Knowledge Book

Year 11

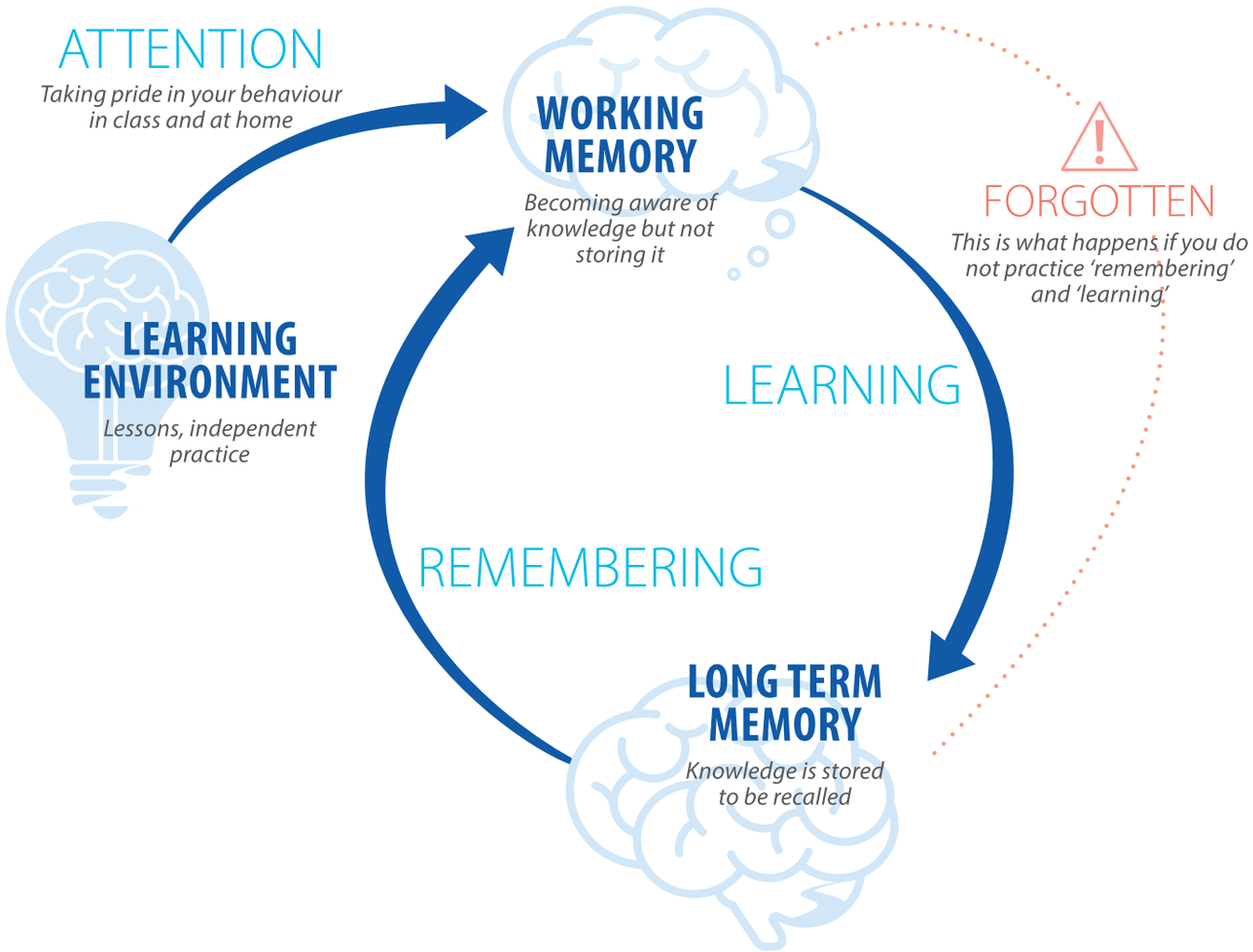
Cycle Three

Name:

West Exe School

community • opportunity • success

THIS IS HOW YOU LEARN



REMEMBERING: MASTERING YOUR MEMORY

Learning is what happens when knowledge moves from your **working memory** to your **long-term memory.**

Your **working memory** is like a desktop on your computer. If the information is not saved, then it will be **forgotten.**

Your **long-term memory** is like a computer hard drive. **Remembering** is what happens when you access the information in your **long-term memory.**

You can take practical steps to improve your ability to **learn** and **remember** key information and become the master of your memory.

Methods for achieving this habit

- Look, Cover, Write, Check
- Cornell Notes
- The Leitner Revision System

Year 11 Extended Practice Timetable & Study Skills

As Year 11 students, you have been using knowledge organisers for several years now and should be confident in their use. As we move into the year of your exams, it is time to widen your extended practice timetable to incorporate plenty of exam practice and daily revision.

- **You are expected to spend 90 minutes on your extended practice each day, with additional time set on Friday and over the weekend for Science.**
- **There are four subjects to study each day. You should spend the correct amount of time allocated to each subject.**
- **You will be assessed on the knowledge in your knowledge book for every subject throughout each cycle. In addition, you will be expected to answer the exam questions set on the online platform, as well as complete your daily tasks on Sparx.**
- **You will need to do your extended practice for each subject on the timetabled day. Your Tutor will check this several times per week.**
- **If you have not completed your extended practice for each subject, you will receive a on-hour after school extended practice detention to be carried out the next day.**

We use Google Classroom for sharing work outside of the classroom with our students using Class Codes, the content follows our curriculum and is used to support students inside of the classroom. You will only need to log into the Class Code once. Here is the link you will need to access Google Classroom: https://classroom.google.com/ and the Class Code per subject is below.

Subject	GC Code
Dashboard	bfvwh3ev
Art & Design	lpt4wla
Biology	a5xoeix
Business GCSE	3hbypwx
Chemistry	zkfbpu3
Classical Civilisation	c4cizsi
Creative iMedia	gktrhoi
Design technology	dajoo7v
English	mt3dncv
Engineering	pernwky
Geography	pnogxmd
Food GCSE	wdypopf
Further Maths	po4ozkl
Health & Social Care	en77xfl
History	vcnd4i7
Mathematics	2w3rhxd
Music Vocational	2nlrjfc
Performing Arts	iv7f24u
Photography	gkp3qmr
Physics	l5xcmwx
Science Higher	d6xkam5
Science Foundation	wh5ac4h

Sociology	qxb2db3
Spanish	xd265ty
Sport Vocational	7cyfvmc
Statistics	fsnkd3ni

Remember: Year 11 Maths – Sparx Extended Practice
For Year 11, there are some changes to your extended practice. There is the expectation that you will be completing the equivalent of 30 minutes of Maths a night, which equates to 2.5 hours a week.

	15 Mins	15 Mins	30 Mins	30 Mins
Monday	Science	Spanish	Maths	Option P
Tuesday	Science	Spanish	Maths	Geography or History Questions and task on Online Platform
Wednesday	Science	Spanish	Maths	Option Q
Thursday	Science	Spanish	Maths	Geography or History Questions and task on Online Platform
Friday +30 minutes	Science	Spanish	Maths	English Language – exam question set on Online Platform

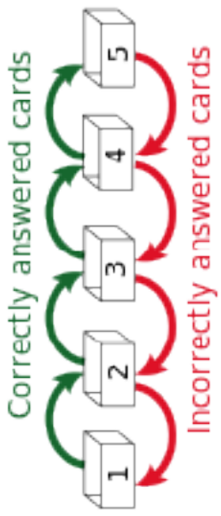
Day	Action	Consequence if not achieved
Friday	Sparx extended revision released.	
Sat/Sun	Use this time wisely to start your extended practice.	
Monday	Compulsory extended practice must have been started by now.	You will be expected to attend Sparx extended practice club in maths if you have not begun your compulsory.
Wednesday	Compulsory extended practice to complete.	If you have not completed your compulsory then you will be in detention afterschool, failure to comply will result in a lesson removal.

REMEMBERING: MASTERING YOUR MEMORY

The Leitner Revision System

1. Get 5 boxes/envelopes/containers and label them 1-5.
2. Create flash cards with key knowledge on one side and questions linked to the knowledge on the other.
3. Organise the cards into 5 boxes based on the knowledge you know best. Box 1 will contain the topics you are least comfortable with, 5 the ones you know really well.
4. Organise the timetable to look at the cards based on how well you know them. For example, you might look at box 1 cards once a day. You might look at box 3 cards 3 times a week and box 5 cards once a week.
5. When looking at a card, try to answer the questions without looking at the information. If you can do it, move the card to the next number box up. If you can't revise the information and move it to the next number box down.

This will focus more revision on topics you find harder and less on topics you will find easier.



Link to Learning

The Leitner Revision System is specifically designed to strengthen the connections between your working and long term memory.

Spacing your learning and remembering means you are preventing that previous knowledge from being forgotten.


STAEDTLER
Mars plastic
Latex Free • Sans-latex • Libre de latex
CASIO
fx-83GT X
CLASSWIZ
-2
SHIFT
ALPHA
MENU SETUP
ON
OPTN
Abs
log
ln
sin
cos
tan
RECALL
STO
ENG
S⇔D
M+
DEL
AC
Ans
MathBits.com
Pritt
IMPROVED FORMULATION
West Exe School
community • opportunity • success

House Week, West Exe School & British Values Knowledge Organiser

	West Exe School Student Attributes	House Week Activities	Key Questions
House Week 1	**Kind** **Adaptable**	• School Parliament Elections • House Charity vote	What is a good citizen? What behaviours would we expect of a good citizen? Do we need rules?
House Week 2	**Curious** **Ambitious**	*Equality, Diversity & Sustainability* • Charity fundraising • Anti-bullying Ambassadors activities • Green Team activities • Mental health • Celebrating diversity	What is tolerance? Is tolerance enough? How does our community proactively combat discrimination?
House Week 3	**Resilient** **Proud**	• Transition focused activities • Sports Day • Taster sessions (being brave and trying new things)	What does it mean to succeed? How do individuals demonstrate courage in our community? How is our individual liberty protected?

Dream More. Do More. Become More.

BULLYING UPDATE - YEAR 11

Stop!

"Each of us deserves the freedom to pursue our own version of happiness. No one deserves to be bullied'"

Barack Obama

Bullying affects lots of people and can happen anywhere: at school, travelling to and from school, in sporting teams, in friendship or family groups or in the workplace.

Bullying can take may forms including:

- Emotional abuse
- Social media
- Social exlusion
- Threatening behaviour
- Name calling
- Cyberbullying
- Sexting
- Sexual exploiration

Average child posts 26 times a day on social media - but only 6 - out of 10 followers are really friends!

Speak

"Don't you ever let a soul in the world tell you that you can't be exactly who you are"

Lady Gaga

Speak to someone. No one has a magic wand but we always do our best and we really do care.

There are lots of things you can do to keep yourself safe online.

- Think before you post
- Don't share personal details
- Watch out for phishing and scams
- Think about who you are talking to.
- Keep your device secure
- Never give out your password
- Cover your webcam
- Use strong passwords
- Report anything you are unsure of

Images sent on sites like Snapchat can still be saved and screenshotted, they stay FOREVER!

Set, protect, and respect boundaries for yourself!

Talk to someone you trust!

Support

"Blowing out someone else's candles doesn't make yours shine any brighter"

Drake

What we do at West Exe to deal with bullying:

Whatever your worry, it's better out than in!

Mentoring is having a named person you can go to for support at school.

Peer mentoring is when older students are trained to become buddies providing support and someone to talk to nearer their own age. This helps everyone in school learn that bullying is not acceptable.

Restorative justice brings all children involved together so everyone affected plays a part in repairing the harm and finding a positive way forward.

Remember: there is no reason for you to ever put up with any kind of bullying.

YOUNGMiNDS
fighting for young people's mental health

NSPCC HELPLINE
0808 800 5000
help@nspcc.org.uk

Year 11: Talking Futures

Community

You don't need to know what job you want in the future. However, starting to explore the possibilities and looking at labour market information to discover what our local and national community needs can be helpful. Use your **Unifrog** account to explore some options.

Opportunity

Our promise to you: The Talking Futures offer has lots in store for you this year;

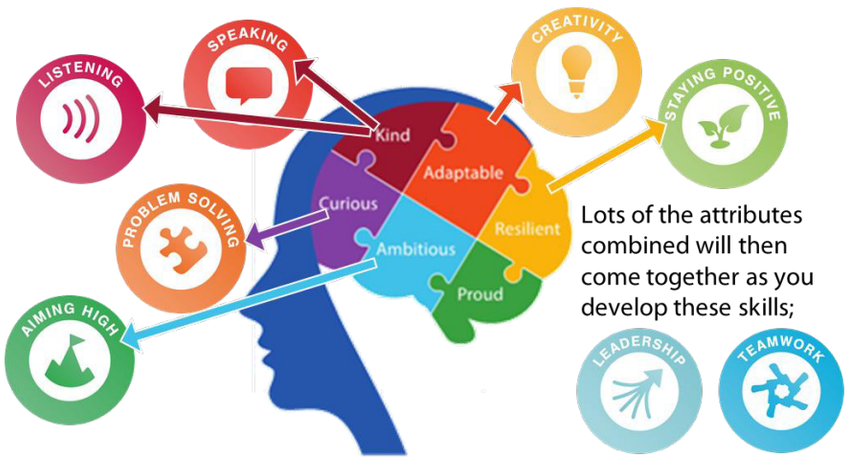
- Unifrog sessions
- Assemblies about "Next steps"
- 1:1 with a Careers Advisor and College Advisor
- Post-16 application support
- Teachers will talk about real life applications
- Career Hub Drop-ins at lunch time

Success

The qualifications you are working towards will open doors to you when you are choosing post-16 options. Here is a break down of the type of course you might choose;

Traineeship	Up to 6 months in preparation for an apprenticeship, involves work experience.
Apprenticeship	Employed and paid a wage whilst working towards a job specific qualification.
Applied vocational	Practical courses related to a specific job or career area.
T Levels	A mix of classroom learning and "on-the-job" experience preparing for a specific job.
A Levels	Main academic route after GCSEs. Can be taken alongside vocational qualifications.
International Baccalaureate (IB)	Internationally recognised 2-year course prepares for University or employment.

Employers tell us that in addition to the qualifications you gain at school, there are certain skills they are looking for. These all link to our student attributes, so strive to be your #BestExe every day.



Lots of the attributes combined will then come together as you develop these skills;

British Values

These are moral principles the Government says schools should promote. If these values are supported by everyone, our society will be fairer, more tolerant and, ultimately, a better place to live, work or learn. The values are:

Democracy is about the right to vote and take part in discussions about issues that affect our life. It is about having a voice, and a say in how your country or local area is run.
At West Exe, you have tutor MPs and a Student Parliament, who the students have voted for, and who represent your views, raising the issues you want discussed.

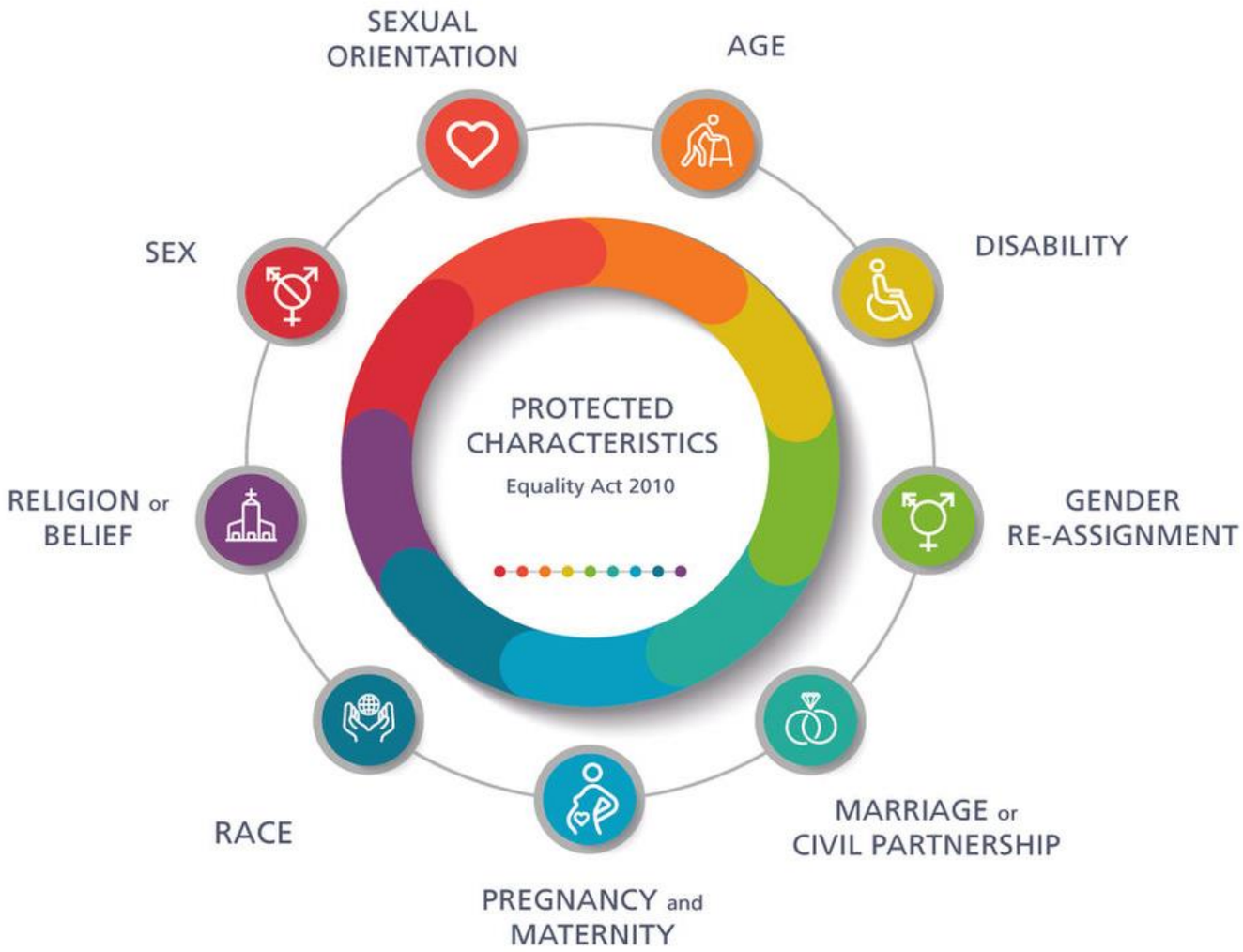
This means that the law applies to everyone, and must treat everyone the same. It means we all have the same legal rights and responsibilities.
At West Exe, the lesson expectations are for everyone to follow, our behaviour policy will be fairly applied, and you will all be treated equally.

Mutual respect: respecting people's rights to have their own beliefs. **Tolerance:** accepting the values, ideas and beliefs of others and not imposing our views on them.
At West Exe, your views, opinions and beliefs will be respected and valued, but you will also be expected to respect the views, opinions and beliefs of everyone else.

This is about having the freedom to make our own choices. In the UK, this means people have rights and freedom, as long as they do not harm another person's rights.
At West Exe, this means your rights and individuality will be protected and celebrated. It also means you will have many exciting opportunities and experiences.

Equality Act (2010)

The Equality Act is a very important law which was introduced to look after people with one or more **protected characteristics**, to try to stop them being the victims of discrimination, victimisation or harassment. The nine characteristics protected by the Equality Act are:



Key words

Disability: A physical or mental impairment that negatively impacts on a person's ability to do normal daily activities.

Gender reassignment: The process a person undertakes to alter their physical characteristics to match their gender identity.

Civil partnership: A legally recognized union between a couple with rights similar to those of marriage.

Sex: In the Equality Act, sex means male or female. Under the Act, a person's legal sex is the sex recorded on their birth certificate or their Gender Recognition Certificate.

Sexual orientation: A person's identity linked to the gender or genders to which they are attracted.

Cycle 3 – Half Term 5 Attendance Reflection

My attendance so far this year is _____ %.

This equates to _____ days absent this year so far.

The main reasons for any absence are_____

_____

Indicate how you feel about your attendance so far this year on the faces below

Identify the reasons you enjoy coming to school

I love seeing my friends	I really enjoy learning new things	I like having a routine to structure my day
I like social time at school	I really enjoy talking to my teachers	I feel safe at school
I really enjoy extra curricular activities and electives	I like that staff are there when I need help	Any other reason _____ _____

EVERY DAY COUNTS

Cycle 3 – Half Term 6 Attendance Reflection

My attendance so far this year is _____ %.

This equates to _____ days absent this year so far.

The main reasons for any absence are_____

_____

Indicate how you feel about your attendance so far this year on the faces below

What have you enjoyed the most about school so far this year?

Question	Your answer
What has been your most enjoyable subject this year and why?	
What are you most proud of achieving this year?	
Name a time you have been resilient at school and how did it feel?	
What has been your favourite conversation with a teacher?	
What question will you ask your neighbour? _____ _____	

EVERY DAY COUNTS

SPORT, HEALTH AND NUTRITION

Opportunities: Fitness suite, PE lessons, Sports clubs, Parkruns, fitness tests, walking/cycling to school.

Healthy choices: 5-a-day, less salt and sugar, more fibre, limit intake of fat, smaller portions.

Teamwork, Leadership and Communication: Fair play, equality and inclusion - House matches, fixtures, clubs, being a coach or official.

Healthy body - healthy mind! Links between physical activity and mental wellbeing. WES 10-a-day.

Targets and Goals: Being positive, being resilient, never giving up, doing your #BestExe, being a good role model.

Understand the importance of sleep: 8- 10 hours to function effectively. Rest and recovery as an important part of exercise, performance and digestion.

Get Physically Active! Aim to do 60 mins of moderate-vigorous physical activity each day across the week. Take part in activities that develop movement skills, muscles and bones. Reduce the time spent sitting or lying down - spread activity throughout the day. Monitor and regulate your screen time.

Be active daily: Make healthy lifestyle and nutrition choices. Understand the life long benefits and know how to stay healthy.

SPORT, HEALTH AND NUTRITION - Healthy ME

You should choose something from each column each week to focus on in your lesson.
Once you have completed the task put a tick next to the activity. You should try to complete all of these over the cycle.

Physical ME

Skill development: Make a list of 5 new skills you have improved on during this cycle (e.g. shooting in handball or chopping technique in food). ☐

Attend an after-school club to help you develop and improve these skills further. ☐

Developing fitness

For one of the sports, you are covering in this cycle, **identify the main components of fitness needed.** ☐

Engage in periods of sustained physical activity.

The NHS recommends that you do 2 types of physical activity each week:

1. Aerobic exercise.
2. Exercises to strengthen muscles and bones.

Young people aged 5-18 should:

- Aim to do 60 mins of moderate-vigorous physical activity each day across the week.
- Take part in activities that develop movement skills, muscles and bones.
- Reduce the time spent sitting or lying down - spread activity throughout the day. Monitor and regulate your screen time.

Keep a log of your activity levels for a typical week - see if you meet the NHS guidelines.

Monitor your screen time for a week. ☐

Use equipment safely and hygienically.

Think about the activities you are doing in this cycle and in each session be conscious of at least 2 safety considerations needed. ☐

Cook a healthy meal from one of the recipes you have done in food this cycle. ☐

Thinking (Mental) ME

Making appropriate time for **rest, relaxation, and sleep -** Having routines that support positive mental health.

Try to get 8-10 hours of good quality sleep a night!

Rules, strategies and tactics. Think about:

- What are the main **rules** for the sport you are covering now? Write down 3 rules you have learnt. ☐
- Can you give an example of a **simple strategy or tactic** you have been using? ☐
- Can you give an example of a more **complex strategy or tactic** you have been using? ☐
- **Give 3 rules you must follow in the kitchen.** ☐

Terminology:

Give 3 examples of terminology you have learnt in any of your SHN lessons. ☐

Knowledge of muscles and bones - how many muscles and bones can you label correctly? ☐

Being resilient - positive growth mindset and never give up attitude- always looking to improve! **Give an example of how you have demonstrated resilience in your lessons.** If you found something challenging/ difficult but kept trying - How did you feel afterwards? ☐

Social ME

Leadership - Taking responsibility within lessons (e.g. officiating, leading warm ups or practices or supporting food preparation in food lessons).

- **Offer to be a leader for a lesson!** ☐
- **Help another person in a lesson to help them make progress.** ☐
- **Officiate a game.** ☐
- **Give feedback and support to another person.** ☐
- **Motivate and encourage others in a lesson.** ☐
- **Make an effort to INCLUDE another less confident person in your lesson. Help others learn - coaching.** ☐

Teamwork - Working together - Work co-operatively, work collaboratively to achieve a goal. ☐

Give 2 examples of where you have shown good teamwork. ☐

Communication

Verbal - give some feedback on a performance - What went well? How could they improve it? ☐

Non-verbal - Use of whistle, signals as an official, use of a demonstration **- Try to do one of these each week.** ☐

YST ACTIVE IN MIND

Body

Hydration

I can drink more water by...

I need _____ water each day.

Sleep

I need _____ hours of sleep.

I could improve my sleep by...

Exercise

What exercise could I do?

I need 60 minutes of exercise a day

I could add exercise to my day by...

Diet

I could improve my diet by...

Environment

Your environment influences who you become, what you believe and do.

Who can support you?

How does technology affect your attention, mood, sleep and memory?

I will change my technology use by...

When we are organised we feel calmer. How could you be more organised?

What could you change at home

Mind

What am I worrying about?

Is there anything I can do about it?

No? Let it go.

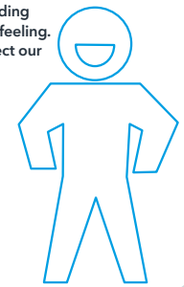
Yes? Do it now or make a plan about how and when you will do it.

Power poses

How we are sitting or standing tells our brain how we are feeling. Powerful postures can affect our mood and confidence. Think about someone who is confident or brave. What is their posture like?

Try this posture:

1. Stand/sit tall with your shoulders back
2. Hold your head up
3. Smile



Tips for learning new skills

1. Avoid distractions.
2. Make your environment comfortable.
3. Get some water to drink.
4. Prepare all your equipment and materials.
5. Use bright coloured paper and pens.
6. Use pictures and diagrams.
7. Practice in chunks of time, taking regular breaks.
8. Give yourself enough time.

Stressors

What are my stressors?

What stresses me out...

What happens to your mind and body when you feel stressed? Does your heart beat faster? Do your thoughts become confused? Write down all the things you notice.

What can you do to influence your body's response to stress?

Positive thoughts

Your brain changes based on what you think. We can help our brain to change positively by using positive statements. Complete the "I am..." in the box with the word you want to become. For example: "I am confident" or "I am calm"

I am...

Visualisation

Athletes practice their skills in their mind by imagining themselves winning. This helps their brain learn how to be successful. Create a picture in your mind of something you want to achieve. Draw the picture in the box of what you will visualise.

Mindfulness

Mindfulness helps our brain to be calm and to learn how to focus. Try this mindfulness exercise:

Trace your fingers around your opposite hand.

Breathe in, slide up

Breathe out, slide down

Grateful

When we focus on what we are grateful for our brain notices more of the things which help us to feel happy. Everyday write down one thing you are grateful for. What are you grateful for today?

I am grateful for...

New habits and actions

LITERACY ACROSS THE CURRICULUM

Literacy Marking Codes

Code	What it means	What you need to do in green pen
SP	Incorrect Spelling	Find the correct spelling and write it in the margin three times.
CL	Use a capital letter	Replace the lower case letter with a capital.
O	Missing full stop or other missing punctuation	Add the punctuation in the correct place.
//	New paragraph	Think why you need a new paragraph here (change of topic/time/place/speaker).
WW	Wrong word choice	The word you have chosen does not fit in this sentence – choose an alternative.
?	Does this make sense?	Re-write the sentence so it makes sense.

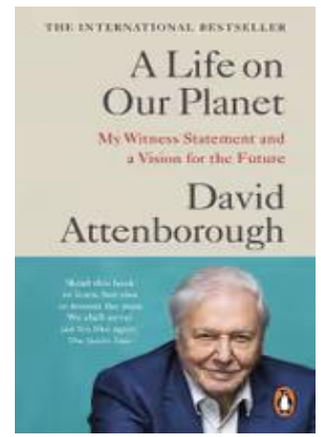
Reading Consistencies

Following the text at all times	Use your overlay to follow the text. Every single person in the classroom should be following along this way. This way you know exactly where you are when asked to read and won't lose your place during discussions. Use an overlay if you have one.
Switching the reader	When you are given the instruction you are to take over the reading for a period of time. All pupils are expected to read.
Holding the place	Use your bookmarks to carefully note where you have stopped reading, so that you can commence reading again swiftly once discussion is over.
Checking the punctuation/ emphasis	Your teacher may ask you to reread a section, paying attention to the pauses, exclamation marks and question marks written in the text.
Pointing out the error	Your teacher may ask you to reread a particular word, breaking it down and sounding it out so that the correct pronunciation is given.

The West Exe Canon – a collection of culturally significant texts

Small Island explores the lives of Jamaican and British characters around World War II, highlighting themes of racism, identity, and the Windrush generation's struggle to belong in postwar Britain.

Life on Our Planet by David Attenborough reflects on Earth's natural history while urgently warning about human-driven environmental damage and the need to protect biodiversity.



Year 11 CYCLE 3 MATHS - Foundation Formula Quiz

Foundation Tier

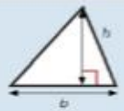
Weeks 1, 2 &3

Areas

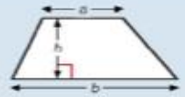
Rectangle = $l \times w$

Parallelogram = $b \times h$

Triangle = $\frac{1}{2} \times b \times h$



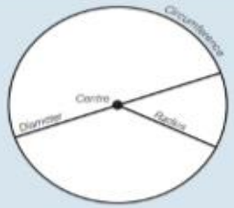
Trapezium = $\frac{1}{2}(a+b)h$



Circles

Circumference = $\pi \times diameter = \pi d$

$2 \times \pi \times radius = 2\pi r$



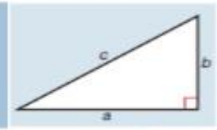
Area of a circle = $\pi \times radius\ squared = \pi r^2$

Right-angled triangles

Pythagoras' Theorem

For a right-angled triangle,

$a^2 + b^2 = c^2$



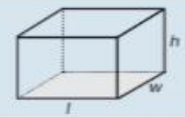
Trigonometric ratios (*new to F*)

$\sin x° = \frac{opp}{hyp}$, $\cos x° = \frac{adj}{hyp}$, $\tan x° = \frac{opp}{adj}$

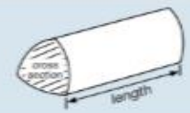
Weeks 4, 5 & 6

Volumes

Cuboid = $l \times w \times h$



Prism = $area\ of\ cross\ section \times length$



Cylinder = $\pi r^2 h$

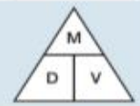
Compound measures

Speed

speed = $\frac{distance}{time}$

Density

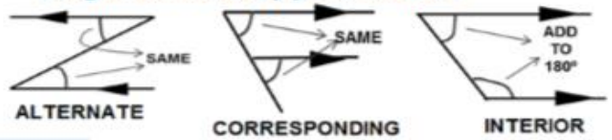
density = $\frac{mass}{volume}$



Pressure

pressure = $\frac{force}{area}$

Angles formed by parallel lines



Foundation Formula Quiz

Weeks 7, 8 & 9

Constructing Pie Charts

The angle to draw for each sector is

$$\text{Angle} = \frac{\text{frequency}}{\text{total}} \times 360°$$

Angles in Polygons

Sum of Interior Angles $= (n-2) \times 180°$

Where n is the number of sides of the shape

Exterior Angles add up to 360°

One exterior angle in a REGULAR polygon $= \frac{360°}{n}$

$Interior + Exterior = 180°$

Other useful formulae

$gradient = \frac{change\ in\ y}{change\ in\ x}$

$\%\ change = \frac{difference}{original} \times 100$

Types of numbers

SQUARE NUMBERS

→ 1, 4, 9, 16, 25, 36, 49, 64, 81, 100 etc

(1x1) (2x2) (3x3) (4x4) (5x5) (6x6) (7x7) (8x8) (9x9) (10x10)

CUBE NUMBERS

→ 1, 8, 27, 64, 125 etc

(1x1x1) (2x2x2) (3x3x3) (4x4x4) (5x5x5)

PRIME NUMBERS

→ 2, 3, 5, 7, 11, 13, 17, 19, 23, 29 etc

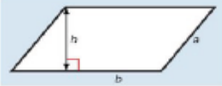
Year 11 CYCLE 3 MATHS - Higher Formula Quiz

Higher Tier

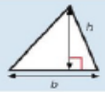
Weeks 1, 2 &3

Areas

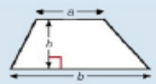
Parallelogram = $b \times h$



Triangle = $\frac{1}{2} \times b \times h$



Trapezium = $\frac{1}{2}(a+b)h$



Circles

Circumference =
$\pi \times diameter = \pi d$
OR
$2 \times \pi \times radius = 2\pi r$

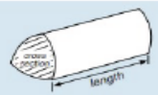
Area of a circle =
$\pi \times radius\ squared = \pi r^2$

Area of a Sector
$A = \frac{\theta}{360°} \times \pi r^2$

Length of an Arc
$A = \frac{\theta}{360°} \times \pi d$

Volumes

Prism =
$area\ of\ cross\ section \times length$



Cylinder = $\pi r^2 h$

Volume of pyramid =
$\frac{1}{3} \times area\ of\ base \times h$

Weeks 4, 5 & 6

Angles in Polygons

Sum of Interior Angles $= (n-2) \times 180°$

Where n is the number of sides of the shape

Exterior Angles add up to 360°

One exterior angle in a REGULAR polygon $= \frac{360°}{n}$

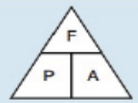
$Interior + Exterior = 180°$

Compound measures

Speed
speed = $\frac{distance}{time}$

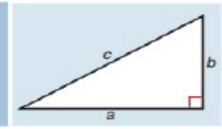
Density
density = $\frac{mass}{volume}$

Pressure
pressure = $\frac{force}{area}$

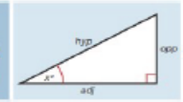


Right-angled triangles

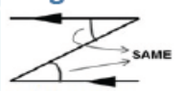
Pythagoras' Theorem
For a right-angled triangle,
$a^2 + b^2 = c^2$



Trigonometric ratios (*new to F*)
$\sin x° = \frac{opp}{hyp}$, $\cos x° = \frac{adj}{hyp}$, $\tan x° = \frac{opp}{adj}$



Angles formed by parallel lines



ALTERNATE

CORRESPONDING

INTERIOR

Weeks 7, 8 & 9

Quadratic equations

The Quadratic Equation
To solve a quadratic equation in the form:
$ax^2 + bx + c = 0$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Indices and surds

$a^0 = 1$ $\quad a^{\frac{1}{2}} = \sqrt{a}$

$a^{-n} = \frac{1}{a^n}$ $\quad a^{\frac{1}{n}} = \sqrt[n]{a}$

$\sqrt{a \times b} = \sqrt{a} \times \sqrt{b}$

$\sqrt{\frac{a}{b}} = \frac{\sqrt{a}}{\sqrt{b}}$

Straight lines

$gradient = \frac{change\ in\ y}{change\ in\ x}$

Given a gradient of a line m, the gradient of the line perpendicular to it is: $-\frac{1}{m}$

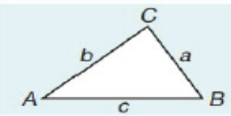
Perpendicular gradients multiply to give –1.

Trigonometric formulae

Sine Rule $\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$

Cosine Rule $a^2 = b^2 + c^2 - 2bc \cos A$

Area of triangle $= \frac{1}{2}ab \sin C$



x	0°	30°	45°	60°	90°
$\sin x$	0	$\frac{1}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{\sqrt{3}}{2}$	1
$\cos x$	1	$\frac{\sqrt{3}}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{1}{2}$	0
$\tan x$	0	$\frac{1}{\sqrt{3}}$	1	$\sqrt{3}$	Undefined (asymptote)

Year 11 CYCLE 3 GEOGRAPHY - Subject Specific Vocabulary (Paper 1)

WEEK 1

Hazard risk: The probability or chance that a natural hazard may take place.
Natural hazard: A natural event (for example an earthquake, volcanic eruption, tropical storm, flood) that threatens people or has the potential to cause damage, destruction and death.
Conservative plate margin: Tectonic plate margin where two tectonic plates slide past each other.
Constructive plate margin: Tectonic plate margin where rising magma adds new material to plates that are diverging or moving apart.
Destructive plate margin: Tectonic plate margin where two plates are converging or coming together and oceanic plate is subducted. It can be associated with violent earthquakes and explosive volcanoes.
Immediate responses: The reaction of people as the disaster happens and in the immediate aftermath.
Long-term responses: Later reactions that occur in the weeks, months and years after the event.
Monitoring: Recording physical changes to help forecast when and where a natural hazard might strike.
Planning: Actions taken to enable communities to respond to, and recover from natural disasters.
Prediction: Attempts to forecast when and where a natural hazard will strike, based on current knowledge.
Primary effects: The initial impact of a natural event on people and property, caused directly by it, for instance the ground buildings collapsing following an earthquake.
Protection: Actions taken before a hazard strikes to reduce its impact.

WEEK 2

Secondary effects: The after-effects that occur as indirect impacts of a natural event, sometimes on a longer timescale.
Extreme weather: This is when a weather event is significantly different from the average or usual weather pattern, and is especially severe or unseasonal.
Global atmospheric circulation: The worldwide system of winds, which transports heat from tropical to polar latitudes.
Tropical storm: An area of low pressure with winds moving in a spiral around the calm central point called the eye of the storm. Winds are powerful and rainfall is heavy.
Adaptation: Actions taken to adjust to natural events such as climate change, to reduce potential damage, limit the impacts, take advantage of opportunities, or cope with the consequences.
Climate change: A long-term change in the earth's climate, especially a change due to an increase in the average atmospheric temperature.
Mitigation: Action taken to reduce or eliminate the long-term risk to human life and property from natural hazards, such as building earthquake-proof buildings or making international agreements about carbon reduction targets.
Abiotic: Relating to non-living things.
Biotic: Relating to living things. Consumer Creature that eats animals and/or plant matter.
Decomposer: An organism such as a bacterium or fungus, that breaks down dead tissue, which is then recycled to the environment.

WEEK 3

Ecosystem: A community of plants and animals that interact with each other and their physical environment.
Food chain: The connections between different organisms that rely on one another as their source of food.
Food web: A complex hierarchy of plants and animals relying on each other for food.
Nutrient cycling: A set of processes whereby organisms extract minerals necessary for growth from soil or water, before passing them on through the food chain - and ultimately back to the soil and water.
Global ecosystem: Very large ecological areas on the earth's surface (or biomes), with animals and plants adapting to their environment. E.g. tropical rainforest and hot desert.
Biodiversity: The variety of life in the world or a particular habitat.
Commercial farming: Farming to sell produce for a profit to retailers or food processing companies.
Debt reduction: Countries are relieved of some of their debt in return for protecting their rainforests.
Deforestation: The chopping down and removal of trees to clear an area of forest.
Ecotourism: Responsible travel to natural areas that conserves the environment, sustains the wellbeing of the local people, and may involve education.
Logging: The business of cutting down trees and transporting the logs to sawmills.

WEEK 4

Mineral extraction: The removal of solid mineral resources from the earth.
Soil erosion: Removal of topsoil faster than it can be replaced, due to natural (water and wind action), animal, and human activity. Topsoil is the top layer of soil and is the most fertile because it contains the most organic, nutrient-rich materials.
Subsistence farming: A type of agriculture producing food and materials for the benefit only of the farmer and his family.
Sustainability: Actions and forms of progress that meet the needs of the present without reducing the ability of future generations to meet their needs.
Appropriate technology: Technology that is suited to the needs, skills, knowledge and wealth of local people in the environment in which they live.
Desertification: The process by which land becomes drier and degraded, as a result of climate change or human activities, or both.
Over-cultivation: Exhausting the soil by over-cropping the land.
Overgrazing: Grazing oo many livestock for too long on the land, so it is unable to recover its vegetation.
Arch: A wave-eroded passage through a small headland.
Bar: Where a spit grows across a bay, a bay bar can eventually enclose the bay to create a lagoon.
Cave: A large hole in the cliff caused by waves forcing their way into cracks in the cliff face.

WEEK 5

Beach nourishment: The addition of new material to a beach artificially, through the dumping of large amounts of sand or shingle.
Cliff: A steep high rock face formed by weathering and erosion along the coastline.
Headlands and bays: A rocky coastal promontory made of rock that is resistant to erosion; headlands lie between bays of less resistant rock where the land has been eroded back by the sea.
Sand dune: Coastal sand hill above the high tide mark, shaped by wind action, covered with grasses and shrubs.
Flood: Occurs when river discharge exceeds river channel capacity and water spills out of the channel onto the floodplain and other areas.
Flood plain: The relatively flat area forming the valley floor on either side of a river channel, which is sometimes flooded.
Gorge: A narrow, steep sided valley, often formed as a waterfall retreats upstream.
Interlocking spurs: A series of ridges projecting out on alternate sides of a valley and around which a river winds its course.
Levees: Embankment of sediment along the bank of a river. It may be formed naturally by regular flooding or be built up by people to protect the area against flooding.
Meander: A pronounced bend in a river.
Ox-bow lake: An arc-shaped lake which has been cut off from a meandering river.
Waterfall: Sudden descent of a river or stream over a vertical or very steep slope in its bed. Forms when water meets more resistant rock.

Year 11 CYCLE 3 GEOGRAPHY - Subject Specific Vocabulary (Paper 2)

WEEK 6

Brownfield site: Land that has been used, abandoned and now awaits some new use.
Economic opportunities: Chances for people to improve their standard of living through employment.
Greenfield site: A plot of land, often in a rural or on the edge of an urban area that has not yet been subject to any building development.
Integrated transport systems: When different transport methods connect together, making journeys smoother and therefore public transport more appealing.
Mega-cities: An urban area with a total population in excess of ten million people.
Migration: When people move from one area to another. In many LICS people move from rural to urban areas.
Natural increase: The birth rate minus the death rate of a population.
Rural-urban fringe: A zone of transition between the built-up area and the countryside, where there is often competition for land use.
Sanitation: Measures designed to protect public health, including the provision of clean water and the disposal of sewage and waste.
Social deprivation: The degree to which an individual or an area is deprived of services, decent housing, adequate income and local employment.

WEEK 7

Squatter settlement: An area of poor-quality housing, lacking in amenities such as water supply, sewerage and electricity, which often develops spontaneously and illegally in a city in an LIC.
Traffic congestion: Occurs when there is too great a volume of traffic for roads to cope with, so traffic jams form and traffic slows to a crawl.
Urban greening: The process of increasing and preserving open space such as public parks and gardens in urban areas.
Urbanisation: The process by which an increasing percentage of a country's population comes to live in towns and cities. Rapid urbanisation is a feature of many LICs and NEEs.
Urban regeneration: The revival of old parts of the built-up area by either installing modern facilities in old buildings or opting for redevelopment.
Urban sprawl: The unplanned growth of urban areas into the surrounding countryside.
Waste recycling: The process of extracting and reusing useful substances found in waste.
Birth rate: The number of births in a year per 1000 of the total population.
Death rate: The number of deaths in a year per 1000 of the total population.
De-industrialisation: The decline of a country's traditional manufacturing industry due to exhaustion of raw materials, loss of markets and competition from NEEs.
Development gap: The difference in standards of living and wellbeing between the world's richest and poorest countries.

WEEK 8

Globalisation: The process which has created a more connected world, with increases in the movements of goods (trade) and people (migration and tourism) worldwide.
Gross national income (GNI): A measurement of economic activity that is calculated by dividing the gross (total) national income by the size of the population.
Human Development Index (HDI): A method of measuring development in which GDP per capita, life expectancy and adult literacy are combined to give an overview.
Industrial structure: The relative proportion of the workforce employed in different sectors of the economy (primary, secondary, tertiary and quaternary).
Infant mortality: The average number of deaths of infants under 1 year of age, per 1000 live births, per year.
Life expectancy: The average number of years a person might be expected to live.
Literacy rate: The percentage of people who have basic reading and writing skills.
Microfinance loans: Very small loans which are given to people in the LICs to help them start a small business.
North-south divide (UK): Economic and cultural differences between Southern England and Northern England. There are clear differences in health conditions, house prices, earnings, and political influence.
Trade: The buying and selling of goods and services between countries.

WEEK 9

Transnational Corporation (TNC): A company that has operations in more than one country. Many TNCs are large and have well-known brands.
Agribusiness: Large-scale, capital-intensive farming using machinery.
Carbon footprint: A measurement of all the greenhouse gases we individually produce, through burning fossil fuels for electricity, transport etc, expressed as tonnes (or kg) of carbon-dioxide equivalent.
Energy mix: The range of energy sources of a region or country, both renewable and non-renewable.
Food miles: The distance covered supplying food to consumers.
Fossil fuel: A natural fuel such as coal or gas, formed in the geological past from the remains of living organisms.
Organic produce: Food which is produced using environmentally and animal friendly farming methods on organic farms.
Resource management: The control and monitoring of resources so that they do not become depleted or exhausted.
Aeroponics: Growing plants in an air or mist environment without the use of soil.
Biotechnology: The manipulation (through genetic engineering) of living organisms to produce useful commercial products (such as pest resistant crops and new bacterial strains).
Famine: A widespread, serious, shortage of food. In the worst cases it can lead to starvation and even death.

WEEK 10

Food insecurity: Being without reliable access to a sufficient quantity of affordable, nutritious food.
Food security: When people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life.
Hydroponics: A method of growing plants using mineral nutrient solutions, in water, without soil. Irrigation: Applying water to land in order to supply crops and other plants with necessary water.
Permaculture: A system of agricultural and social design principles based upon or directly using patterns and features observed in natural ecosystems.
Sustainable development: Development that meets the needs of the present without limiting the ability of future generations to meet their own needs.
Sustainable food supply: Food that is produced in ways that avoid damaging natural resources, provide social benefits such as good quality food and safe and healthy products, and contribute to local economies.
Undernutrition: This occurs when people do not eat enough nutrients to cover their needs for energy and growth, or to maintain a healthy immune system.
Urban farming: The growing of fruits, herbs, and vegetables and raising animals in towns and cities, a process that is accompanied by many other activities such as processing and distributing food, collecting and reusing food waste.

INTRODUCTION OF GRAMMAR

	NAME	DEFINITION	EXAMPLE
Types of Verbs	**Verb**	A verb expresses an action, state or a condition in a sentence. These can be either verbs of doing or being.	The boy **ran** to the park. I **was** here long ago.
	Auxiliary Verbs	Auxiliary verbs help to form the various tenses, moods, and voices of other verbs. Auxiliary verbs: a form of be, do, have or a modal, used with a main verb to form different tenses.	She **is** reading a book. We **were** going to the beach. I **had** to eat the cake.
	Modal Verbs	These combine with other verbs to express necessity, possibility, and intention.	You **should** know what modal verbs are. He **might** not know the milk has gone bad. I **ought** to stop eating so much cake.
	Participles	They are words formed from verbs and look like verbs, but they are used as adjectives (i.e. they describe a noun). **Past participles** end in 'ed'; **present participles** end in 'ing'. These will always be non-finite.	In the house, there was a **screaming** witch. The worried man kept eating the cake. The **dying** woman reached for the hand of her **weeping** son.
	Gerunds	A gerund is a verb that is acting as noun in a sentence. It's made from a verb by adding '-ing.' Infinitives are the 'to' form of the verb. E.g. to ski. Gerunds are the 'ing' form of the verb which acts as a noun.	Skiing is fun. I enjoy skiing.
Finite or Non-finite	**Finite or Non-finite Verbs**	All verbs - regardless of their type - are either finite or non-finite when they are used. Finite verbs can only be used in some circumstances - if you change tense, the number or the person it will have to change. Whereas, a non-finite verb can be used in ANY number of circumstances. They won't change even if you alter the tense, the number or the person.	Ben sat on the bench, looking at the ducks. *First, identify the verbs…* In the park, Ben **sat** on the bench, **looking** at the ducks. *Then, change the tense…* In the park, Ben **sits** on the bench, **looking** at the ducks. Sat is finite - It had to change. Looking is non-finite - It didn't need to change
Types/parts of sentence	**Main Clause/ Simple Sentance**	A main clause/simple sentence has **one** - and only one - finite verb and a subject. (It can have as many non-finite verbs as you like.) A **subject** is the thing doing the *verb.*	The **crocodile** *ate* my friend. In the desert, **scorpions** *hide.* The **car crash** *was* unexpected and tragic.
	Object	A main clause *can* have an object, but it doesn't need one. The object is the thing that receives the *verb* - the subject affects it in some way.	The **girl** *kicked* the ball. The **man** *ate* all of the cake.
	Imperative Sentances	Imperative verbs act as an instruction or command. It *is* a sentence, but it only has a finite verb as the subject is implied. This means it is obvious who the sentence is referring to so that it doesn't need to be stated.	Sit down. Hand me that cake! Tell me when the pain started.
	Compound Sentence	Two main clauses linked together by a co-ordinating conjunction (FANBOYS). For/And/Nor/But/Or/Yet/So	The chips were delicious, but the fish was foul. I went to the shops to get some cake, so I could eat it for dessert. The man went dancing and the woman played Xbox.
	Complex Sentance	Made up of two parts: a main clause and one or more **subordinate clause.** A *subordinating conjunction* always comes at the start of the subordinate clause.	The boy sat down **after he heard the news.** Nobody saw the alien **because he was invisible.**

Types/parts of sentence	**Complex Sentence - Subordinate Fronted**	As above, but the subordinate clause comes before the main clause. It needs to be separated by a comma.	After he heard the news, **the boy sat down.** Because he was invisible, **nobody saw the alien.**
	Embedded Clause/Phrase	**Clauses** and phrases can be embedded in both main and subordinate clauses. They are usually embedded between the subject and the finite verb (of either the main or the subordinate clause). A comma is needed both before and after the embedded ingredient	Monkeys, that were jumping and calling, surrounded the car. **The nun, with whom I recently had a falling out with,** prayed to God.
	Fragments	A **fragment** is a word, that is punctuated as if it is a sentence. It is not a sentence because it doesn't have a subject and a finite verb. Fragments add emphasis, create a colloquial style and create realistic speech.	This is the worse day ever. **Ever.** She told me that if I didn't do my homework, she'd put me in detention. **Well, whatever.** "Where are you going?" **"Home."**
Phrases	**Phrases**	Whereas a clause has **BOTH** a subject and a finite verb, a phrase does not have **BOT**H a subject and a finite verb. A group of two or more words which usually do not contain a finite verb and which can act as a noun, verb, adverb, adjective or preposition.	This is a clause: after the **school day** ended. This is a phrase: after school.
	Prepositional Time Phrases	Phrases that indicated **when** something happens. A comma is needed to separate a (prepositional) time phrase from the rest of the sentence when it is before the main clause.	Yesterday, it was snowing heavily. It was snowing heavily yesterday.
	Prepositional Place Phrases	Phrases that indicated **where** something happens. A comma is needed to separate a (prepositional) place phrase from the rest of the sentence when it is before the main clause.	Under the hill, Bilbo Baggins lived. Bilbo Baggins lived under the hill.
	Present Participle Phrases (ING)	Begins with an ING present participle and it does not have a subject or a finite verb. They are separated from the main clause with a comma - BOTH when they are before the main clause AND when they are after it. The phrase must refer to the subject of the clause.	**Thinking about her hot dinner,** the woman shifted on the cold seat. **Watching their daughters play football,** the two mothers shouted support.
	Past Participle Phrases (ED)	As above, but begins with an ED past participle.	**Scared he might not make it,** the boy ran to the toilet. The young couple hugged, **thrilled at the news of their pregnancy.**
	Adverbs	An adverb can be placed at the beginning, middle and end of a sentence. Adverbs are used to qualify or modify the verb. At the beginning it needs to be separated by a comma; in the middle of the **subject and finite verb** it needs be embedded between two commas; at the end it does not need to be separated.	Suddenly, the building exploded. The building exploded suddenly. The building, suddenly, exploded.
Advanced Punctuation	**Semi-colon**	Semi colons link two main clauses to form one sentence. They need to be related by topic or action. It does not link a sentence to a subordinate clause or phrase. You do not use a capital letter after a semi-colon.	This is how you use a semicolon; it is easy when you know how. My mother is from Italy; my father is from Poland.
	Colon	Colons introduce information, expanding or embellishing a point that has already been made. The information on each side is essentially the same but after the colon, there's usually more detail. You can imagine the colon being a stand in for the phrase 'let me tell you about it'.	It is very cold outside: there are icicles handing from my front door and the post man arrived by sled! I am allergic to two things: eggs and honey.
	Dashes	The dash is a punctuation mark used for emphasis and effect: it can be used to replace a colon, a semicolon, an ellipsis, brackets or a comma.	The dash is a versatile tool - it can replace a semi-colon or colon. You might also want to know - if you're *really* interested - that it can replace commas too.

Notes

Notes

West Exe School

community • opportunity • success