

# Knowledge Book

Year 11

**Cycle Two**

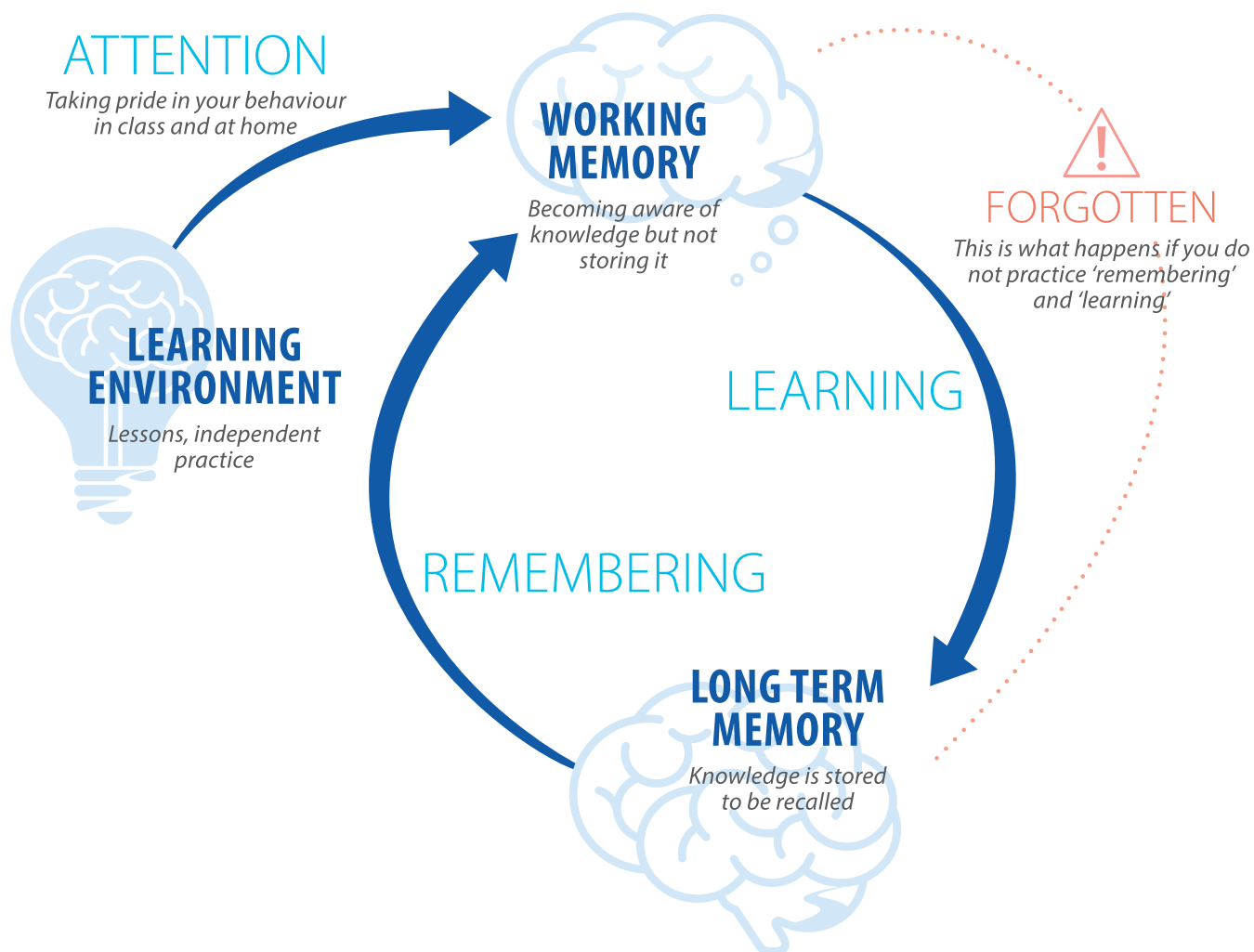
Name:



**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

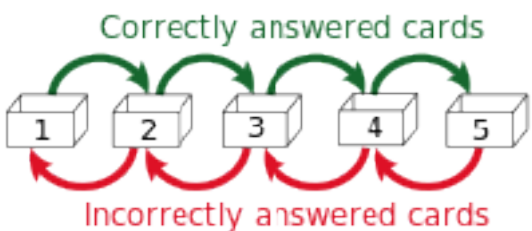
- Look, Cover, Write, Check
- Cornell Notes
- The Leitner Revision System

## 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.

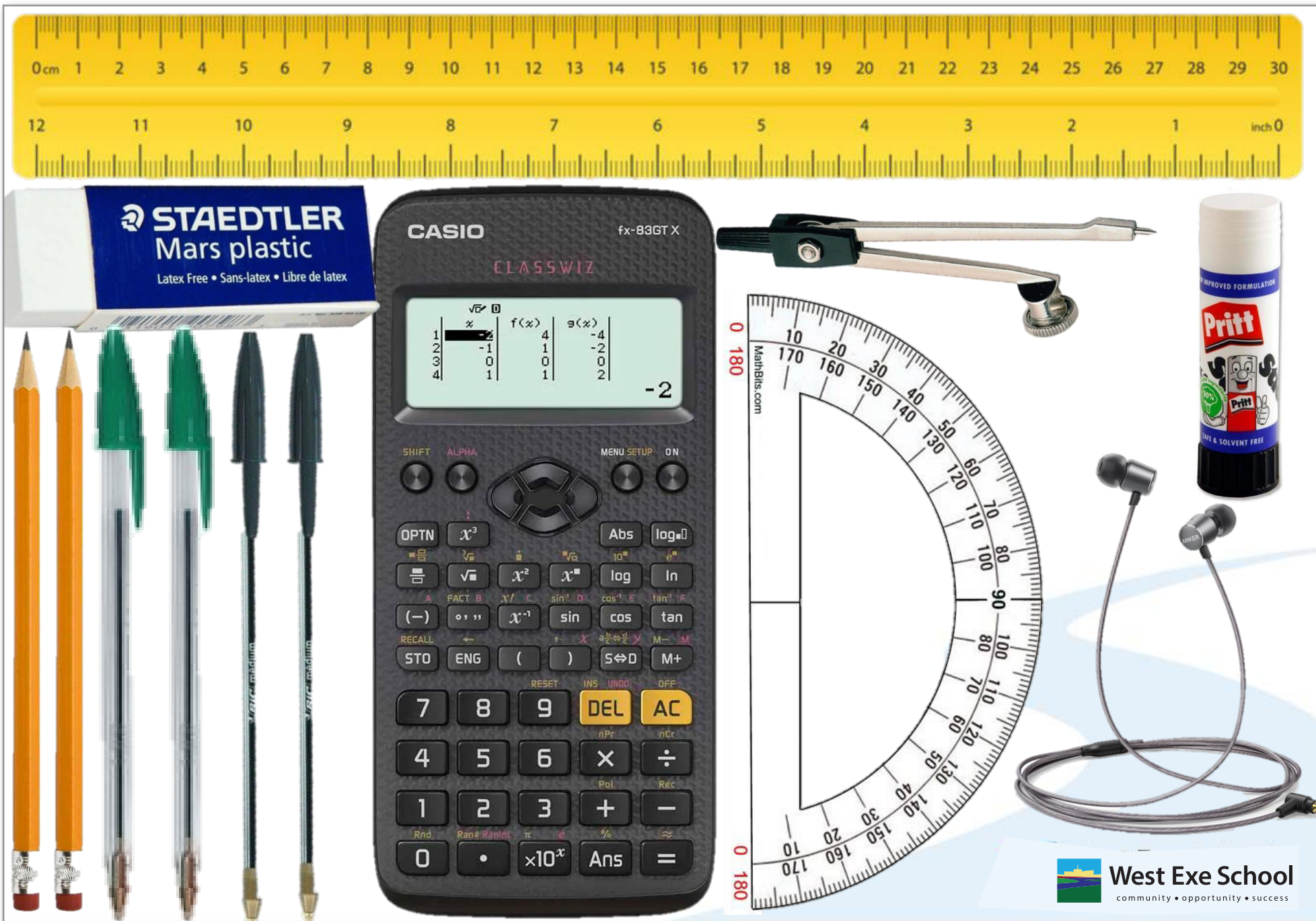
Spacing your learning and remembering means you are preventing that previous knowledge from being forgotten.

#### 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.**
- If you 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 one-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	Subject	GC Code	15 Mins	15 Mins	30 Mins	30 Mins	
Dashboard	bfwvh3av	Sociology	qxb2db3	Monday	Science	Spanish	Maths	
Art & Design	ipl4wla	Spanish	xdt25fy	Tuesday	Science	Spanish	Maths	
Biology	a5xoeix	Sport Vocational	Zcyfmc	Wednesday	Science	Spanish	Maths	
Business GCSE	3hdyvwx	Statistics	frkld3ni	Thursday	Science	Spanish	Maths	
Chemistry	zktbpu3	<b>Remember: Year 11 Maths – Sparx Extended Practice</b>				Friday +30 minutes	Science	Spanish
Classical Civilisation	ec4czsi	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.				Maths	Maths	
Creative Media	gktrnoi	<b>Languages Extended Practice:</b> To help you make great progress in Spanish, we recommend spending 15 minutes studying each day. Each vocabulary list has 20-40 words, and your vocabulary test will be marked out of 10 (five words in Spanish and five in English). If your score below 7/10, you'll be given another opportunity to review and retest a few days later during a catch-up session. If you can't make the catch-up session, you may need to attend an afterschool detention to complete it.				Maths	Maths	
Design technology	dajoo7v					English Language – exam question set on Online Platform	Geography or History Questions and task on Online Platform	
English	mt3dncv							
Engineering	perwky							
Geography	pnogxmd							
Food GCSE	wdyoopf							
Further Maths	po4ozki							
Health & Social Care	en77xli							
History	vcnd4i7	<b>Day</b>	<b>Action</b>	<b>Consequence if not achieved</b>				
Mathematics	2w3thxd	Friday	Sparx extended revision released.					
Music Vocational	Znljic	Sat/Sun	Use this time wisely to start your extended practice.					
Performing Arts	lv7f24u	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.				
Photography	gkp3qmr	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.				
Physics	l5xcmwx							
Science Higher	d6kkan5							
Science Foundation	wh5acdh							



## House Week, West Exe School & British Values Knowledge Organiser

	West Exe School Student Attributes	House Week Activities	Key Questions
House Week 1	<b>Kind</b> <b>Adaptable</b>	<ul style="list-style-type: none"> <li>School Parliament Elections</li> <li>House Charity vote</li> </ul>	<p>What is a good citizen?</p> <p>What behaviours would we expect of a good citizen?</p> <p>Do we need rules?</p>
House Week 2	<b>Curious</b> <b>Ambitious</b>	<p><i>Equality, Diversity &amp; Sustainability</i></p> <ul style="list-style-type: none"> <li>Charity fundraising</li> <li>Anti-bullying Ambassadors activities</li> <li>Green Team activities</li> <li>Mental health</li> <li>Celebrating diversity</li> </ul>	<p>What is tolerance?</p> <p>Is tolerance enough?</p> <p>How does our community proactively combat discrimination?</p>
House Week 3	<b>Resilient</b> <b>Proud</b>	<ul style="list-style-type: none"> <li>Transition focused activities               <ul style="list-style-type: none"> <li>Sports Day</li> </ul> </li> <li>Taster sessions (being brave and trying new things)</li> </ul>	<p>What does it mean to succeed?</p> <p>How do individuals demonstrate courage in our community?</p> <p>How is our individual liberty protected?</p>

**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 many forms including:**

- Emotional abuse
- Social media
- Social exclusion
- Threatening behaviour
- Name calling
- Cyberbullying
- Sexting
- Sexual exploitation



*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



# 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;

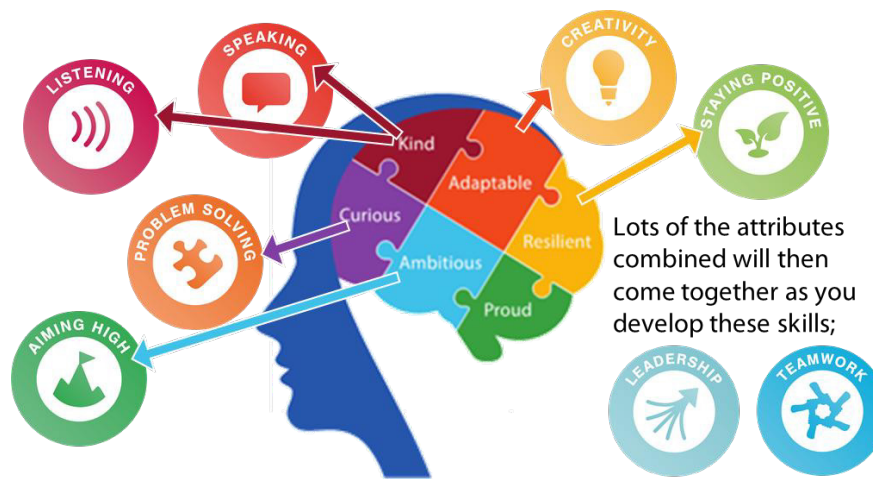
- Unifrog sessions
- Assemblies about "Next steps"
- 1:1 with a Careers Advisor
- Post-16 application support
- Teachers will talk about real life applications

## 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;

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



## 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.

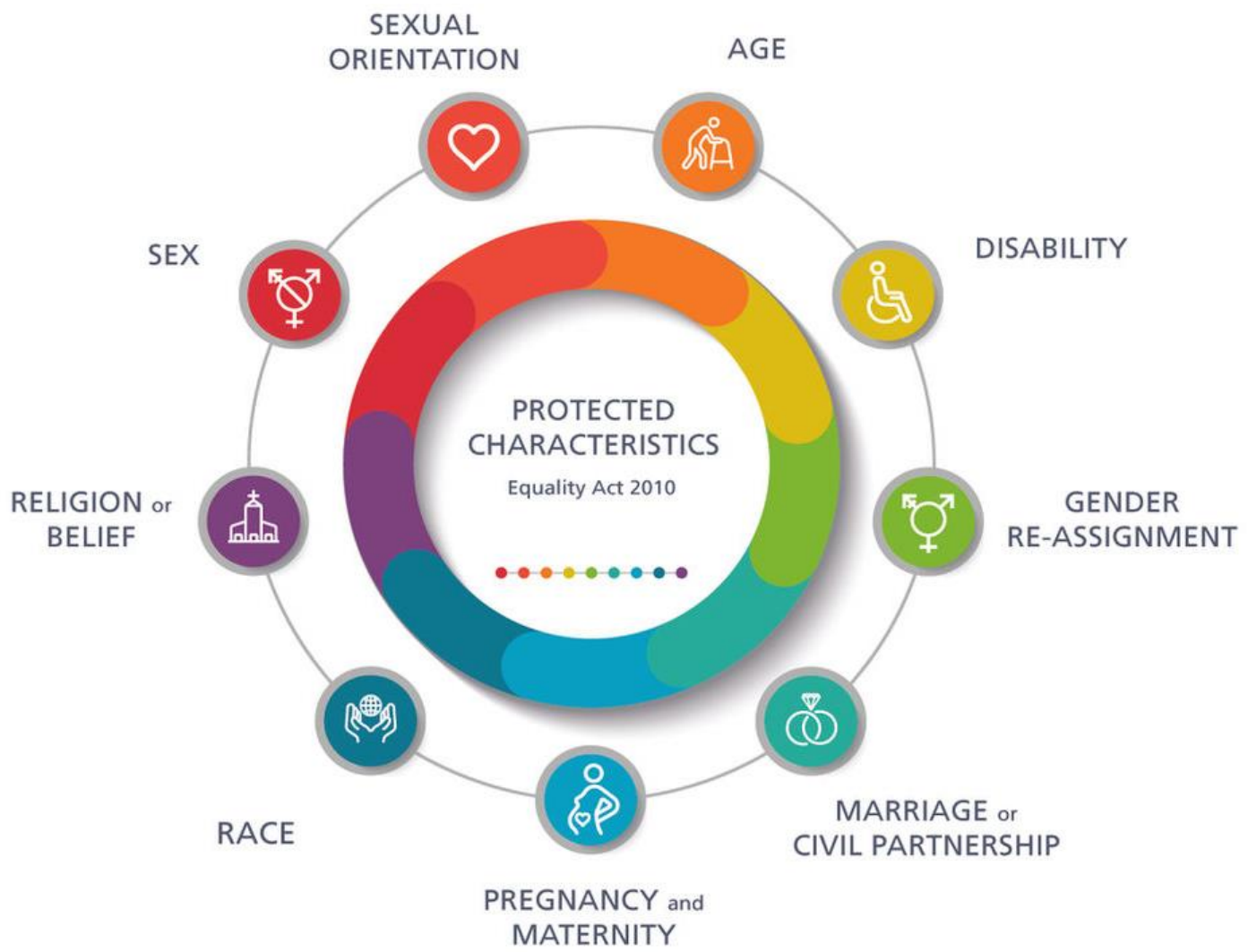


This is about having the freedom to make our own choices. In the UK, this means people have rights and freedom, as long as they do not harm another person's rights.  
At West Exe, this means your rights and individuality will be protected and celebrated. It also means you will have many exciting opportunities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

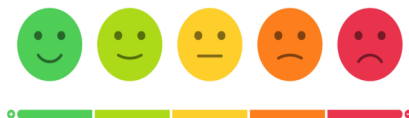
## Cycle 2 – January Attendance Reflection

My attendance so far this year is \_\_\_\_\_ %.

This equates to \_\_\_\_\_ days absent this year.

The main reasons for any absence are \_\_\_\_\_

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



**Boost your attendance** – tick 2 ways you are going to use to try and boost your attendance.

**Establish a routine:** Go to bed and wake up at the same time every day.

**Pack the night before:** Prepare your school bag, PE Kit and/or uniform in advance. Stop the morning panic.

**Stay healthy:** Prioritise sleep, good nutrition and exercise.

**Avoid distractions at night:** Limit screen time to ensure quality sleep.

**Communicate challenges:** Talk to your Tutor, Head of Year or other trusted adult if you are worried about school.

**Encourage each other:** Support your friends and encourage them to have good attendance so you can spend time with each other at school.



## Cycle 2 – February Attendance Reflection

My attendance so far this year is \_\_\_\_\_ %.

This equates to \_\_\_\_\_ days absent this year.

The main reasons for any absence are \_\_\_\_\_

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



**Attendance push and pull factors** – complete the table below during your welcome back session.

Push factors	Pull factors



# 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.

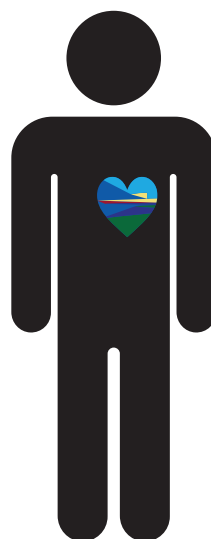
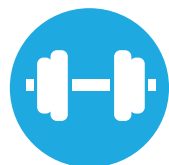
**Healthy body - healthy mind!** Links between physical activity and mental wellbeing. WES 10-a-day.

**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	Thinking (Mental) ME	Social ME
<p><b>Skill development:</b> Make a list of 5 new skills you have improved on during this cycle (e.g. shooting in handball or chopping technique in food). <input type="checkbox"/></p> <p><b>Attend an after-school club to help you develop and</b> improve these skills further. <input type="checkbox"/></p> <p><b>Developing fitness</b></p> <p>For one of the sports, you are covering in this cycle, <b>identify the main components of fitness needed.</b> <input type="checkbox"/></p> <p><b>Engage in periods of sustained physical activity.</b></p> <p>The NHS recommends that you do 2 types of physical activity each week:</p> <ol style="list-style-type: none"> <li>1. Aerobic exercise.</li> <li>2. Exercises to strengthen muscles and bones.</li> </ol> <p>Young people aged 5-18 should:</p> <ul style="list-style-type: none"> <li>• Aim to do 60 mins of moderate-vigorous physical activity each day across the week.</li> <li>• Take part in activities that develop movement skills, muscles and bones.</li> <li>• Reduce the time spent sitting or lying down - spread activity throughout the day. Monitor and regulate your screen time.</li> </ul> <p><b>Keep a log of your activity levels for a typical week - see if you meet the NHS guidelines.</b></p> <p><b>Monitor your screen time for a week.</b> <input type="checkbox"/></p> <p><b>Use equipment safely and hygienically.</b></p> <p><b>Think about the activities you are doing in this cycle and in each session be conscious of at least 2 safety considerations needed.</b> <input type="checkbox"/></p> <p><b>Cook a healthy meal from one of the recipes you have done in food this cycle.</b> <input type="checkbox"/></p>	<p>Making appropriate time for <b>rest, relaxation, and sleep</b> - Having routines that support positive mental health.</p> <p><b>Try to get 8-10 hours of good quality sleep a night!</b></p> <p><b>Rules, strategies and tactics.</b> Think about:</p> <ul style="list-style-type: none"> <li>• What are the main <b>rules</b> for the sport you are covering now? Write down 3 rules you have learnt. <input type="checkbox"/></li> <li>• Can you give an example of a <b>simple strategy or tactic</b> you have been using? <input type="checkbox"/></li> <li>• Can you give an example of a more <b>complex strategy or tactic</b> you have been using? <input type="checkbox"/></li> <li>• <b>Give 3 rules you must follow in the kitchen.</b> <input type="checkbox"/></li> </ul> <p><b>Terminology:</b></p> <p><b>Give 3 examples of terminology you have learnt in any of your SHN lessons.</b> <input type="checkbox"/></p> <p><b>Knowledge of muscles and bones</b> - how many muscles and bones can you label correctly? <input type="checkbox"/></p> <p><b>Being resilient</b> - positive growth mindset and never give up attitude- always looking to improve! <b>Give an example of how you have demonstrated resilience in your lessons.</b> If you found something challenging/ difficult but kept trying - How did you feel afterwards? <input type="checkbox"/></p>	<p><b>Leadership</b> - Taking responsibility within lessons (e.g. officiating, leading warm ups or practices or supporting food preparation in food lessons).</p> <ul style="list-style-type: none"> <li>• <b>Offer to be a leader for a lesson!</b> <input type="checkbox"/></li> <li>• <b>Help another person in a lesson to help them make progress.</b> <input type="checkbox"/></li> <li>• <b>Officiate a game.</b> <input type="checkbox"/></li> <li>• <b>Give feedback and support to another person.</b> <input type="checkbox"/></li> <li>• <b>Motivate and encourage others in a lesson.</b> <input type="checkbox"/></li> <li>• <b>Make an effort to INCLUDE another less confident person in your lesson. Help others learn - coaching.</b> <input type="checkbox"/></li> </ul> <p><b>Teamwork</b> - Working together - Work co-operatively, work collaboratively to achieve a goal. <input type="checkbox"/></p> <p><b>Give 2 examples of where you have shown good teamwork.</b> <input type="checkbox"/></p> <p><b>Communication</b></p> <p><b>Verbal</b> - give some feedback on a performance - <b>What went well? How could they improve it?</b> <input type="checkbox"/></p> <p><b>Non-verbal</b> - Use of whistle, signals as an official, use of a demonstration - <b>Try to do one of these each week.</b> <input type="checkbox"/></p> <div data-bbox="1665 1272 1846 1451" style="text-align: center;"> </div>

# 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...

**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...

**Mind**

**What am I worrying about?**

Is there anything I can do about it?

**No?** Let it go.

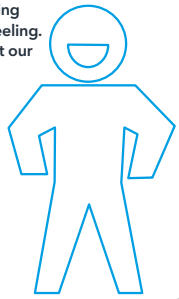
**Yes?** Do it now or make a plan about how and when you will do it.

**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:

- Stand/sit tall with your shoulders back
- Hold your head up
- Smile



**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...


**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...

**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.

**Tips for learning new skills**

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

**New habits and actions**


[Empty box for writing new habits and actions]


Year 11 CYCLE 2 MATHS - Foundation Formula Quiz

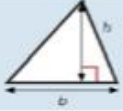
Foundation Tier

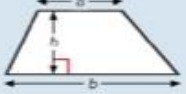
Weeks 1, 2 & 3

Areas

Rectangle =  $l \times w$  

Parallelogram =  $b \times h$  

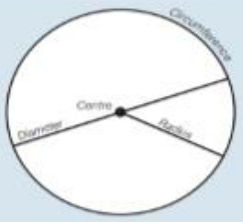
Triangle =  $\frac{1}{2} \times b \times h$  

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

Circles


Circumference =  $\pi \times \text{diameter} = \pi d$   
 $2 \times \pi \times \text{radius} = 2\pi r$

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




Right-angled triangles

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




Trigonometric ratios (new to F)

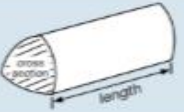
$\sin x^\circ = \frac{\text{opp}}{\text{hyp}}$ ,  $\cos x^\circ = \frac{\text{adj}}{\text{hyp}}$ ,  $\tan x^\circ = \frac{\text{opp}}{\text{adj}}$




Weeks 4, 5 & 6


Volumes


Cuboid =  $l \times w \times h$  


Prism =  $\text{area of cross section} \times \text{length}$  

Cylinder =  $\pi r^2 h$  

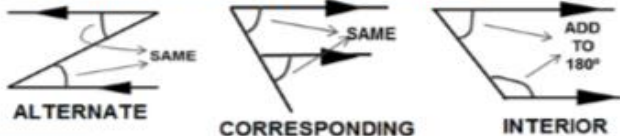
Compound measures

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

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

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

Angles formed by parallel lines



ALTERNATE, CORRESPONDING, INTERIOR

Weeks 7, 8 & 9

Constructing Pie Charts

The angle to draw for each sector is  
 $\text{Angle} = \frac{\text{frequency}}{\text{total}} \times 360^\circ$

Angles in Polygons  
 Sum of Interior Angles =  $(n - 2) \times 180^\circ$   
 Where  $n$  is the number of sides of the shape

Exterior Angles add up to  $360^\circ$

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

Interior + Exterior =  $180^\circ$

Other useful formulae

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

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

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

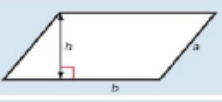
Foundation Formula Quiz

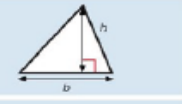
Year 11 CYCLE 2 MATHS - Higher Formula Quiz

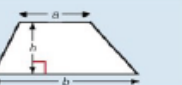
Higher Tier

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 =  $\pi \times \text{diameter} = \pi d$   
OR  
 $2 \times \pi \times \text{radius} = 2\pi r$  

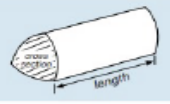
Area of a circle =  $\pi \times \text{radius squared} = \pi r^2$

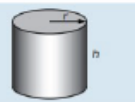



Area of a Sector  
 $A = \frac{\theta}{360^\circ} \times \pi r^2$

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

Volumes

Prism =  $\text{area of cross section} \times \text{length}$  

Cylinder =  $\pi r^2 h$  

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

Weeks 4, 5 & 6

Angles in Polygons


Sum of Interior Angles =  $(n - 2) \times 180^\circ$   
Where  $n$  is the number of sides of the shape


Exterior Angles add up to  $360^\circ$

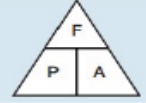
One exterior angle in a REGULAR polygon =  $\frac{360^\circ}{n}$

Interior + Exterior =  $180^\circ$

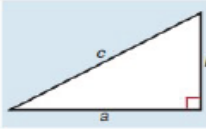
Compound measures

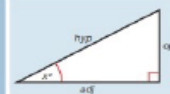
Speed  
speed =  $\frac{\text{distance}}{\text{time}}$  

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

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

Right-angled triangles

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

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

Angles formed by parallel lines



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

$a^0 = 1$   $a^{\frac{1}{2}} = \sqrt{a}$   
 $a^{-n} = \frac{1}{a^n}$   $a^{\frac{1}{n}} = \sqrt[n]{a}$

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

Straight lines

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

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

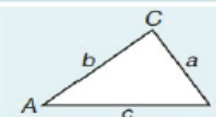
Perpendicular gradients multiply to give  $-1$ .

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 =  $\frac{1}{2} ab \sin C$



$x$	$0^\circ$	$30^\circ$	$45^\circ$	$60^\circ$	$90^\circ$
$\sin x$	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 2 COMBINED SCIENCE

Year 11 Combined Science Cycle Two	Week One	Week Two
<p><b>Exam topics</b></p> <p>1. Each exam is worth <b>16%</b> of your final grade</p> <p><b>Biology paper 1 (70 minutes, 60 marks):</b></p> <p>a) CB1 key concepts b) CB2 cells and control c) CB3: genetics d) CB4: natural selection and genetic modification e) CB5: health, disease and the development of medicines</p> <p><b>Chemistry paper 3 (70 minutes, 60 marks):</b></p> <p>a) CC1 states of matter b) CC2 separating and purifying substances c) CC3 atomic structure d) CC4 periodic table e) CC5 ionic bonding f) CC6 covalent bonding g) CC7 types of substance h) CC8 acids and alkalis i) CC9 calculations involving masses j) CC10 electrolytic processes k) CC11 obtaining and using metals l) CC12 reversible reactions and equilibria</p> <p><b>Physics paper 5 (70 minutes, 60 marks):</b></p> <p>a) CP1 motion b) CP2 forces and motion c) CP3 conservation of energy d) CP4 waves e) CP5 light and EM spectrum f) CP6 radioactivity</p> <p><b>Biology paper 2 (70 minutes, 60 marks):</b></p> <p>a) CB1: key concepts b) CB6: plant structures and their functions c) CB7: animal co-ordination, control and homeostasis d) CB8: exchange and transport in animals e) CB9: ecosystems and material cycles</p>	<p><b>Chemistry paper 4 (70 minutes, 60 marks):</b></p> <p>a) CC3 atomic structure b) CC4 periodic table c) CC5 ionic bonding d) CC6 covalent bonding e) CC7 types of substance f) CC9 calculations involving masses g) CC13 groups in the periodic table h) CC14 rates of reaction i) CC15 heat energy changes in chemical reactions j) CC16 fuels k) CC17 earth and atmospheric science</p> <p><b>Physics paper 6 (70 minutes, 60 marks):</b></p> <p>a) CP7 forces doing work b) CP8 forces and their effects c) CP9 electricity and circuits d) CP10 magnetism and motor effect e) CP11 electromagnetic induction f) CP12-13 particle model and forces &amp; matter</p>	<p>Calculations in paper 5- <b>physics:</b></p> <ol style="list-style-type: none"> <li>Distance(m) ÷ time (s)= <b>speed (m/s)</b></li> <li>(final velocity (m/s) -initial velocity (m/s))÷time(s)= <b>acceleration (m/s<sup>2</sup>)</b></li> <li>Mass (kg) x gravitational field strength (N/kg)= <b>weight (N)</b></li> <li>Mass (kg) x acceleration (m/s<sup>2</sup>)= <b>force (N)</b></li> <li>Thinking distance + braking distance= <b>stopping distance</b></li> <li>Useful energy output ÷ total energy input = <b>efficiency</b></li> <li>0.5 x mass (kg) x velocity<sup>2</sup> (m/s)= <b>kinetic energy (J)</b></li> <li>Mass (kg) x gravitational field strength (N/kg) x change in height (m)= <b>gravitational potential energy (J)</b></li> <li>Frequency (Hz) x wavelength (m)= <b>wave speed (m/s)</b></li> </ol>
	Week Three	Week Four
	<p>Calculations in paper 1-<b>biology:</b></p> <ol style="list-style-type: none"> <li>Eye piece lens x objective lens= <b>overall magnification</b></li> <li>Image size ÷ actual size= <b>magnification</b></li> <li>((final mass- initial mass)÷ initial mass) x100= <b>percentage change in mass</b></li> <li>Amount broken down (g) ÷ time taken (min)= <b>rate of reaction (g/min)</b></li> <li>Mass (kg) ÷ height<sup>2</sup>(m)= <b>Body mass index</b></li> <li>Hip (mm) ÷ waist (mm)= <b>hip: waist ratio</b></li> </ol> <p>Calculations in paper 3-<b>chemistry:</b></p> <ol style="list-style-type: none"> <li>Distance moved by spot ÷ distance moved by solvent = <b>Rf value</b></li> <li>Amount dissolved (g) ÷ volume of solution (dm<sup>3</sup>) = <b>concentration (g/dm<sup>3</sup>)</b></li> </ol>	<p>CB1 key concepts in biology:</p> <ol style="list-style-type: none"> <li>There are various ways in which substances can move:             <ol style="list-style-type: none"> <li><b>diffusion</b> is the movement of particles from an area of <b>high concentration to low concentration</b>. It is a <b>passive</b> process</li> <li><b>osmosis</b> is the movement of <b>water</b> molecules from an area of <b>high concentration to low concentration</b> across a <b>partially permeable</b> membrane. It is a <b>passive</b> process</li> <li><b>active transport</b> is the movement of substances against the concentration gradient (from <b>low to high concentration</b>). It requires a <b>membrane</b> and <b>energy</b></li> </ol> </li> </ol>

## Year 11 CYCLE 2 COMBINED SCIENCE

Week Five	Week Six	Week Seven																
<p>CB1 key concepts in biology:</p> <ol style="list-style-type: none"> <li><b>Enzymes</b> are <b>biological catalysts</b> which <b>speed up</b> the rate of reaction without being used up.                             <ol style="list-style-type: none"> <li><b>protease</b> breaks <b>proteins</b> into <b>amino acids</b>.</li> <li><b>amylase</b> breaks <b>starch</b> into <b>sugars</b>.</li> <li><b>Lipase</b> breaks <b>lipids</b> into <b>fatty acids and glycerol</b>.</li> </ol> </li> <li>Enzymes can be affected by three conditions:                             <ol style="list-style-type: none"> <li><b>temperatures:</b> low temperatures do not provide enough <b>activation energy</b> for reactions to occur, high temperatures <b>denature</b> enzymes.</li> <li><b>pH:</b> must be suitable for where enzyme is works in the body or it will <b>denature</b>.</li> <li><b>substrate concentration:</b> an increase in substrate concentration will increase ROR until a point when rate plateaus.</li> </ol> </li> </ol>	<p>CC3 atomic structure:</p> <ol style="list-style-type: none"> <li><b>Atomic structure:</b> <table border="1" data-bbox="818 377 1439 602"> <thead> <tr> <th>Particle</th> <th>Charge</th> <th>Mass</th> <th>Location</th> </tr> </thead> <tbody> <tr> <td>Proton</td> <td>+ 1</td> <td>1</td> <td>Nucleus</td> </tr> <tr> <td>Neutron</td> <td>0</td> <td>1</td> <td>Nucleus</td> </tr> <tr> <td>Electron</td> <td>- 1</td> <td>1/1835</td> <td>Electron shell</td> </tr> </tbody> </table> </li> <li>There is always the same number of protons &amp; electrons in an atom.</li> <li><b>Atomic mass</b> = protons + neutrons</li> <li><b>Atomic number</b> = protons</li> <li><b>Mendeleev</b> arranged the Periodic Table in order of increasing atomic mass but this isn't true in some cases because of the masses of some of the <b>isotopes</b>.</li> </ol>	Particle	Charge	Mass	Location	Proton	+ 1	1	Nucleus	Neutron	0	1	Nucleus	Electron	- 1	1/1835	Electron shell	<p>CC5 and CC6 ionic and covalent bonding:</p> <ol style="list-style-type: none"> <li><b>Ionic bonds</b> are formed by the <b>transfer of electrons</b> between <b>metals and non-metal</b> atoms to form <b>ions</b> (a group of atoms with positive or negative charge).</li> <li><b>Anions</b> are <b>negative ions</b> and are formed by the <b>addition</b> of electrons.</li> <li><b>Cations</b> are <b>positive ions</b> and are formed by the <b>loss</b> of electrons.</li> <li><b>Group 1</b> lose 1 electron and form 1+ ions.</li> <li><b>Group 2</b> lose 2 electrons and form 2+ ions.</li> <li><b>Group 6</b> gain 2 electrons and form 2- ions.</li> <li><b>Group 7</b> gain 1 electron and form 1- ions.</li> <li><b>Covalent bonds</b> are formed when a pair of electrons is <b>shared</b> between atoms.</li> <li>Covalent bonds form between <b>non-metals</b> and create <b>molecules</b>.</li> </ol>
Particle	Charge	Mass	Location															
Proton	+ 1	1	Nucleus															
Neutron	0	1	Nucleus															
Electron	- 1	1/1835	Electron shell															
Week Eight	Week Nine	Week Ten																
<p>Physics: acceleration core practical:</p> <ol style="list-style-type: none"> <li>Aim is to investigate the relationship between <b>force, mass and acceleration</b></li> <li><b>Independent variable</b> is the mass of the trolley</li> <li><b>Dependent variable</b> is the acceleration of the trolley measured by <b>light gates</b></li> <li><b>Control variables</b> are height of ramp, force on pulley</li> <li>A piece of <b>card</b> is needed on the top of the trolley to set off the light gates</li> <li>This investigation can be adapted to <b>investigate force</b> by changing the <b>masses</b> on the end of the <b>pulley</b></li> <li>You would need to <b>transfer masses</b> from the pulley to the trolley to ensure the <b>mass of the system</b> is kept the <b>same</b></li> </ol>	<p>Physics: wave core practical:</p> <ol style="list-style-type: none"> <li>Aim is to investigate the <b>suitability of equipment</b> needed to measure the <b>speed</b> of waves in a solid and a liquid.</li> </ol> <p>Waves in a liquid:</p> <ol style="list-style-type: none"> <li>a ripple tank is set up filled with water and a dipper attached to a motor</li> <li>the frequency is measured by <b>counting</b> how many waves are formed in 10 seconds</li> <li>this can be <b>improved</b> by taking a <b>slow motion video</b> and dividing the number by 10</li> <li>the wavelength is estimated using a <b>ruler</b> on the side of the tank</li> <li>this can be <b>improved</b> by <b>taking a photo</b> of the wave</li> </ol> <p>Waves in a solid:</p> <ol style="list-style-type: none"> <li><b>frequency app</b> held near bar = frequency</li> <li><b>length</b> of the rod x2 = wavelength</li> </ol>	<p>Physics: refraction core practical:</p> <ol style="list-style-type: none"> <li><b>Refraction</b> is the <b>change in direction</b> of a wave due to a <b>change in density</b></li> <li>The ray of light shining into the glass block is called the <b>incident ray</b></li> <li>The ray of light travelling through the glass block is called the <b>refracted ray</b></li> <li>The <b>normal line</b> is drawn at <b>90°</b> to the glass block</li> <li>The <b>angle of incidence</b> is measured between the normal line and incident ray</li> <li>The <b>angle of refraction</b> is measured between the normal line and the refracted ray</li> <li>When light enters a <b>more dense</b> medium it <b>refracts towards</b> the normal</li> <li>When light enters a <b>less dense</b> medium it <b>refracts away</b> from the normal</li> </ol>																



## Year 11 CYCLE 2 GEOGRAPHY - Urban Issues and Challenges

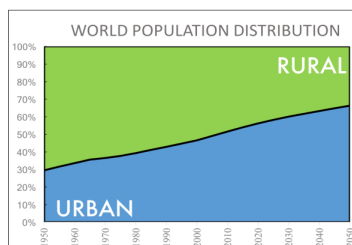
### WEEK 1

#### Urban trends

**Urbanisation:** the proportion of the world's population who live in cities.

By 2030, it is expected that 60% of the world's population will live in urban areas.

The proportion of people living in towns and cities varies in different parts of the world.



In most of the world's richer countries over 60% of the population live in cities. This includes Europe, North America and Oceania. Urbanisation rates are slowing as most people already live in cities. In south and south east Asia, it is 50%. All but six countries in Africa have urban populations of more than 20%.

The largest growth in urban population by 2050 will take place in India, China and Nigeria.

A **megacity** is a city with a population of more than 10 million. In 1975, there were only four megacities. At present, there are 33 megacities. The UN predicts that by 2050 there will be 60 megacities.

### WEEK 2

#### Why do cities grow?

Urbanisation is the result of the **natural increase** of a population (births minus deaths) plus migration.

Natural increase tends to be higher in LICs (such as Cambodia) and in some NEEs (such as India).

**Rural-urban migration:** the movement of people from the countryside into towns and cities.

#### Push factors

Farming is hard and poorly paid

Desertification and soil erosion makes farming difficult

Drought and other climatic hazards reduce crop yields

There are few doctors or hospitals and schools provide only a basic education

Rural areas are isolated due to poor roads.

#### Pull factors

There are more well-paid jobs

A higher standard of living

They already have friends and family there.

A range of entertainment

Public transport is better

There is a better chance of getting an education

There are better medical facilities.

### WEEK 3



#### Importance of Lagos

Lagos is the largest city in Nigeria. Population 15 million.



It is an important centre of trade and commerce, with about 80% of Nigeria's industry based in and around Lagos and it is now the main financial centre in West Africa.

#### Growth of Lagos

In 1960, the city had less than one million residents. By 1990, it was four million.

Lagos' expansion really took off during the oil boom in Nigeria in the 1970s, which drew thousands of people to the city for work. This is called rural-urban migration.

#### Push factors

Political unrest creates insecurity. The terrorist group, Boko Haram, is active in the north of Nigeria.

Land is degraded due to farming. Land in the Niger Delta region is polluted by the oil industry.

Another reasons for Lagos' growth is natural increase due to the youthful population.

### WEEK 4

#### Opportunities in Lagos

With about 10% of Nigeria's population, Lagos contributes about 30% of its GDP.

Lagos is building a new city on the coast called Eko Atlantic, destined to be the new financial hub for West Africa. It will be home to a 250,000 people and employ 150,000 more.

Unemployment is much lower than the rest of Lagos at 9.9%. About 40% of the workforce in the informal sector.

Olusosun rubbish dump sorts 3,000 tonnes of waste by hand per day with 500 workers. Without this, a lot of reusable rubbish would go to waste.

#### Challenges in Lagos

The lack of properly built homes and rapid rural-urban migration has forced millions to build their own homes in squatter settlements.

**Makoko slum** – On the edge of the lagoon, homes extend into the water on stilts. Known as the Venice of Africa. Lack basic facilities and sanitation. Around 250,000 inhabitants. Most make a living from the informal economy and fishing.

Average Lagos resident spends three hours per day in traffic. 40% of new cars in Nigeria are registered in Lagos. Air pollution rates five times higher than the limit.

### WEEK 5

#### Improving quality of life for the urban poor

**Tempohousing** – Constricting affordable housing using shipping containers. Working with a Netherlands based TNC. 20% cheaper than conventional buildings and 3-5 times quicker to construct – as little as two weeks.

**Eko Atlantic** – A new city suburb on the shores of Victoria Island. Protected by an 8km long sea wall, the city will have its own power and water supply and an independent road network. Tonnes of sand and heavy rock were poured into the ocean to provide 10 sq km of land for shops, offices and homes. Will provide employment, engaging the population in more formal job opportunities which will increase taxes for the government.

**Floating school** – Meet the educational needs of Makoko. Environmentally sustainable as it would withstand the rising sea levels associated with climate change. Classroom can host lessons for 60 children at a time and it would be used as a community centre.

The original school collapsed during heavy seasonal thunderstorms in 2016. It was a symbol of bottom-up development.

# Year 11 CYCLE 2 GEOGRAPHY - Urban Issues and Challenges

## WEEK 6



### Importance of London

Six international airports such as Gatwick and Heathrow.

529 foreign companies are listed in London.

London has a modern day importance as a world city.

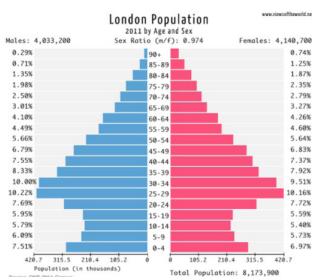
London is a centre for tourism – in 2015, the city welcomed 17.4 million international visitors.

London generates approximately 22% of the UK's GDP.

392,400 people are employed in City of London.

### Growth of London

In 1801, there were one million people in London. Today, there are approximately 8.7 million. It is expected to reach 10 million by 2030.



Most diverse city in the UK – 36.7% of the population were born abroad. The largest numbers have come from India, Nigeria and Jamaica, as well as Eastern Europe. Young people in their 20s to 30s move to London for work.

## WEEK 7

### Opportunities in London

London is one of the greenest cities in the world with 47% green space.

**Urban greening** is about how we increase and protect the green spaces we have in cities.

There are 30,000 allotments in London and 8.1 million trees!

Huge number of cultural attractions such as the British Museum and Buckingham Palace.

Events to celebrate multiculturalism such as the Notting Hill Carnival.

### Challenges in London

Social deprivation is a major problem: 2 million people live in poverty. Boroughs like Kensington have a much higher life expectancy than Newham.

There is a housing shortage, with London's population growing by 100,000 people every year, but only 20,000 new homes being built.

**Brownfield sites:** land that has been used, abandoned and now awaits some new use.

Commonly in inner cities areas e.g. old factories.

**Green belt:** land around cities on which there are strict planning controls to prevent urban development. Established in 1947.

## WEEK 8



### Urban regeneration: Olympic Park

Stratford lies in the Lower Lea Valley in the borough of Newham.

#### Before the regeneration

Unemployment was 7.8% in Newham compared to 4.5% in the rest of London.

Lower GCSE results and household incomes (£29,000 compared to £37,000 per year in the rest of London.

Lack of infrastructure. There was plenty of derelict, unused, overgrown land that used to be industrial sites.

The land was badly contaminated by chemicals.

There were 250 businesses on the site, employing 5,000 workers.

#### After the regeneration

The Athlete's Village was renamed East Village and provides 2,800 homes for local people.

The Olympic stadium is now the new home of West Ham United.

With over 100 hectares of open space, Queen Elizabeth Olympic Park is the largest new park in London for over a century.

The Aquatics Centre and Velopark are open to schools and the public.

A new commercial centre employs 25,000 people and Westfield employs 10,000.

## WEEK 9

### Features of sustainable living

**Social:** people have a say in how the city is run; people encouraged to walk; enough doctors and schools

**Economic:** Good quality, affordable homes are built; well-paid jobs.

**Environmental:** Rivers kept clear of waste/pollution; solar and wind energy to create electricity; lots of green, open space.

#### Sustainable transport strategies in London

In 2014, roughly 75 million passengers used the underground trains and buses in London each week.

**Boris Bikes** – self hired in public places in London for as little as £2 for short journeys, reducing traffic congestion. Found at 750 docking stations with 11,500 bikes in total.

**Congestion charge** – A fee charged to any vehicle travelling in central London between 7am and 6pm Mon-Fri. It has reduced journey times by 14%.

**Cycle Superhighways** – The 3-mile North-South route cost £160 million. Reduces pressure on the road, bus and rail and reduces serious injuries. Cost businesses £5.3 million a year with a challenge to meet delivery times. 40 miles of cycleways in total with 730,000 journeys being made by bike per day.

**ULEZ (Ultra Low Emission Zone)** – high polluting cars have to pay £12.50 to enter central London.

## WEEK 10

### Freiberg: a sustainable city

In 1970, the German city of Freiberg set a goal of urban sustainability. 220,000 inhabitants.

#### Social sustainability

People take part in decision making and there is a need to provide enough affordable homes.

Local people can invest in renewable energy resources. In one district, residents have invested over £5 million in windmills, solar energy, a hydro-electric plant and energy conservation.

Vauban, the inner city district, houses 5500 people in low energy buildings.

#### Economic sustainability

People come to attend conferences on sustainability, providing jobs for local people. Jobs also created in the research and manufacture of solar technology. More than 10,000 people employed in 1500 environmental businesses.

#### Environmental sustainability

350 community collection points for recycling

Energy provided for 28,000 homes from burning waste

More than 88% of packaging waste is recycled.

44,000 trees have been planted

The city plans to be 100% powered by renewable energy by 2050.

## Year 11 CYCLE 2 HISTORY - Cold War



## Cold War Knowledge Organiser



## Cold War Background

- **Grand Alliance** of USA, USSR, Britain and France in WW2 to defeat Nazi Germany.
- Met at **Tehran** (1943) and **Yalta** (1945) to agree how to defeat Germany and how Europe should look after the war.
- **Potsdam Conference** (1945) agreed to de-nazify Germany and split it (and Berlin) into 4 zones shared between the 4 allies. Agreed USA would have a sphere of influence in the West, and the USSR would have one in the East.

## Increasing Tension

## Long and Novikov Telegrams 1946

- USA and USSR used their ambassadors to secretly report on the other country.
- Both reported fears that their opponents were building up their armies.

## Truman Doctrine 1947

- President Truman declared that he feared the spread of communism and said it was a threat to freedom - the USA had the right to use its military and economy to fight the spread of communism.

## Marshall Plan 1947

- USA offered \$ 13 billion of aid to Europe to stop poverty leading to communism.
- This upset the USSR who thought USA was trying to bribe its satellite states.

Iron Curtain Speech 1947- Churchill declared Europe was divided into two spheres  
Cominform/Comecon.

- In response to the Marshall Plan the USSR united all communist parties together from satellite states- Cominform. Also tried to tie all satellite states together economically- Comecon

## The Berlin Blockade (1947-1948) and its consequences

- USSR worried the Western allies were trying to unite West Germany into Trinona.
- Blocked all road, rail and canal access to force them out of West Berlin.
- USA kept West Berlin supplies through a huge airlift of supplies for 11 months. USSR eventually backed down. Couldn't shoot down planes as would be act of war. **FRG and GDR**- Germany became officially divided into 2 different countries- FRG in West and GDR in East. Berlin also official split.
- **NATO**- USA and Western European military alliance against USSR.
- **Warsaw Pact**- USSR responded to NATO by creating own military alliance of satellite states in Eastern Europe.

## Hungarian Uprising 1956

- Encouraged by Khrushchev's Secret speech which criticised the hard, repressive policies of Stalin.
- Imre Nagy wanted to take Hungary out of the Warsaw Pact and make the country less repressive.
- USSR sent in troops and executed Nagy. Reforms undone. West didn't help at all despite promising to.

## The Berlin Ultimatum and Summits

- By 1958 3 million East Germans had crossed to the West (1/3 pop) Showed unpopularity of communism.
- Khrushchev wanted to take over West Berlin to stop this- 1958 demanded West recognise East as independent country, and Berlin to be demilitarised (**Berlin Ultimatum**) or he would hand control of Berlin transport to the East government.
- **Camp David Summit 1959.**
- Eisenhower and Khrushchev met and agreed to withdraw ultimatum.
- **Paris Summit 1960**
- USSR shot down US U2 spy plane. US tried to cover up and Khrushchev walked out of the meeting
- **Vienna Summit 1961**
- Khrushchev saw Kennedy as weak and reissued Ultimatum. Kennedy refused to make concessions, so nothing was agreed.

## The Berlin Wall

- 12 August 1961 East German Leader Ulbricht ordered a barbed wire fence around West Berlin to stop the refugee problem.
- Soon grew to 165km, cutting through streets and even buildings.
- Two walls separated by no man's land with booby traps, barbed wire, watch towers and guards with machine guns.
- People tried to escape- 130 killed, most famous was Peter Fechter.
- Khrushchev had to abandon plans for a united communist Germany and showed how unpopular communism was, but it did stop the refugee problem and showed communism was in control in the East.
- The Berlin Wall became a symbol of freedom and defiance against communism, and showed Khrushchev had accepted Western control in Berlin.
- Kennedy's '*Ich Bin Ein Berliner*' speech 1963 very popular.

## The Fall of the Berlin Wall

- 1989 Gorbachev refused to help East Germany stop protests.
- East Germany then announced border into West Berlin to be opened. Huge numbers cross the border and the wall is quickly pulled down.
- Germany officially reunited 1990.

## Year 11 CYCLE 2 HISTORY - Cold War

**The Cuban Missile Crisis 1962**

- 1959 Fidel Castro and Che Guevara topple the pro-American government in Cuba.
- US boycotted buying Cuban sugar, so Castro sold it to Khrushchev, and receive arms from USSR.
- 1961 CIA trained Cuban exiles to invade Cuba and overthrow Castro (**Bay of Pigs invasion**) but failed as USA backs out of air support and Cuban army superior to exiles. Makes USA look very bad!
- Khrushchev sent nuclear missiles to Cuba to help defend from future US attacks. USA discovers them in 1962
- Kennedy decides to blockade Cuba to stop missiles arriving from USSR.
- Khrushchev sent a telegram saying he would remove missiles from Cuba if USA wouldn't invade.
- Khrushchev then sent another telegram adding he wanted US missiles removed from Turkey too.
- Kennedy responded to first telegram publicly and second one secretly, increasing his reputation as a strong leader, making Khrushchev look like he backed down- maybe why he was dismissed as leader of USSR in 1954.
- Moscow-Washington **Hotline** set up and 3 treaties (**Test Ban 1963, Outer Space 1967, Non-Proliferation 1968**) signed to reduce testing and spread of nuclear weapons.

**Czechoslovakia 1968**

- Alexander Dubcek introduced reforms '*Socialism with a human face*'. Not anti- communist, just wanted more freedom. This became known as the **Prague Spring**.
- Brezhnev worried about reforms spreading so invaded with 500,000 troops. Czechs didn't fight back- learn their lesson from Hungary!
- **Brezhnev Doctrine**- actions of any individual country affected whole Eastern Bloc, so he would use Warsaw Pact troops to stop any reforms.

**Gorbachev's New Thinking**

- USSR couldn't afford war in Afghanistan or new missiles to compete with USA, and living standards were low.
- **Perestroika**- reform economy to include some capitalist ideas.
- **Glasnost**- introduce more openness and less corruption in government, allowed opposition to government.
- Brezhnev Doctrine would also be dropped.
- Reagan saw this as an opportunity to end the Cold War.
- **Reykjavik Summit 1986**- Gorbachev suggested phasing out nuclear weapons if USA gave up SDI. No agreement but improved relations.
- **Washington Summit 1987**- Agreed a treaty reducing abolishing intermediate range missiles.
- **Malta Summit 1989**- No new agreements but seen as the end of the Cold War as both sides announced peaceful intentions.

**Détente 1970s**

- After the Cuba crisis the USA and USSR wanted to get on better in the 1970s- this thaw (peaceful period) in the Cold War is called **détente**.
- Both needed to focus on economic and social problems at home, not war.
- **SALT 1 1972**- Strategic Arms Limitation Treaty. Limited the number of nuclear weapons both sides had.
- **Helsinki Accords 1975**- agreed to respect borders, work for closer relations and respect human rights.
- **SALT 2 1979**- Tried to introduce restrictions on missiles, but USA didn't trust the USSR after invasion of Afghanistan so US withdrew from talks.

**Soviet Invasion of Afghanistan 1979**

- There was a communist revolution in Afghanistan in 1978 and civil war broke out.
- USSR invaded in 1979 to help the communist government.
- USA very unhappy with this and ended détente. Supported Afghan rebels (Mujahedeen).
- **Carter Doctrine**- USA would use force to repel any threats in Persian Gulf area, and introduced sanctions.
- USA boycotted the Moscow Olympics in 1980. USSR then boycotted LA Olympics in 1984.
- Cost USSR \$8 billion a year and 15,000 troops were killed.

**Reagan's Second Cold War**

- Reagan became President of USA in 1980, called the USSR an 'evil empire' and ended détente.
- Planned the **Strategic Defence Initiative (SDI)** 1983 nicknamed 'Star Wars'- using satellites to destroy soviet missiles in space.
- USSR too poor to compete but didn't know USA hadn't actually made SDI yet.
- Reagan increased funding for the Cold War and supported anti- communist groups in South America.

**End of the Cold War**

- Without Brezhnev Doctrine, satellite states could introduce reforms without fear.
- Many hold new elections and elect non-communists (Poland, Hungary, Czechoslovakia, Bulgaria and Yugoslavia).
- 12 Soviet Republics left the USSR and formed the Commonwealth of Independent States after hard-line communists tried to remove Gorbachev.
- Gorbachev resigned on Christmas Day 1990, dissolving the USSR and ending communist rule in Europe.
- Warsaw Pact formally dissolved 1991.

## Year 11 CYCLE 2 WEST EXE BACCALAUREATE - Money Skills

Week 1 - Glossary	Week 2	Week 3	Week 4	Week 5																																																																																																																																											
<p><b>APR:</b> The Annual Percentage Rate is the cost of a loan (i.e. the original loan plus the interest) over the course of one year. The higher the APR, the more expensive the cost of borrowing. Example: If you borrowed £1,000 with 29.9% APR and paid this back over one year, you would pay £1,299 (£1,000 loan + £299 interest)</p> <p><b>Credit score:</b> A score given to you by a financial company, which indicates how likely you are to pay back any money you borrow</p> <p><b>Minimum wage:</b> The lowest amount per hour that a worker must be paid, based on their age</p> <p><b>Living wage:</b> A wage calculated according to the basic cost of living in the UK. Employers can choose to pay this</p> <p><b>Tax code:</b> A reference indicating the total amount of income you can earn in a year before paying tax, (which is your <b>personal tax allowance</b>). Example, a tax code of 1250L means that an employee can earn £12,500 (the number in the code times 10) before they start paying income tax</p> <p><b>National Insurance (NI):</b> The UK's system of compulsory payments by employees and employers to provide help from the state for people who are sick, unemployed or retired.</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Statement period</th> <th>Account Name</th> <th>Account Number</th> <th>Sort code</th> </tr> </thead> <tbody> <tr> <td>1 June to 30 June</td> <td>Mr N E One</td> <td>68564539</td> <td>00-00-00</td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Date</th> <th>Payment Type</th> <th>Details</th> <th>Paid Out</th> <th>Paid In</th> <th>Balance</th> </tr> </thead> <tbody> <tr> <td>1 June</td> <td></td> <td>BALANCE BROUGHT FORWARD</td> <td></td> <td></td> <td>£148.85</td> </tr> <tr> <td>5 June</td> <td>ATM</td> <td>ATM Hackney</td> <td>£20.00</td> <td></td> <td>£128.85</td> </tr> <tr> <td>8 June</td> <td>DR</td> <td>Charge</td> <td>£1.75</td> <td></td> <td>£127.10</td> </tr> <tr> <td>11 June</td> <td>POS</td> <td>Super supermarket</td> <td>£87.00</td> <td></td> <td>£40.10</td> </tr> <tr> <td>12 June</td> <td>DD</td> <td>Severn Trent Water</td> <td>£18.00</td> <td></td> <td>£22.10</td> </tr> <tr> <td>17 June</td> <td>CR</td> <td>Wages</td> <td></td> <td>£335.00</td> <td>£357.10</td> </tr> <tr> <td>21 June</td> <td>SO</td> <td>Anybank loan payment</td> <td>£50.00</td> <td></td> <td>£307.10</td> </tr> <tr> <td>24 June</td> <td>CHQ</td> <td>000478</td> <td></td> <td>£185.00</td> <td>£492.10</td> </tr> </tbody> </table>	Statement period	Account Name	Account Number	Sort code	1 June to 30 June	Mr N E One	68564539	00-00-00	Date	Payment Type	Details	Paid Out	Paid In	Balance	1 June		BALANCE BROUGHT FORWARD			£148.85	5 June	ATM	ATM Hackney	£20.00		£128.85	8 June	DR	Charge	£1.75		£127.10	11 June	POS	Super supermarket	£87.00		£40.10	12 June	DD	Severn Trent Water	£18.00		£22.10	17 June	CR	Wages		£335.00	£357.10	21 June	SO	Anybank loan payment	£50.00		£307.10	24 June	CHQ	000478		£185.00	£492.10	<p><b>ATM:</b> Cash machine</p> <p><b>Direct debit (DD):</b> A payment set up by the company to whom you are making a regular payment</p> <p><b>Debit (DR):</b> Money leaving your account</p> <p><b>Credit (CR):</b> Money going into your account</p> <p><b>Balance:</b> A running total of how much is in an account</p> <p><b>Overdraft:</b> A facility that allows you to spend more money than you have in the account</p> <p><b>Personal loan:</b> A loan, usually up to £25,000, used for things such as buying a car, etc.</p> <p><b>Mortgage:</b> A long-term loan usually used to buy a property. Most are repaid over 25 years</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Employee No</th> <th>Employee</th> <th>Pay Date</th> <th>Tax Code</th> <th>National Insurance Number</th> </tr> </thead> <tbody> <tr> <td>01236</td> <td>A.N. 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## INTRODUCTION OF GRAMMAR

NAME	DEFINITION	EXAMPLE
Types of Verbs	<b>Verb</b> A verb expresses an action, state or a condition in a sentence. These can be either verbs of doing or being.	The boy <b>ran</b> to the park. I <b>was</b> here long ago.
	<b>Auxiliary Verbs</b> 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 <b>is</b> reading a book. We <b>were</b> going to the beach. I <b>had</b> to eat the cake.
	<b>Modal Verbs</b> These combine with other verbs to express necessity, possibility, and intention.	You <b>should</b> know what modal verbs are. He <b>might</b> not know the milk has gone bad. I <b>ought</b> to stop eating so much cake.
	<b>Participles</b> They are words formed from verbs and look like verbs, but they are used as adjectives (i.e. they describe a noun). <b>Past participles</b> end in 'ed'; <b>present participles</b> end in 'ing'. These will always be non-finite.	In the house, there was a <b>screaming</b> witch. The worried man kept eating the cake. The <b>dying</b> woman reached for the hand of her <b>weeping</b> son.
	<b>Gerunds</b> 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	<b>Finite or Non-finite Verbs</b> 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. <i>First, identify the verbs...</i> In the park, Ben <b>sat</b> on the bench, <b>looking</b> at the ducks. <i>Then, change the tense...</i> In the park, Ben <b>sits</b> on the bench, <b>looking</b> at the ducks. Sat is finite - It had to change. Looking is non-finite - It didn't need to change
Types/parts of sentence	<b>Main Clause/ Simple Sentence</b> A main clause/simple sentence has <b>one</b> - and only one - finite verb and a subject. (It can have as many non-finite verbs as you like.) A <b>subject</b> is the thing doing the verb.	The <b>crocodile</b> ate my friend. In the desert, <b>scorpions</b> hide. The <b>car crash</b> was unexpected and tragic.
	<b>Object</b> A main clause can have an object, but it doesn't need one. The <u>object</u> is the thing that receives the verb - the subject affects it in some way.	The <b>girl</b> kicked the <u>ball</u> . The <b>man</b> ate <u>all of the cake</u> .
	<b>Imperative Sentences</b> 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.
	<b>Compound Sentence</b> 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.
	<b>Complex Sentence</b> Made up of two parts: a <u>main clause</u> and <b>one or more subordinate clause</b> . A <i>subordinating conjunction</i> always comes at the start of the subordinate clause.	<u>The boy sat down</u> <b>after he heard the news</b> . <u>Nobody saw the alien</u> <b>because he was invisible</b> .



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 <b>fragment</b> 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. <b>Ever.</b> She told me that if I didn't do my homework, she'd put me in detention. <b>Well, whatever.</b> "Where are you going?" <b>"Home."</b>
Phrases	Phrases	Whereas a clause has <b>BOTH</b> a subject and a finite verb, a phrase does not have <b>BOTH</b> a subject and a finite verb. <i>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.</i>	This is a clause: after the <b>school day</b> ended. This is a phrase: after school.
	Prepositional Time Phrases	Phrases that indicated <b>when</b> 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 <b>where</b> 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.	<b>Thinking about her hot dinner</b> , the woman shifted on the cold seat. <b>Watching their daughters play football</b> , the two mothers shouted support.
	Past Participle Phrases (ED)	As above, but begins with an ED past participle.	<b>Scared he might not make it</b> , the boy ran to the toilet. The young couple hugged, <b>thrilled at the news of their pregnancy</b> .
	Adverbs	An adverb can be placed at the beginning, middle and end of a sentence. <i>Adverbs are used to qualify or modify the verb.</i> At the beginning it needs to be separated by a comma; in the middle of the <b>subject and finite verb</b> 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 hanging 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 <i>really</i> interested - that it can replace commas too.







**West Exe School**

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