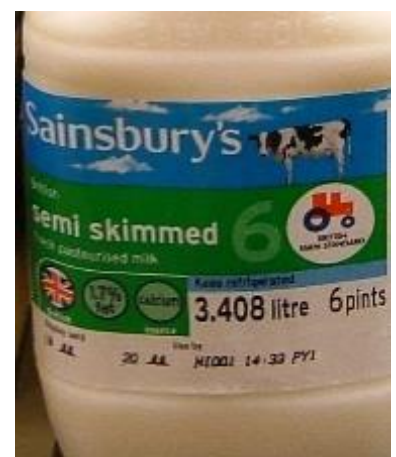
This is because the protein in eggs can denature (change shape) and coagulate (set). Proteins denature when heated, beaten or exposed to acidic foods such as lemon juice. Egg white becomes solid and turns white as it coagulates at 60C and egg yolk becomes solid at 70C.

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

Unit 3: Les loisirs – Hobbies

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)	gameshows
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 amis	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 + est-ce que 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'est-ce que tu regardes ?	What do you watch?
Comment <u>est-ce que</u> tu regardes la télé ?	How do you watch TV?

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

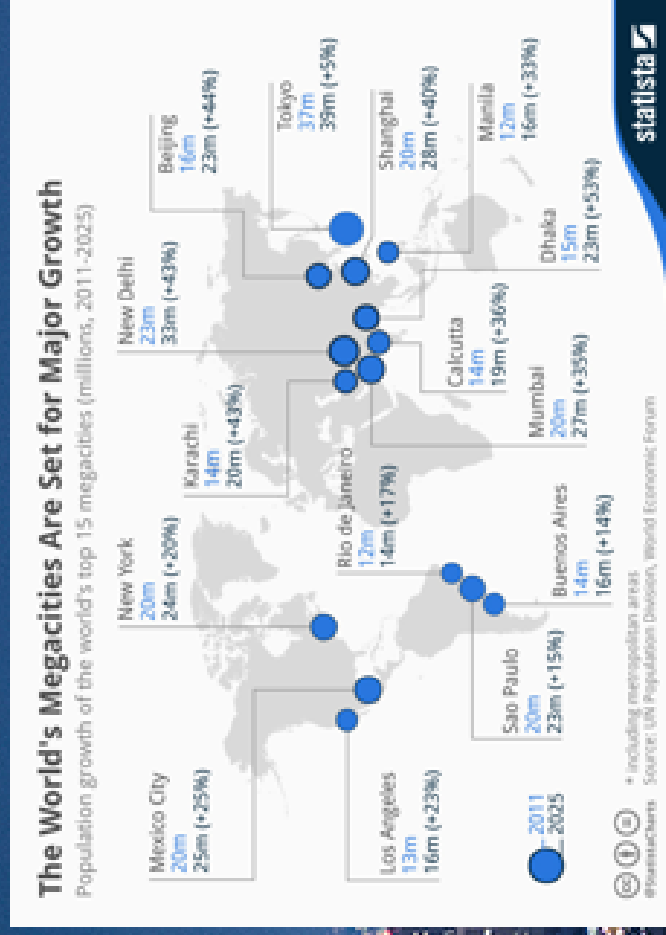
The verb POUVOIR (To be able to)	
The verb POUVOIR is an irregular modal verb. It is usually followed by an infinitive :	
<i>On peut aller au cinéma</i> – You can go to the cinema	
Je peux	I can
Tu peux	You can
Il/Elle/On peut	He/She/We can
Nous pouvons	We can
Vous pouvez	You (pl). can
Ils/Elles peuvent	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	What do you have to do at home?
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: Population

Key Term	Definition
Population	The number of people living in a geographical area. The population of the world is approximately 7.8 billion people.
Megacity	A large city with a population over 10 million.
Population density	The number of people per unit of area, usually quoted per square kilometre or square mile.
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.
Population pyramid	A graphical illustration that shows how many males and females of different age groups are in a population.



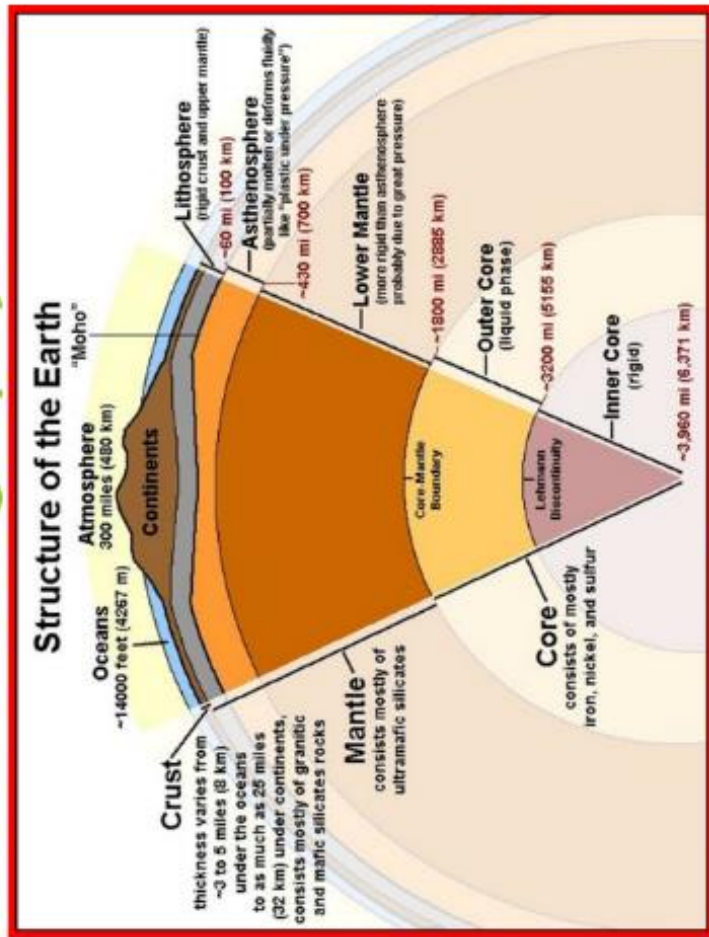
Key ideas

The world population is expected to reach **8 billion people by 2023**. Currently the highest levels of population growth are in the continents of Asia and Africa. Population growth in most parts of Europe is slowing or declining.

An **ageing population** occurs due to rising life expectancy and a declining birth rate within a population. This causes an increase in the average age of the population. In Japan, the number of people aged 65 years or older nearly has quadrupled in the last forty years, to 33 million, while at the same time the birth rate has declined. This has created social and economic problems for Japan.

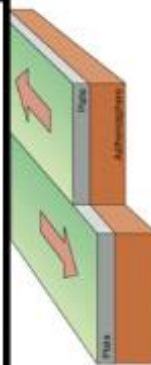
The **One Child Policy** was a policy introduced in China, between 1979 and 2015, that limited most families to only having one child. The Chinese government was afraid that its birth rate was too high, and it would not be able to care for its population. The policy was relaxed in 2015 and most families are now permitted to have two children.

Year 8 Geography: Plate Tectonics

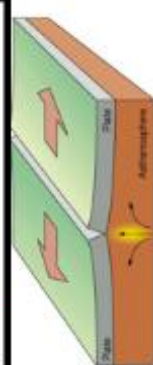


Type of plate boundary

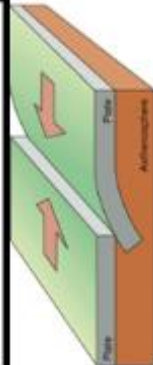
Conservative



Constructive



Destructive



Type of volcano

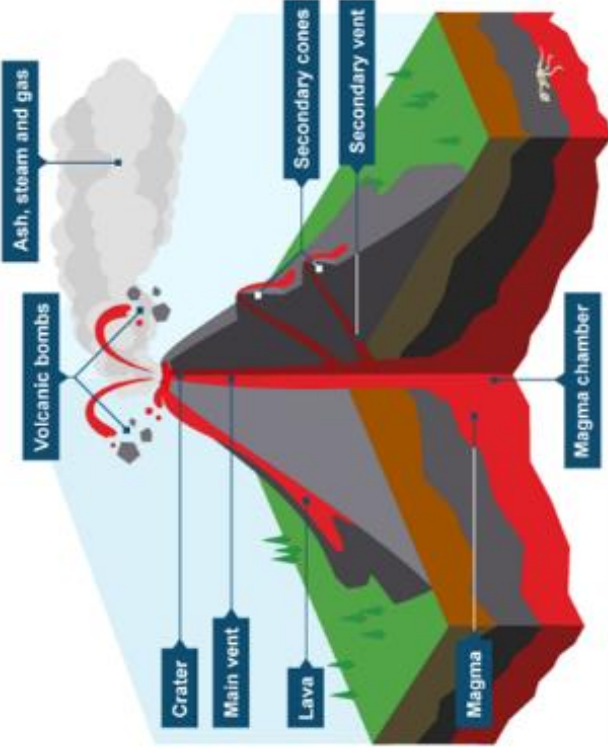
Fissure (vent)



Shield



Composite (layers)



Key Term	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

Key ideas

Earthquakes and volcanoes are primarily found at plate boundaries. The plates are like giant rafts that slowly move around. At the boundaries between plates, 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.

Y8 German – Spring Term 1

Das Frühstück

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

Breakfast

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	<i>Flammkuchen</i>
mit Sauerkraut	<i>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 Lieblingssandwich

My favourite sandwich

das Ketchup	<i>ketchup</i>
der Senf	<i>mustard</i>
der Thunfisch	<i>tuna fish</i>
die Erdnussbutter	<i>peanut butter</i>
die Gurke(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>

Oft benutze Wörter

High-frequency words

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

Five key words

der Schinken	<i>ham</i>
er isst	<i>he is eating / he eats</i>
das Frühstück	<i>breakfast</i>
weniger	<i>less / fewer</i>
Obst und Gemüse	<i>fruit and vegetables</i>

Y8 German – Spring Term 2

In der Jugendherberge

In the youth hostel

die Hausordnung	rules of the house
Man muss vor 22:00 Uhr ins Bett gehen.	You have to go to bed before ten o'clock.
Man muss das Bett machen.	You have to make the bed.
Man muss das Zimmer sauber halten.	You have to keep the room clean.
Man muss vor acht Uhr aufstehen.	You have to get up before eight o'clock.
Man muss abwaschen.	You have to wash up.
Man darf nicht rauchen.	You must not smoke.
Man darf nicht im Zimmer essen.	You must not eat in the room.
Man darf keine laute Musik hören.	You are not allowed to listen to loud music.

5 Key Words

halb sieben	half past six
Viertel	quarter
Das macht Spaß	it is fun
die Haltestelle	(bus) stop
man muss	you have to

Der Tagesablauf

Daily routine

ich stehe auf.	I get up.
Ich wasche / dusche mich.	I get washed / 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.

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, ...

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

Auf einem Fest

At a festival

der Umzug(-e)	procession / parade
der Festwagen (-)	float (in a parade)
die Band (s)	band, group
das Kostüm(e)	costume / outfit
der Hut(-e)	hat
die Fahne(n)	flag
die Kirmes/Kirmen	funfair
das Fahrkartengeschäft(e)	ride (at a funfair)
der Imbiss(e)	snack
bunt	colourful

Oft benutzte Wörter

High-frequency words

zu (zum / zur)	to (to the)
vor	before, in front of
groß	big
lang	long
laut	loud
lecker	tasty
schön	nice
toll	great
Das macht Spaß.	That's fun.
Das hat Spaß gemacht.	That was fun.

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.
1831	Faraday discovered how to generate electricity.
1833	Factory Act- Stopped children under 9 working in factories.
1833	Brunel opened the Great Western Railway
1876	Alexander Graham Bell invented the telephone.

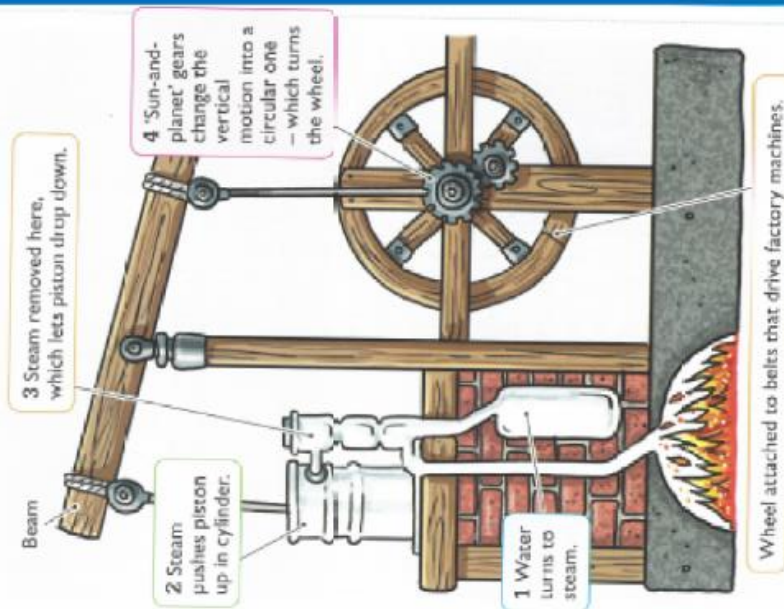
Key Words

Key Words	Definition
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.
Iron ore	A rock containing iron that can be dug from the ground. Could be used to create iron tools.
Canal	Long man made channels filled with water that could be used to transport heavy and fragile goods.
Luddites	Groups of people that rebelled over fear of losing their jobs, to new machines.
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

Key People	Role
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.
Michael Faraday	Inventor who was expert with electricity. Invented the electric motor.
Ada Lovelace	Programmer of an adding machine. Viewed as the worlds first computer programmer.
Isambard Kingdom Brunel	Inventor, designed railways, bridges, ships and communication cables from Britain to America.
Alexander Graham Bell	Invented the telephone.

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



History

Chronology

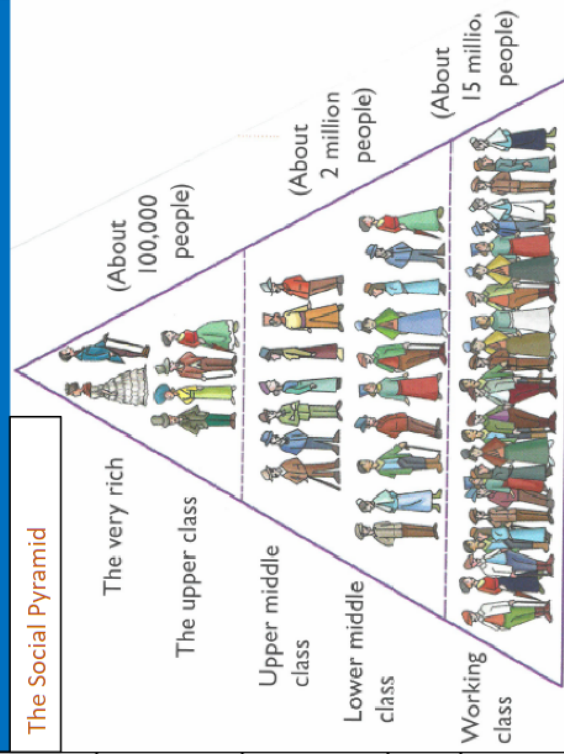
1749	The Bow Street Runners set up
1823	Prison Reform Act. Jailers were paid by the government not the prisoners. Male and female prisoners were kept separately.
1829	The Metropolitan Police Force set up.
1831	First major Cholera outbreak in Britain.
1842	Chadwick's report into conditions in towns and 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.
1870	London sewer system was completed.
1888	Jack the Ripper kills at least 5 women in Whitechapel London.

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

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.
Sewers	The system of underground pipes and tunnels that remove sewage from towns and cities.
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 Bow Street Runners	Group that would catch criminals around Bow Street in London. Especially good at stopping highway robberies.

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.
Joseph Bazalgette	Created the sewage system in London.
Henry and John Fielding	Set up the Bow Street Runners
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.

The Social Pyramid

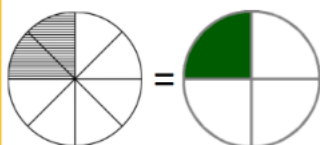


Year 8 Knowledge Organiser

RATIO

Key Concept

2 parts \swarrow $2:6$ \nwarrow 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.

Tip

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

Clip Numbers
328 – 335

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.

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	

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

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

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	6
6	6

$18 \div 3 = 6$
 $=12 = 30$

£12 : £30

Questions

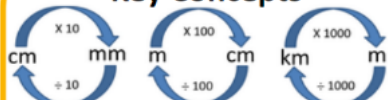
- 1) Simplify a) $45 : 63$ b) $66 : 44$ c) $320 : 440$
- 2) Write in the form $1 : n$ a) $5 : 10$ b) $4 : 6$ c) $x : x^2 + x$
- 3) Share 64 in the ratio $3 : 5$ 4) Write the ratio $1 : 4$ as a fraction.

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) $\frac{1}{5}$

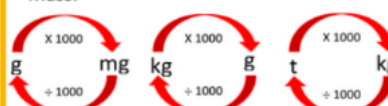
Year 8 Knowledge Organiser

UNIT CONVERSION

Key Concepts



Mass:



Volume:



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

Covert 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 = 4mph

Time = 2 hours

Find the Distance.

$D = S \times T$
 $= 4 \times 2$
 $= 8 \text{ miles}$

Speed = Distance \div Time

Distance = Speed \times Time

Time = Distance \div Speed



Clip Numbers
694, 697, 699,
705, 706, 716,
714, 716-724

Questions

- 1) Covert a) 50cm to mm b) 3kg to g c) 3000 m to km
- 2) Convert a) 5 gallons to litres b) 8.8 pounds to kg
- 3) 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) 22.5 litres 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

$$\frac{3}{5} \times \frac{7}{7} = \frac{21}{35}$$

$$\frac{2}{7} \times \frac{5}{5} = \frac{10}{35}$$

$$\frac{21}{35} + \frac{10}{35} = \frac{31}{35}$$




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

Make the denominators the same

$$\frac{3}{5} \times \frac{7}{7} = \frac{21}{35}$$

$$\frac{2}{7} \times \frac{5}{5} = \frac{10}{35}$$


$$\frac{21}{35} - \frac{10}{35} = \frac{11}{35}$$



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

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

 **hegartymaths**
Clip Numbers
63-66, 68-71

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

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

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

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

Convert into an improper fraction

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

Find a common denominator

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

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

Convert back into a mixed number

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

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

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

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

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

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

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

Convert to improper fractions

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

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

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

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

Find the reciprocal of the second fraction....

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

...and multiply

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

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

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

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) $\frac{3}{45} = \frac{1}{15}$

Music - Blues Music

An introduction to Blues Music	
Blues is a style of music that originated from African-American slaves. The basic musical pattern is based upon a chord pattern known as the 12 Bar Blues, and eventually provided the basis for Rock and Roll music in the 1950s	
Key Term – Chords/Harmony	
Reviewing and developing knowledge of chords and triads from pervious units (Y7/T2, Y8/T1)	
12 bar Blue Chord Sequence	I I I I IV IV I I V IV I V
Walking Bass	Bass accompaniment which creates a feeling of regular movement, like walking, following the notes from the 12 Bar Blues Chord Sequence.
Key term - Melody	
Reviewing and developing knowledge of melody and melodic construction from pervious units (Y7/T1)	
Blues Scale	A scale with flattened 3 rd and 7 th degrees to create 'Blue Notes'
Pentatonic Scale	A pentatonic scale has five notes, and many melodies in blues and other genres are made from the pentatonic scale.
Riff	A short repeating pattern of notes. In classical music this is also called and 'Ostinato'
Improvisation	Creating or performing spontaneously or 'on the spot'.
Call & response	One person plays (or sings) a musical phrase which is then responded to by a group performing a different phrase, like a musical conversation.

Key term - Rhythm	
Swung Rhythms	A distinctive rhythmic style often found in the Blues and Jazz music where quavers are played in a triplet rhythm
Syncopation	A way of making music more rhythmically interesting by playing 'off the beat'
Instruments	
Older Blues songs are generally a voice accompanied by banjo or acoustic guitar. As the style developed, arrangements became more complex and used instruments such as Drums, Double Bass, Piano, and jazzier instruments such as saxophone and trumpet.	
Blues lyrics	
The lyrics of Blues songs were generally sad, reflecting the lives of the slaves. The lyrics are structured in three lines, with lines 1 and 2 the same with line 3 different but often rhyming.	

Listening	Identification and application of musical features of the blues
	Understanding the context of lyrical context of Blues Music
Performing	Performing and improvising different elements of Blues Music
	Working in pairs and/or groups
Composing	Compose a short improvised melody based upon the Blues Scale
Contextual knowledge	Develop Historical knowledge of the development of Blues Music and the Slave Trade. Research famous Blues musicians

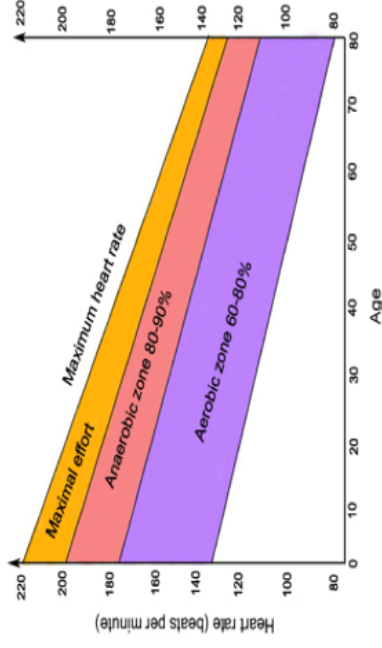
8.3 KS3 Core PE Knowledge Organiser: Exercise Intensity

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.

Calculate - Requires computation in relation to fitness data

Training Zones



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

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

First you need to calculate the athletes maximum heart rate which would be 220-20 (his age) = 200bpm (1). The aerobic target zone is 60-80% of the MHR (1). 60% of 200 is 120, 80% is 160. (1). So the athletes aerobic target zone would be between 120 and 160bpm. 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?

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.

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.

Key Vocabulary

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

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

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 .

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.

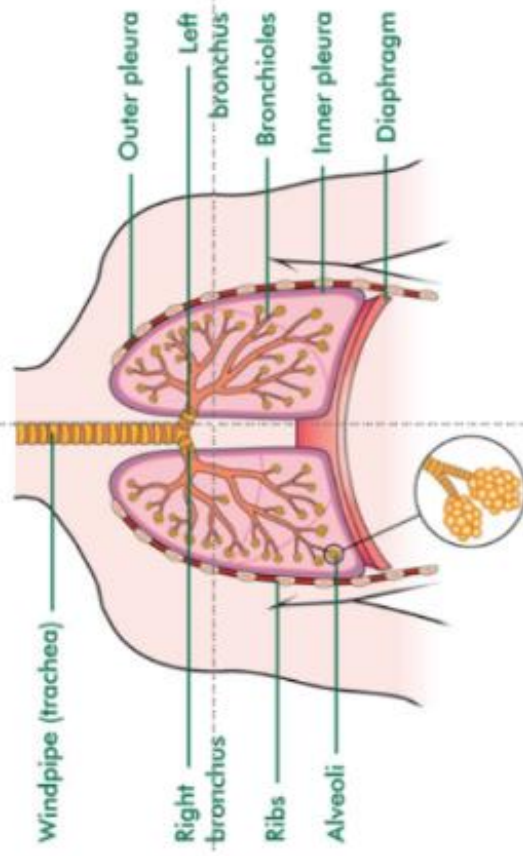
Key Word	Definition
War	Fighting between groups to resolve issues.
Civil War	War within a country.
Peace	An absence of conflict.
Pacifism	Refusing to take part in war / violence.
Just War	A war that is seen as justified, necessary and fair.
Holy War	Fighting for a religious cause.
Jihad	Striving against 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.'

The Lungs



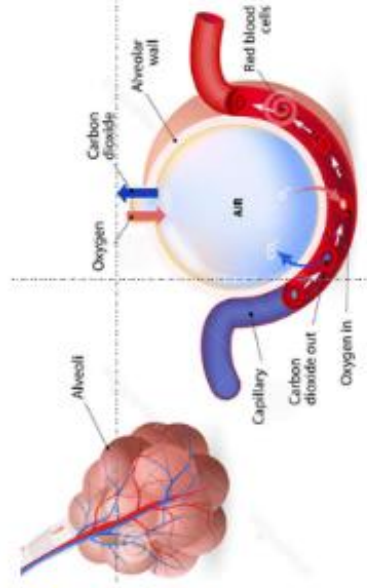
Gaseous exchange.

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

Alveoli is:

- Thin
- Has a good blood supply
- 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)

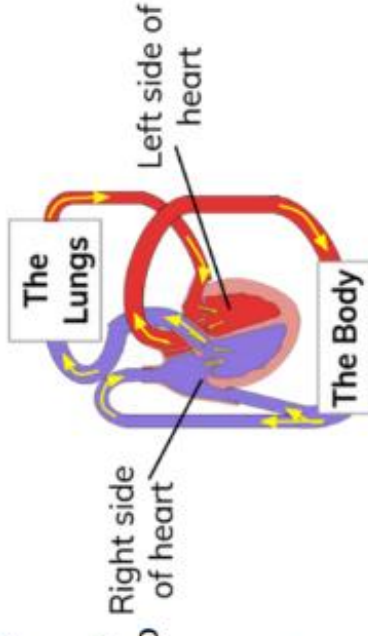
Year 8 Organ Systems Knowledge Organiser

DOUBLE CIRCULATORY SYSTEM.

Blood passes through the heart twice.

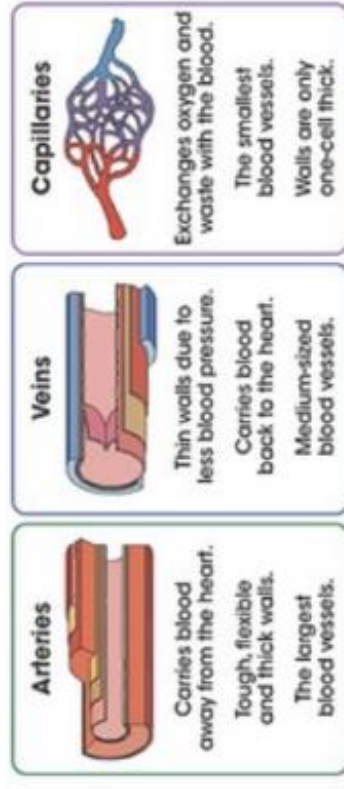
The right side pumps deoxygenated blood to the lungs.

The left side pumps oxygenated blood to the body



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 contain acid to help **kill** bacteria.

Liver - produces bile

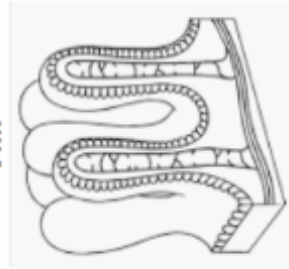
Pancreas - produces enzymes and insulin

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

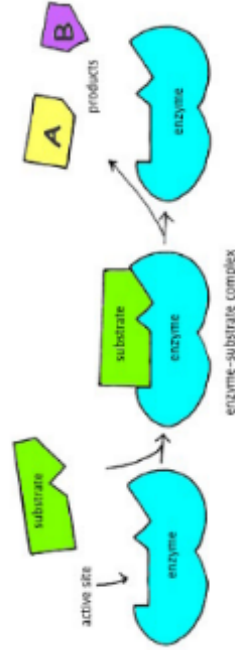
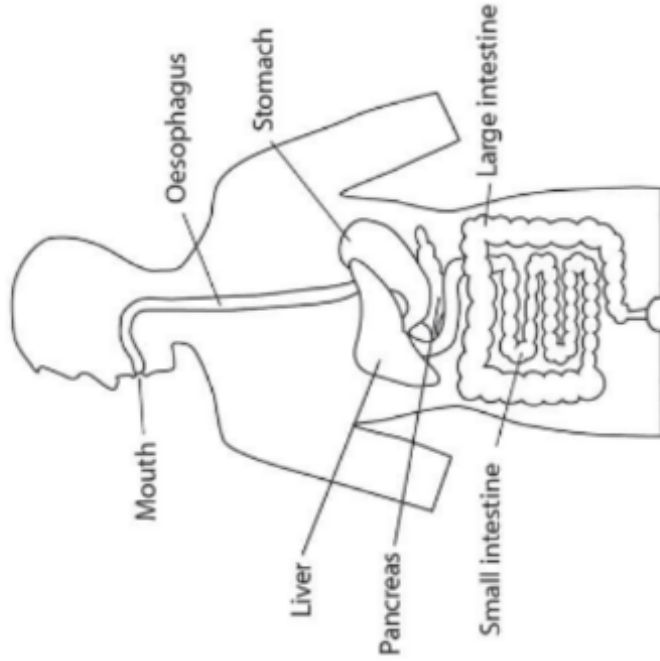
absorption of nutrients via villi

Large intestine - absorption of water

Villi



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



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.

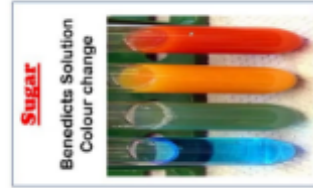
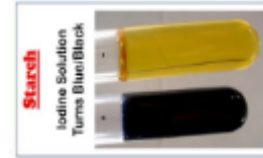
Food tests

Starch; iodine turns black

Glucose; Benedicts, blue to orange

Protein; Biurets, blue to purple

Fats; ethanol, clear to cloudy



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

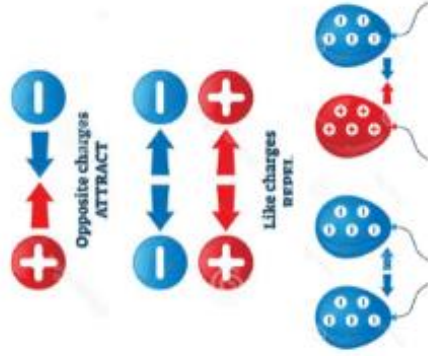
Liver
Ingestion
Small intestines
Oesophagus
Faeces
Large intestine
Egestion
Enzyme
Catalyst
Plasma
Villi
Anaerobic
Capillaries
Lactic acid
Carbohydrates

Static charge

Insulators (not conductors) can become charged when rubbed. They become either positively or negatively charged.

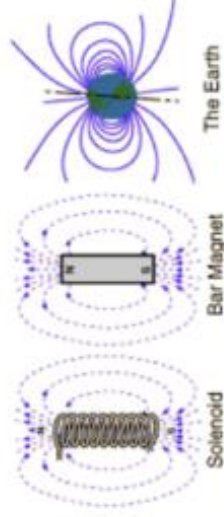
Two objects that have the same charge repel each other.

Two objects that are oppositely charged attract each other.

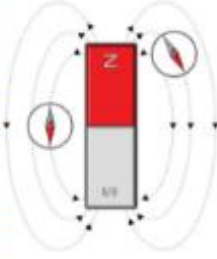


A magnet produces a

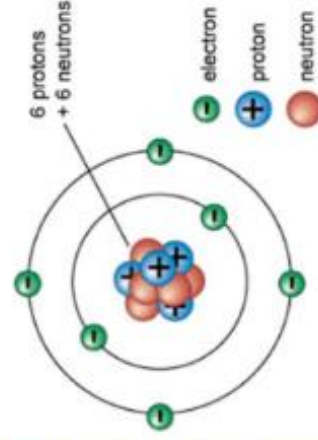
magnetic field which is a region where magnetic materials (like iron, steel, nickel and cobalt) feel a force.



A plotting compass can help us map the magnetic field.



Particle	Charge
Proton	Positive (+)
Electron	Negative (-)
Neutron	Neutral
Nucleus	Positive (+)



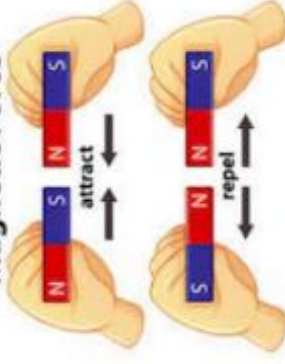
Year 7 Knowledge Organiser Physics – Electricity

Bar magnets

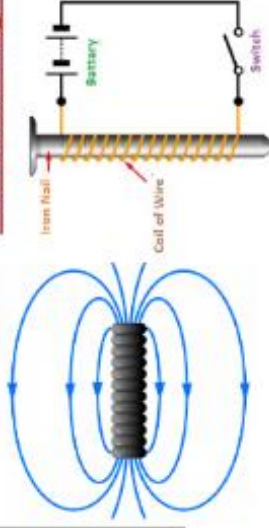
Bar magnets have a north (N) and south (S) magnetic pole.

Opposite poles of magnets attract (N v S), but like poles repel (N v N or S v S).

Magnetic Force



What is Electromagnet



A solenoid is a loop of wire with a current passing through it which creates a magnetic field.

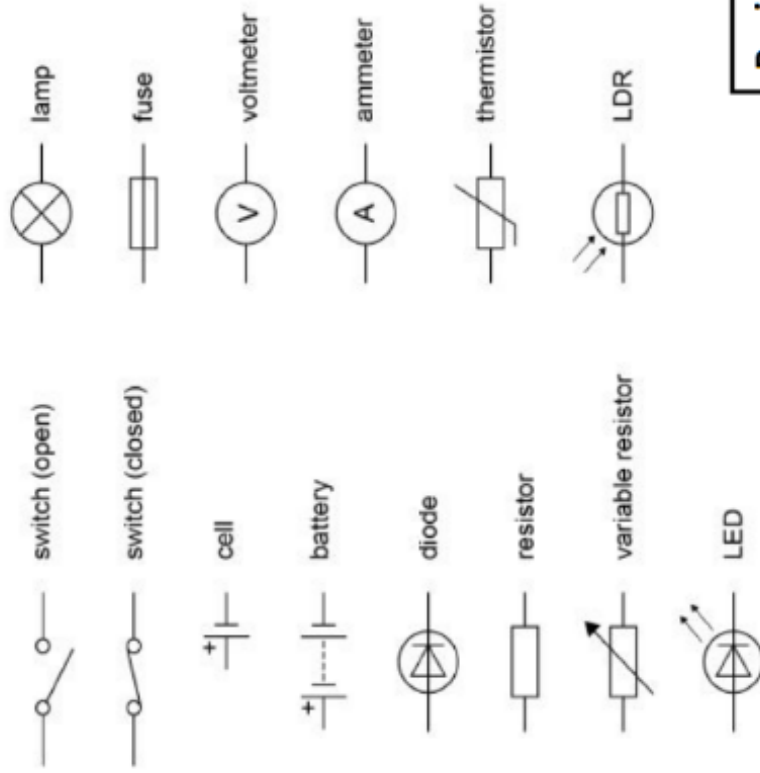
More loops of wire or a larger current make a stronger magnetic field. Electromagnets (solenoids with soft iron cores) and produce magnetic fields.

Tier 2 Vocabulary

Attract
Battery
Charged
Circuit
Compass
Current
Fuse
LED
Magnetic
Negative
Neutral
Parallel
Pole
Positive
Repel
Series

Tier 3 Vocabulary

Ammeter
Cell
Conductor
Diode
Electromagnet
Electron
Field
Insulator
LDR
Neutron
Potential Difference
Proton
Resistor
Solenoid
Thermistor
Voltmeter



Measuring current and voltage

An **ammeter** measures the **current** in a loop and is placed **in series**.

A **voltmeter** measures the **potential difference** across a component and is placed **in parallel** with the component.

Potential Difference (P.D.) or voltage

(symbol V, measured in volts, V) is provided by a cell or battery.

It measures the size of the push given to charges around the circuit (or across a component).

Current

Current (symbol I, measured in amperes, A) is the rate of flow of charge (symbol Q, measured in coulombs, C)

$$I = Q/T$$

For current to flow the circuit must be complete (no gaps).

Resistance and Ohm's Law

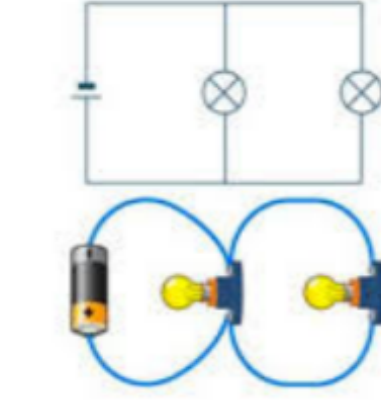
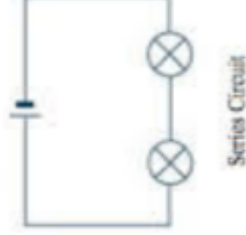
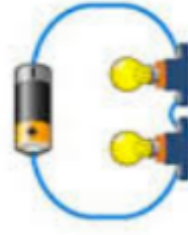
The resistance (symbol R, measured in ohms, Ω) of a component is the degree to which it opposes the flow of current.

The current passing through a circuit is directly proportional to the potential difference pushing the current around the circuit

$$I = V/R$$

Type of circuit	Property	The same /shared
Series	Current	The same
Series	Pot. Diff.	Shared
Parallel	Current	Shared
Parallel	Pot. Diff.	The same

Circuit diagrams help us to simply display complex circuits.



Series Circuit

Parallel Circuit

A **series circuit** has one loop.

- As you add more bulbs into the same loop they will become dimmer.

A **parallel circuit** has more than one loop.

- Two bulbs in different loops will stay the same brightness.

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. ceno	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
zumo (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

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 a 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: <i>primero, luego, después, finalmente...</i>	

¿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 camiseta 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

Protest Typography Specific Language and Terms

Protest

a statement or action expressing disapproval of or objection to something.

Quilting

Quilting is the term given to the process of joining a minimum of three layers of fabric together either through stitching manually by hand using a needle and thread, or mechanically with a sewing machine.

Typography

Typography- is the art and technique of arranging type to make written language legible, readable and appealing when displayed. The arrangement involves selecting typefaces, point sizes, line lengths, line-spacing, and letter-spacing, and adjusting the same in between pairs of letters.

Applique

Ornamental needlework in which pieces of fabric are sewn or stuck on to a larger piece to form a picture or pattern.

Slogan

a short and striking or memorable phrase used in advertising.

Font

A typeface is the design of lettering that can include variations in size, weight, slope, width, and so on. Each of these variations of the typeface is a font.

Examples Protest Typography:

Aram Han
Sifuentes, In 2016,
she began a
powerful project
titled 'Protest
Banner Lending
Library'.



Extinction
Rebellion,
2019.

Stephanie Syjuco, 2017.

DT - Typography. Year 8 Design and Technology Textiles Knowledge Organiser 2022

Specific Language and Terms

Black Lives Matter	Black Lives Matter is an international movement originating among African-American communities which campaigns against racism – and whose mission is ‘to intervene in violence inflicted on black communities by the state and vigilantes’.	Brexit March	In October 2019 approximately one million people joined the ‘People’s Vote’ protest to campaign against the UK’s decision to leave the European Union.
Climate Youth Strike	This is an international movement founded by Greta Thunberg in August 2018. This movement sees students take time off from their school classes on Fridays to demand that political leaders take action to prevent climate change.	Activist	A person who campaigns alone or as part of a group to bring about political and social change.



Notes Page

[illegible]

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.