Knowledge Book

Year 11

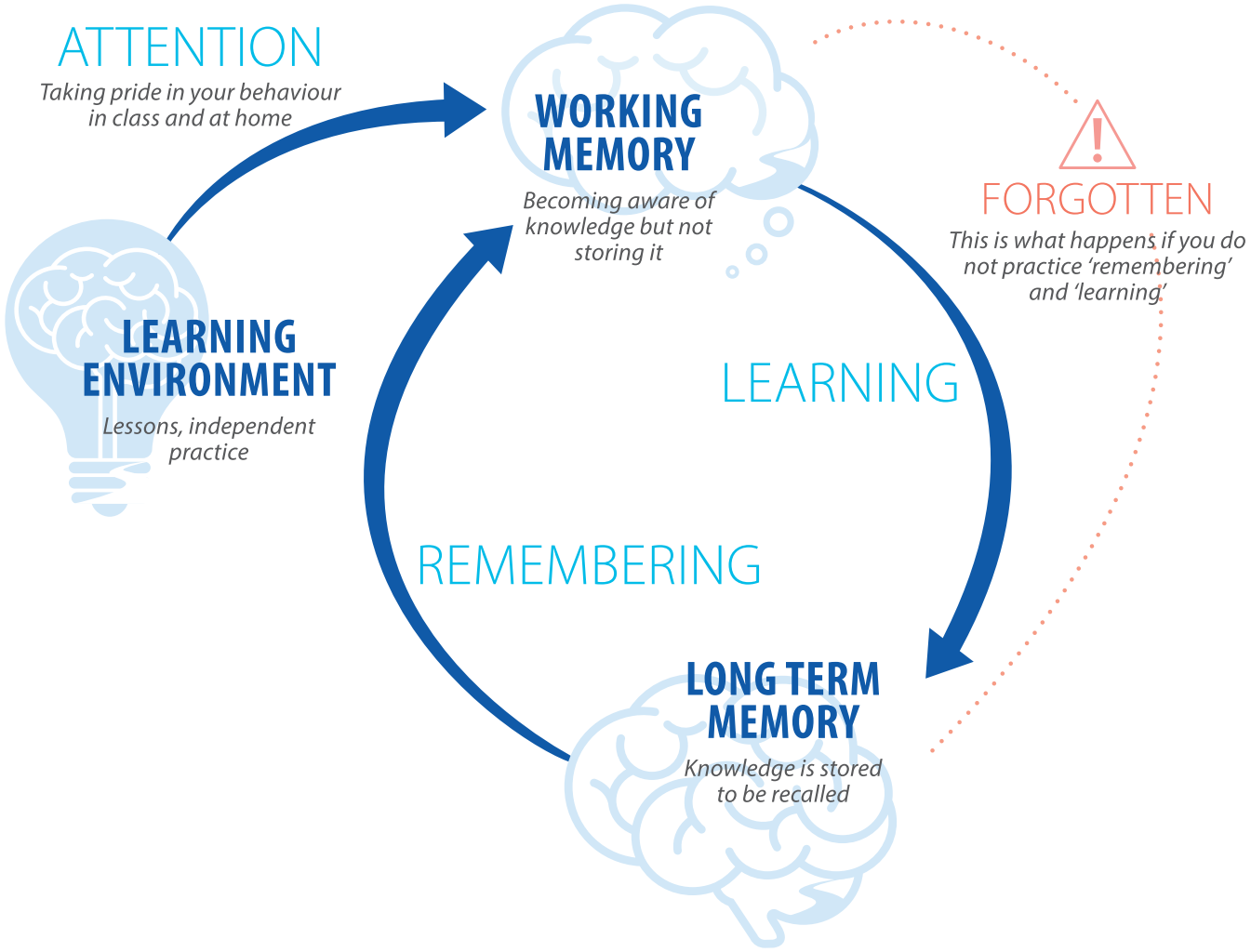
Cycle Two

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

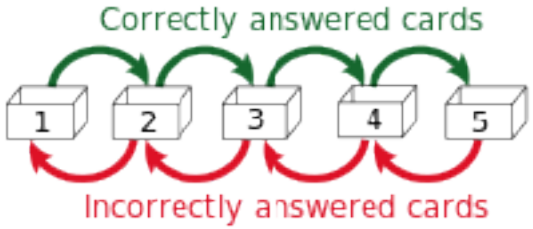
- Look, Cover, Write, Check
- Cornell Notes
- The Leitner Revision System

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 Skill

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 tie to widen your extended practice timetable to incorporate plenty of exam practice and daily revision.

- **Your are expected to spend 90 minutes on extended practice each day, with additional time on Friday and over the weekend for Science.**
- **There are four subjects to study each day. You should spent 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 exam questions set on the Online Platform, as well as complete your daily tasks on Sparx, Tassomai/Seneca.**
- **You will need to do your extended practice for each subject on the timetabled day. Your tutor will check this several times a week.**
- **If you have not competed your extended practice for each subject, you will receive a one-hour after school extended practice detention to be carried out later that day.**

	15 minutes	15 minutes	30 minutes	30 minutes
Monday	Science - Educake/Seneca	Spanish or French	Maths - SPARX	Option P
Tuesday	Science - Educake/Seneca	Spanish or French	Maths - SPARX	Geography or History *Questions and task on Online Platform*
Wednesday	Science - Educake/Seneca	Spanish or French	Maths - SPARX	Option Q
Thursday	Science - Educake/Seneca	Spanish or French	Maths - SPARX	Geography or History *Questions and task on Online Platform*
Friday	Science - Educake/Seneca + 30 minutes *Online Platform Task*	Spanish or French exam question	Maths - SPARX	English Language Exam *question set on Online Platform*

Remember: Year 11 Maths - Sparx Extended Practice

For year 11, there are some changes to your extended practice. The 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.

Day	Action	Consequence if not achieved
Friday	Sparx extended revision released.	Cornell notes and Sparx quiz
Sat/Sun	**Use this time wisely to start your extended practice.**	Cornell notes and Sparx quiz
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.
Tuesday	Time in tutor to work on target extended practice.	If you are struggling with your target you should come to extended practice club to get help.
Wednesday	Compulsory and target extended practice complete.	If you have not completed both compulsory and target, then you will be in detention afterschool, failure to comply will result in a Reset.


STAEDTLER
Mars plastic
Latex Free • Sans-latex • Libre de latex
CASIO
fx-83GT X
CLASSWIZ
SHIFT
ALPHA
MENU SETUP
ON
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Abs
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AC
Ans
MathBits.com
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HOUSE WEEK & OUR WEST EXE VALUES

HOUSE WEEK, WEST EXE SCHOOL & BRITISH VALUES

	West Exe School Values	British Values	House Week Activities	Key Questions
House Week 1	**Citizenship**  Through respect, responsibility and integrity we make the world a better place.	**Democracy** Understanding how citizens can influence decision-making through the democratic process. **Rule of Law** Appreciating that living under the rule of law protects individual citizens and is essential for their wellbeing and safety.	• 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	**Compassion**  Through kindness and empathy we care and show respect for ourselves and others.	**Tolerance and Mutual Respect** Accepting that other people having different faiths or beliefs to oneself (or having none) should be accepted and tolerated, and should not be the cause of prejudicial or discriminatory behaviour. Importance of identifying and combating discrimination.	• Charity Fundraising • Anti-bulling 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	**Compassion**  We are brave in our actions and ambitions in our dreams.	**Individual Liberty** Understanding that the freedom to choose and hold other faiths and beliefs is protected by law.	• 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?

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!

Speak

"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

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 CareerPilot account to explore some options.

One day I think these jobs might be interesting...

Opportunity

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

- Work experience
- Employer encounters
- CareerPilot sessions
- A Post-16 Destinations Fayre

Key: **Vocational Routes** **Academic Routes**

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.

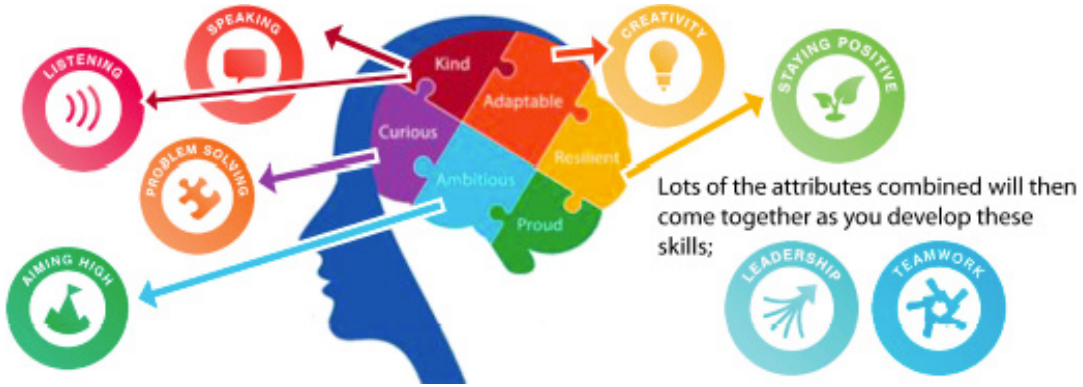
T Levels: Practical courses related to a specific job or career area.

A Levels: A mix of classroom learning and "on-the-job" experience preparing for a specific job. Main academic route after GCSEs. Can be taken alongside vocational qualifications.

International Baccalaureate (IB): Internationally recognised 2 year course prepares for University or employment.

Success

Our Talking Futures offer supports you to make informed decisions, by nurturing your confidence to think and talk about your future. Employers tell us that in addition to the qualifications you gain at school, there are certain skills they are looking for. These all fit link to our student attributes, so strive to be your #BestExe every day.



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…

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.

Stressors

What are my stressors?

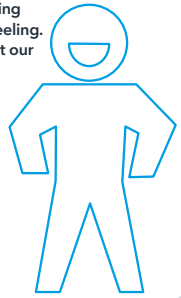
What stresses me out...

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?

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

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.

New habits and actions

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…

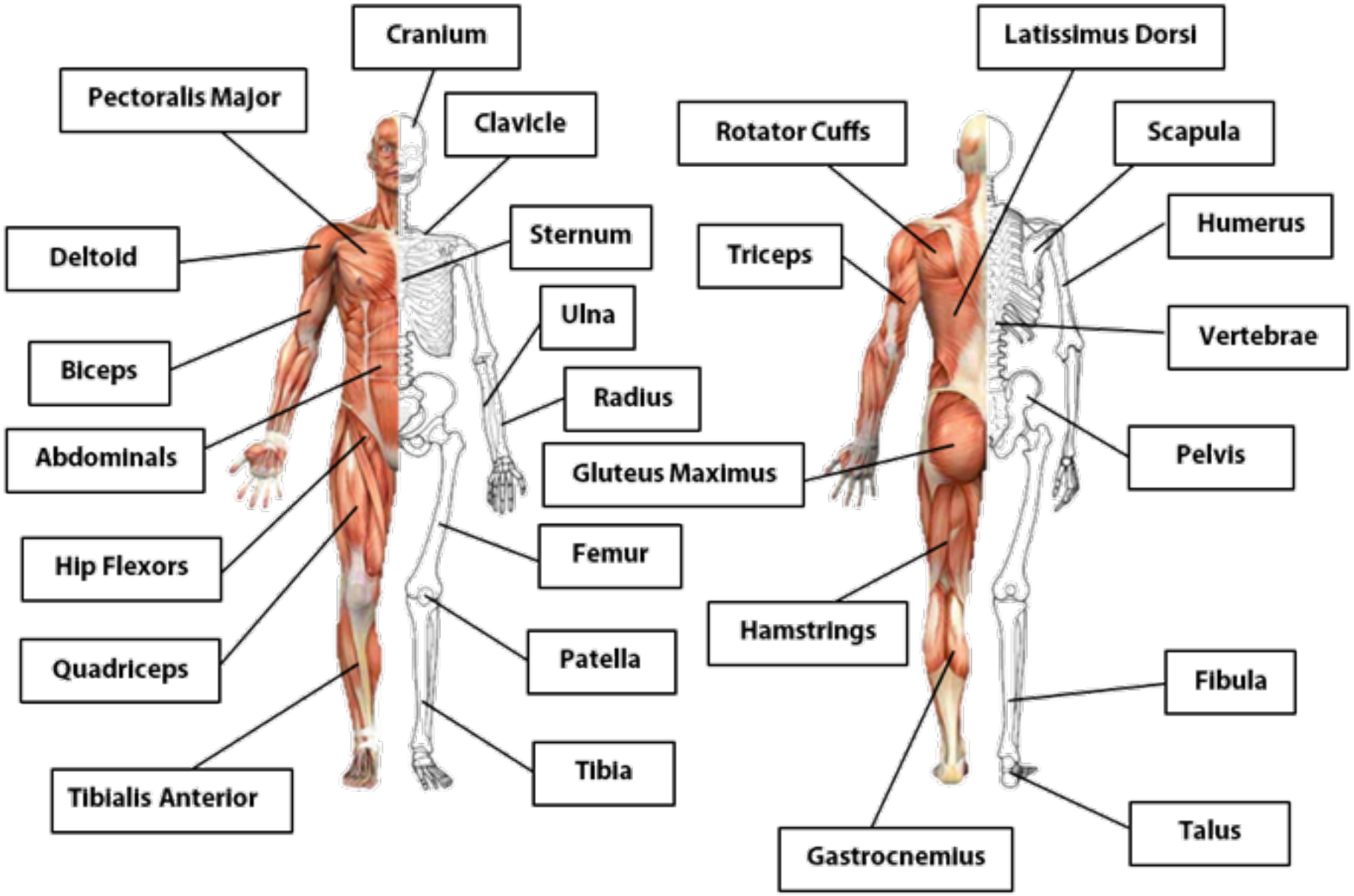
When we are organised we feel calmer. How could you be more organised?

What could you change at home

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.

SPORT, HEALTH AND NUTRITION - Muscles and Bones



YEAR 11 CYCLE 2 ENGLISH

YEAR 11 CYCLE 2 ENGLISH

YEAR 11 CYCLE 2 MATHS - Foundation Formula Quiz

Weeks 1, 2 &3

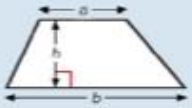
Areas

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 =

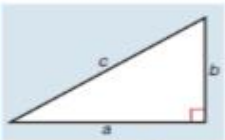
$\pi \times radius\ squared = \pi r^2$

Right-angled triangles

Pythagoras' Theorem

For a right-angled triangle,

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



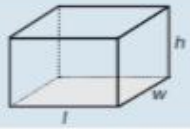
Trigonometric ratios (*new to F*)

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

Weeks 4, 5 & 6

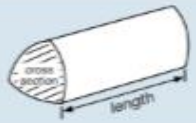
Volumes

Cuboid = $l \times w \times h$



Prism =

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



Cylinder = $\pi r^2 h$

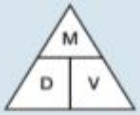
Compound measures

Speed

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

Density

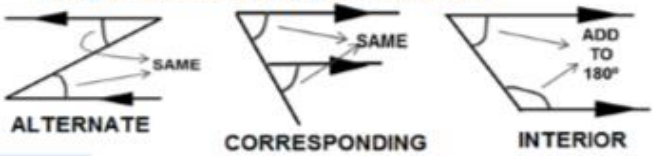
density = $\frac{mass}{volume}$



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

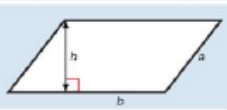
→ 2, 3, 5, 7, 11, 13, 17, 19, 23, 29 etc

YEAR 11 CYCLE 2 MATHS - Higher Formula Quiz

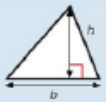
Weeks 1, 2 &3

Areas

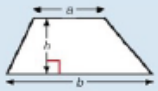
Parallelogram = $b \times h$



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

$A = \frac{\theta}{360°} \times \pi r^2$

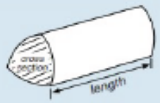
Length of an Arc

$A = \frac{\theta}{360°} \times \pi d$

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

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

Pressure

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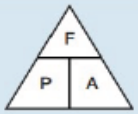
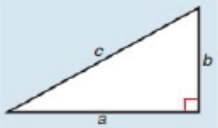


Right-angled triangles

Pythagoras' Theorem

For a right-angled triangle,

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



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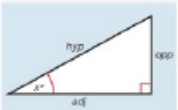
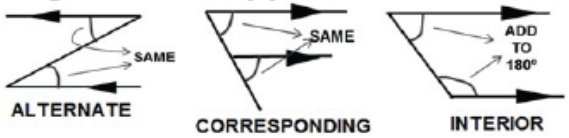


Angles formed by parallel lines



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

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

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

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

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

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: $-\frac{1}{m}$

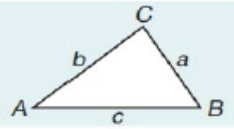
Perpendicular gradients multiply to give –1.

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 2 COMBINED SCIENCE

Year 11 Combined Science Cycle Two

Exam topics

1. Each exam is worth **16%** of your final grade

Biology paper 1 (70 minutes, 60 marks):
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

Chemistry paper 3 (70 minutes, 60 marks):
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

Physics paper 5 (70 minutes, 60 marks):
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

Biology paper 2 (70 minutes, 60 marks):
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

Week One

Chemistry paper 4 (70 minutes, 60 marks):
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

Physics paper 6 (70 minutes, 60 marks):
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 & matter

Week Two

Calculations in paper 5- **physics:**
1. Distance(m) ÷ time (s)= **speed (m/s)**
2. (final velocity (m/s) -initial velocity (m/s))÷time(s)= **acceleration (m/s^2)**
3. Mass (kg) x gravitational field strength (N/kg)= **weight (N)**
4. Mass (kg) x acceleration (m/s^2)= **force (N)**
5. Thinking distance + braking distance= **stopping distance**
6. Useful energy output ÷ total energy input = **efficiency**
7. 0.5 x mass (kg) x velocity^2 (m/s)= **kinetic energy (J)**
8. Mass (kg) x gravitational field strength (N/kg) x change in height (m)= **gravitational potential energy (J)**
9. Frequency (Hz) x wavelength (m)= **wave speed (m/s)**

Week Three

Calculations in paper 1-**biology:**
1. Eye piece lens x objective lens= **overall magnification**
2. Image size ÷ actual size= **magnification**
3. ((final mass- initial mass)÷ initial mass) x100= **percentage change in mass**
4. Amount broken down (g) ÷ time taken (min)= **rate of reaction (g/min)**
5. Mass (kg) ÷ height^2(m)= **Body mass index**
6. Hip (mm) ÷ waist (mm)= **hip: waist ratio**

Calculations in paper 3-**chemistry:**
1. Distance moved by spot ÷ distance moved by solvent = **Rf value**
2. Amount dissolved (g) ÷ volume of solution (dm^3) = **concentration (g/dm^3)**

Week Four

CB1 key concepts in biology:
1. There are various ways in which substances can move:

a) **diffusion** is the movement of particles from an area of **high concentration to low concentration**. It is a **passive** process

b) **osmosis** is the movement of **water** molecules from an area of **high concentration to low concentration** across a **partially permeable** membrane. It is a **passive** process

c) **active transport** is the movement of substances against the concentration gradient (from **low to high concentration**). It requires a **membrane** and **energy**

YEAR 11 CYCLE 2 COMBINED SCIENCE

Week Five

CB1 key concepts in biology:

1. **Enzymes** are **biological catalysts** which **speed up** the rate of reaction without being used up.

a) **protease** breaks **proteins** into **amino acids.**
b) **amylase** breaks **starch** into **sugars.**
c) **Lipase** breaks **lipids** into **fatty acids and glycerol.**

2. Enzymes can be affected by three conditions:

a) **temperatures:** low temperatures do not provide enough **activation energy** for reactions to occur, high temperatures **denature** enzymes.
b) **pH:** must be suitable for where enzyme is works in the body or it will **denature.**
c) **substrate concentration:** an increase in substrate concentration will increase ROR until a point when rate plateaus.

Week Six

CC3 atomic structure:

1. **Atomic structure:**

Particle	Charge	Mass	Location
Proton	+ 1	1	Nucleus
Neutron	0	1	Nucleus
Electron	- 1	1/1835	Electron shell

2. There is always the same number of protons & electrons in an atom.
3. **Atomic mass** = protons + neutrons
4. **Atomic number** = protons
5. **Mendeleev** 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 **isotopes**.

Week Seven

CC5 and CC6 ionic and covalent bonding:

1. **Ionic bonds** are formed by the **transfer of electrons** between **metals and non-metal** atoms to form **ions** (a group of atoms with positive or negative charge).
2. **Anions** are **negative ions** and are formed by the **addition** of electrons.
3. **Cations** are **positive ions** and are formed by the **loss** of electrons.
4. **Group 1** lose 1 electron and form 1+ ions.
5. **Group 2** lose 2 electrons and form 2+ ions.
6. **Group 6** gain 2 electrons and form 2- ions.
7. **Group 7** gain 1 electron and form 1- ions.
8. **Covalent bonds** are formed when a pair of electrons is **shared** between atoms.
9. Covalent bonds form between **non-metals** and create **molecules.**

Week Eight

Physics: acceleration core practical:

1. Aim is to investigate the relationship between **force, mass and acceleration**
2. **Independent variable** is the mass of the trolley
3. **Dependent variable** is the acceleration of the trolley measured by **light gates**
4. **Control variables** are height of ramp, force on pulley
5. A piece of **card** is needed on the top o the trolley to set off the light gates
6. This investigation can be adapted to **investigate force** by changing the **masses** on the end of the **pulley**
7. You would need to **transfer masses** from the pulley to the trolley to ensure the **mass of the system** is kept the **same**

Week Nine

Physics: wave core practical:

1. Aim is to investigate the **suitability of equipment** needed to measure the **speed** of waves in a solid and a liquid.

Waves in a liquid:

a) a ripple tank is set up filled with water and a dipper attached to a motor
b) the frequency is measured by **counting** how many waves are formed in 10 seconds
c) this can be **improved** by taking a **slow motion video** and dividing the number by 10
d) the wavelength is estimated using a **ruler** on the side of the tank
e) this can be **improved** by **taking a photo** of the wave

Waves in a solid:

a) **frequency app** held near bar= frequency
b) **length** of the rod x2 = wavelength

Week Ten

Physics: refraction core practical:

1. **Refraction** is the **change in direction** of a wave due to a **change in density**
2. The ray of light shining into the glass block is called the **incident ray**
3. The ray of light travelling through the glass block is called the **refracted ray**
4. The **normal line** is drawn at **90°** to the glass block
5. The **angle of incidence** is measured between the normal line and incident ray
6. The **angle of refraction** is measured between the normal line and the refracted ray
7. When light enters a **more dense** medium it **refracts towards** the normal
8. When light enters a **less dense** medium it **refracts away** from the normal

YEAR 11 CYCLE 2 GEOGRAPHY - Urban Issues and Challenges

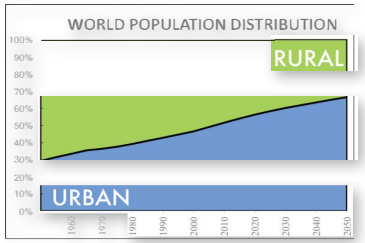
WEEK 1

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 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 in the largest city in Nigeria. Population 15 million.

It is an important centre of trade and commerce, with about 80% of Nigeria's industry is 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.

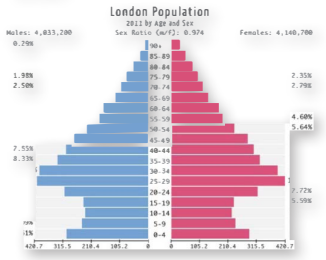
London is a centre for tourism – in 2015, the city welcomed 17.4 million international visitors.

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 (Ulta 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

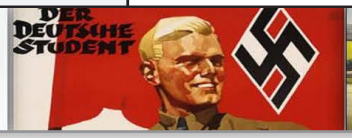
The city plans to be 100% powered by renewable energy by 2050.

YEAR 11 CYCLE 2A HISTORY - Life in Nazi Germany 1933-39

Learn these words in Weeks 1&2 → Week 3 → Weeks 4&5

Women and the Family	Education and Youth	Unemployment and Living Standards	Racial Policies	Persecution of the Jews
The 'ideal' Nazi woman: • Aryan • married with children • traditional clothes/hair • housewife & supporter of Nazi policy of Kinder, Kuche, Kirche (children, kitchen, church) **Nazi policies towards women:** 1. Removal from professional jobs. 2. Marriage Law of 1933 provided loans if wife left work. 3. At least 4 children encouraged. If so, the marriage loan was automatically repaid. 4. Motherhood medals given for 4 (bronze), 6 (silver) and 8 (gold) children. **Results:** The birth-rate and marriages rose. The number of employed *married* women fell, but female employment increased as Germany prepared for war.	**Changes in Education:** School was compulsory until 14 years. Special Nazi schools were set up for future leaders. Teachers were compelled to join the Nazi Teachers' League. **Curriculum:** Girls were taught to be housewives and mothers. Boys were trained to be soldiers. All subjects (even maths) were Nazified. Racism & anti-Semitism embedded. PE was increased to develop a healthy Aryan race. **Youth Groups:** All other youth groups banned and replaced by Hitler Youth (boys 14-18) League of German Maidens (girls 14-18). **Results:** Most accepted changes, many enjoyed them, but some (e.g. Edelweiss Pirates and Swing Youth) opposed.	**Policies to reduce unemployment:** 1. National Labour Service (RAD) = 6-months compulsory service for all men aged 18-25 2. Job creation schemes (e.g. the building of the autobahns (motorways). 3. Rearmament (building weapons) and conscription (increasing men in the armed forces). 4. 'Invisible unemployment' (e.g. removing Jews, women and concentration camp prisoners from figures to make the numbers look more impressive for the Nazis). **Workers' organisations:** • DAF (German Labour Front) replaced trade unions, which meant that strikes were no longer possible. • KdF (Strength Through Joy) provided leisure activities such as reduced-priced concert tickets and cruises (for the very few). • The Beauty of Labour improved working conditions, such as improving lighting in factories and introducing cooked meals in canteens. **Results**: Unemployment fell / wages rose. However, food prices rose, workers' rights were lost, and the Volkswagen scheme did not provide the cars that were promised to workers.	'Aryans' were considered to be the 'master race' by the Nazis. Eastern Europeans, Black people and gypsies seen as 'sub-human'. Jews were seen to be the lowest of all 'sub-humans'. **Treatments of 'undesirables':** • Homosexuals were imprisoned in concentration camps. • The mentally handicapped were sterilised. • Mentally and physically handicapped babies and children were killed as part of a so-called 'euthanasia' programme.	**Why did the Nazis target the Jews?** The Nazis used Jews as scapegoats and linked them to Communism, democracy, and the Treaty of Versailles. They built upon public jealousy and suspicion, especially during the Great Depression. **Timeline of main events:** **1933**: SA shop boycott, Jewish teachers and civil servants sacked. **1935**: Nuremberg Race Laws (lost citizenship, banned from public places, banned from relations/marrying non-Jews). **November 1938**: Kristallnacht = 100 Jews killed, 814 shops destroyed, 191 synagogues demolished. Jews forced to pay for damages.







YEAR 11 CYCLE 2B HISTORY - Medicine on the Western Front

Learn this information in: Week 6 (Battles and Trench System), Week 7 (Illnesses…), Week 8 (Chain of Evacuation), Week 9 (Key Words) and Week 10 (Sources)

Battles on the Western Front

First Battle of Ypres, October–November 1914
The British managed to hold on to Ypres, which was vital in maintaining access and control of the English Channel ports, but the Germans gained ground.

Battle on Hill 60, April 1915
The British tunnelled into and under the hill and exploded five mines from the tunnels, which enabled them to take the hill.

Second Battle of Ypres, April–May 1915
The Germans made very slight gains towards Ypres. The battle was notable as being the first time chlorine gas was used. It was first used by the Germans.

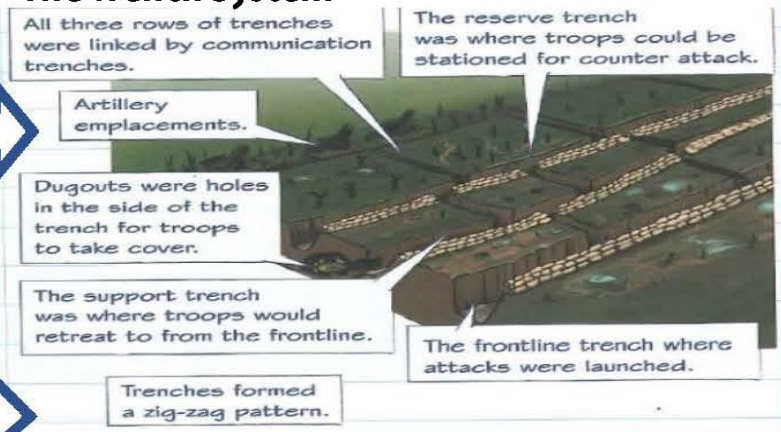
Third Battle of Ypres, July–November 1917
The British used a creeping barrage to make small gains to break out of the Ypres Salient. The awful weather left the ground waterlogged and many drowned.

The Somme, July–November 1916
Notable for the extremely high casualties on both sides, the battles on both sides of the River Somme saw two new strategies by the British – the creeping barrage and the first use of tanks – but these had little impact.

Arras, April–May 1917
In 1916, the British linked and expanded the underground tunnels, quarries and caves for the shelter and movement of troops. The tunnels were used to launch the battle, which was initially successful but ended with little progress and high numbers of casualties on both sides.

Cambrai, November–December 1917
This battle was notable for the first large-scale use of tanks, which were successful but were not backed up so the British were forced back.

The Trench System



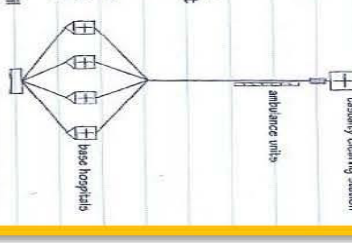
Illnesses and injuries

1. **Gas attacks** were greatly feared but were not a major cause of death. They caused (mostly temporary) blindness and coughing, and also burns. In July 1915, gas masks were given to all British troops. Before this, they protected their faces with cotton pads soaked with urine.
2. **Head injuries** were unexpectedly common and were mostly caused by shrapnel. By late 1915, the soldiers' soft caps were replaced by Brodie helmets, which reduced head wounds.
3. **Shell shock** caused a wide range of symptoms, including total mental breakdown. Some sufferers were accused of cowardice. Many were treated close to the Front but some were evacuated to British hospitals.

4. **Trench fever** produced flu-like symptoms, which could last for months and keep reoccurring. It was caused by lice so, in 1918, troops were deloused, which reduced cases.
5. **Trench foot** was caused by standing in waterlogged trenches. It could lead to gangrene, treated with amputation. To try and protect troops' feet, they were given whale oil and spare socks, pumps were used to drain trenches, and duckboards were added for soldiers to keep their feet above the water.
6. **Bullets** from rifles and machine guns could penetrate organs and fracture bones.
7. **High-explosive shells and shrapnel** were responsible for most deaths and injuries, removing limbs and causing major internal injuries.

The Chain of Evacuation

1. The **Regimental Aid Post** was close to the front line. The Regimental Medical Officer was helped by stretcher-bearers in administering first aid. He sent more serious injuries on to the next stage.
2. The **Field Ambulance** was a mobile medical unit of the RAMC, which set up **dressing stations**. They were about a mile back from the front line in derelict buildings, dugouts or tents. These stations were staffed by medical officers, orderlies and stretcher-bearers and, from 1915, some nurses. They could look after men for a week. Serious cases were sent straight to the CCS.
3. **Casualty Clearing Stations** were larger and better equipped, were situated in buildings several miles from the front line, and were staffed by doctors and nurses who prioritised treating life-threatening injuries to men who had a chance of survival. They became the most important place for efforts to reduce risk of infection until March 1918, when base hospitals regained that role.
4. **Base hospitals** were situated near ports on the coast. They had many medical staff, including doctors who specialised in certain treatments. Patients could stay for some time before returning to the front or being sent home by ship for further treatment.



YEAR 11 CYCLE 2B HISTORY - Medicine on the Western Front

Key words:

The Western Front: A line of trenches stretching from the English Channel to Switzerland through France and Belgium.
Shrapnel: Fragments of a bomb, shell, or other object thrown out by an explosion.
Tetanus and gas gangrene: Bacteria found in the soil of the Western Front that caused infections.
RAMC: The Royal Army Medical Corps
FANY: First Aid Nursing Yeomanry
Arras: The location of an underground military hospital with space for 700 beds.
Shells: Bombs packed with explosives.
Artillery: Large, cannon-like guns used to fire shells and missiles.
X-rays: Used extensively in the First World War to help locate bullets and shrapnel inside the body.
Carrel-Dakin solution: A new antiseptic method that replaced the bandaging up of wounds.
Sodium Citrate: A chemical which, when added to blood, allowed it to be stored for transfusions.
The Thomas Splint: Used to allow broken legs to reset and heal. Reduced the death rate from 80% to 20%.

Sources to help with an enquiry into medicine on the Western Front

A. Diaries and letters written at the time by medical staff	B. Medical articles by doctors published during the war in the *British Medical Journal* and other specialist journals	C. Recollections by soldiers written or recorded after the war ended
D. The records of Casualty Clearing Stations about admissions and cases	E. Photographs	F. Diaries and letters written by soldiers during the war
G. Newspaper accounts of fighting during the war	H. Statistics of different types of injuries and operations collected by the army command	I. Orders and instructions issued by the Chief Surgeons in overall charge of medical care for the British army
J. Recollections by medical staff written or recorded after the war ended	K. The records of individual hospitals, listing admissions and types of operations	L. The Service Records of individual soldiers

Learn this information in: Week 6 (Battles and Trench System), Week 7 (Illnesses…), Week 8 (Chain of Evacuation), Week 9 (Key Words) and Week 10 (Sources)

YEAR 11 CYCLE 2 LANGUAGES

YEAR 11 CYCLE 2 LANGUAGES

YEAR 11 CYCLE 2A WEST EXE BACCALAUREATE - Healthy Relationships

WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5
https://kidshealth.org/en/teens/healthy-relationship.html			http://goodguyswag.com/12-ways-build-healthy-teen-relationship/	
What makes a healthy relationship?	**What is an unhealthy relationship?**	**Why are some relationships so difficult?**	**12 ways to build a healthy teen relationship**	
Mutual respect. Respect in a relationship means that each person values the other and understands — and would never challenge — the other person's boundaries. **Trust.** Jealousy is a natural emotion. But how a person reacts when feeling jealous is what matters. There's no way you can have a healthy relationship if you don't trust each other. **Honesty.** It only takes one lie for a partner to find it hard to believe their BF or GF in the future which means the relationship will be on shaky ground. **Support.** It's not just in bad times that your partner should support you. In a healthy relationship, they are there when your world is falling apart and to celebrate with you when something good happens. **Fairness/equality.** You need to have give-and-take in your relationship. Things get bad really fast when a one person fights to get his or her way all the time. **Separate identities.** A healthy relationship involves compromises. But that doesn't mean you should feel like you're losing out on being yourself. **Good communication.** Can you talk to each other and share feelings that are important to you? Don't keep feelings bottled up. The right person will give you time to think before you talk and not pressurise you.	A relationship is unhealthy when it involves mean, disrespectful, controlling, or abusive behaviour. This kind of behaviour is never ok. Someone who has lived around violent or disrespectful behaviour may not have learned how to treat others with kindness and respect or how to expect the same treatment. **Warning Signs** When a partner uses verbal insults, mean language, nasty putdowns, gets physical or forces someone into sexual activity, it's a sign of verbal, emotional, or physical abuse. **Questions to ask to assess the health state of a relationship** "Does my boyfriend or girlfriend… • get angry when I don't drop everything for him or her? • criticize the way I look or dress, and say I'll never be able to find anyone else who would date me? • keep me from seeing friends or from talking to other guys or girls? • want me to quit an activity, even though I love it? • ever raise a hand when angry, like he or she is about to hit me? • try to force me to go further sexually than I want to? **If the answer to any of these is yes, the relationship is not healthy.** If someone can think of any way in which their partner is trying to control them, make them feel bad about themselves, isolate them from the rest of their world or harm them then it's time to get out, **fast**.	▪ It's hard for someone to love you when you don't love yourself. It's a big relationship roadblock when one or both people struggle with self-esteem problems. ▪ What if you feel that your girlfriend or boyfriend needs too much from you? If the relationship feels like a burden or a drag instead of a joy, it might be time to think about whether it's a healthy match for you. ▪ Intense relationships can be hard. Some people are so focused on their own developing feelings and responsibilities that they don't have the emotional energy it takes to respond to someone else's feelings and needs. ▪ Some teen relationships don't last very long. You might seem perfect for each other at first, but that can change. If this happens, it's better to part as friends than to stay in something that no longer feels right for one or both of you. ▪ Think about the qualities you value in a friendship and see how they match up with the ingredients of a healthy relationship. A relationship can be hard when each person has different values and is looking for different qualities.	A healthy teen relationship goes far beyond initial attraction and the "spark" in the beginning. It requires intention. It requires two well rounded people coming together and making choices that create a strong relationship. Here are 12 ways to build a healthy teen relationship: **1. Be honest and communicate.** Definitely don't lie to one another. That's a part of honesty, but it's only half of being honest. Honesty also entails being authentic all of the time. **2. Keep silent.** Talking about issues is vital. But unnecessary negative comments harm a relationship. Negative words unspoken can prevent a lot of unnecessary damage. **3. Keep social media out of your relationship.** When you have problems with your partner DON'T post your negative feelings online. Your friends on Twitter, etc. don't need to know what's going on. **4. Rely on more than just one another.** Mutual support is a sign of a healthy relationship. But you also need to rely on other people in your life, and each partner needs to understand and accept that. **5. Commit.** If you know from the start that the person you're dating isn't someone you can see yourself spending the rest of your life with, then why waste time? **6. Don't rush into it.** Rushing into commitment, or anything else in a relationship, doesn't often do much good. It may sound like a cliché, but, it also needs to be understood that love is a marathon.	**7. Respect one another.** Don't take your partner for granted, don't pressure them and don't flirt with other people… simply respect your partner, their views and boundaries. **8. Set boundaries.** Setting personal boundaries and standards is a mark of a truly mature person. Talk these over and agree them in the beginning of the relationship. **9. Respect the parents.** Accept their rules and don't try to break them. Going beyond respect and also getting to know the parents can do the relationship a lot of good too. **10. Be fully present.** Never make your partner feel alone. Being present for one another is a sign of love. Whether it's for moments of happiness, or the moments when all is falling apart; be present. It makes all the difference. **11. Be a team.** Build each other up and encourage one another often. Work like a team. Support one another and reach out to help other people. **12. Help each other to become better people.** Don't go nagging the other person about their faults and how they need to "fix" them. You are not perfect! Talk to each other in a mature way and help each other.

YEAR 11 CYCLE 2B WEST EXE BACCALAUREATE - Study Skills and Preparing for Exams

WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10
7 Revision tips to help you prepare for your GCSEs	**Advice from top performing students**	**Coping with stress**	**Mindfulness**	**12 Steps for succeeding on the day of the exam**
1. Be organised: Write down the subjects and topics you'll be revising as well as question formats, techniques and the examiner's marking criteria. **2. Create a realistic revision timetable:** This adds structure to your studying and allows you to organise your time in a way that suits you and your life. **3. Understand your learning style:** Once you know the method of learning that suits you best, choose appropriate techniques that will make revising and recalling information much easier. **4. Take regular breaks:** Aim for 30-45 minute sessions with short breaks in between and ideally no more than 4 hours of study a day. **5. Practice papers are your friend:** Do as many as you can. They help you become familiar with question style, exam format, and time restraints. **6. Work in study groups:** You can quiz each other, share notes, discover new ways of revising and explain topics in new ways to each other. **7. Mix it up:** Mixing up study habits and methods can help motivation, and keep your brain alert and active while revising.	**Check past papers:** "Practice is key, so getting your hands on past paper questions and answers is very important." **Be prepared:** "If you're unsure what will come up in an exam, get a copy of the syllabus off the internet and literally tick off every single thing on the list." **Make it more manageable:** "Breaking down the exam into lots of little sections makes revision less daunting, and you'll know exactly where you stand in terms of how much you've done." **Don't be tempted to cram:** "Revise continually. Don't leave it until a few weeks before an exam. Revise the stuff you're learning as you learn it. Go home from school and make flash cards and posters and so on. That way, when you come to the exam period, you already know most of it." **Create a plan:** "I wrote out every topic within I needed to revise, then estimated how many sessions of 50 minutes I would need to revise... I then put this into a timetable so when it came down to revising I wouldn't spend ages just flicking through any book… but would know exactly what area I was to cover in that time"	Getting stressed during Year 11 is totally normal. The most important thing is that you don't try to deal with it by yourself. • Remind yourself that a certain amount of stress is motivation. • Talking to friends will help you realise you're not alone and they'll give you support • Talk to your teachers or parents. They can help you problem solve and find practical solutions • Do some revision with friends, so you don't risk feeling isolated and alone • Practice mindfulness and concentrate on your breathing **If you're stressed...** • Don't underestimate how important it is to look after yourself • Take time out. Don't spend all your time revising, do fun things and get outside • Stay calm and focused. GCSEs are important, but your health is way more important • Exercise! It's a great way to de-stress and feel happier • Get good sleep. Try to have a sleep routine. Don't use your phone at night. • Take short, regular breaks to do something that relaxes you and allow your brain to recharge!	Mindfulness is a way of helping you relax. Done correctly, it can help decrease your stress and anxiety about your GCSEs. It's true that being in a relaxed state of mind can help you to revise more effectively and at least reduce the natural stress you will be feeling. Below is a guide to mindfulness: 1.Find a time when you unlikely to be interrupted. 2.Choose a quiet, calm and soothing space for your mindfulness practice. 3.Make a conscious effort to focus on the present, and not the past or the future. 4.Always return to focusing on your breath and listening to the sounds around you. 5.Allow yourself to do nothing and just be, let your mind and body recharge so you can be productive when you have to work. 6.Don't plan the future. Don't look at the time. 7.Return to the present. Accept there is nothing you can do to change the past or what may happen in the future. 8.Don't be too hard on yourself when your mind wanders off. Take some deep breaths and reset your focus to be in your mindfulness practice.	**Tip #1** Wake up early so you can eat breakfast and don't have to rush getting ready. **Tip #2** Check your exam timetable regularly **Tip #3** Have a balanced breakfast and eat nothing risky. Bananas are a good option. **Tip #4** Before leaving home, check you have what you need, e.g. notes, equipment **Tip #5** Avoid people who are panicking. **Tip #6** Remember to write your full name on the exam paper. **Tip #7** Read all the questions carefully before starting and quickly plan how much time to allocate to each. **Tip #8** You don't have to answer the questions in order. Start by answering the ones you feel most confident about. **Tip #9** If your brain freezes, just start writing anything and you will soon start remembering more details. **Tip #10** Don't spend more time than you planned on a section. Leave any questions you are unsure about for the end. **Tip #11 U**se every minute of the exam and if you have time left, check your answers. **Tip #**12 Stay calm, you have done your revision so have nothing to fear!

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

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