

Knowledge Book

Year 11

Cycle One

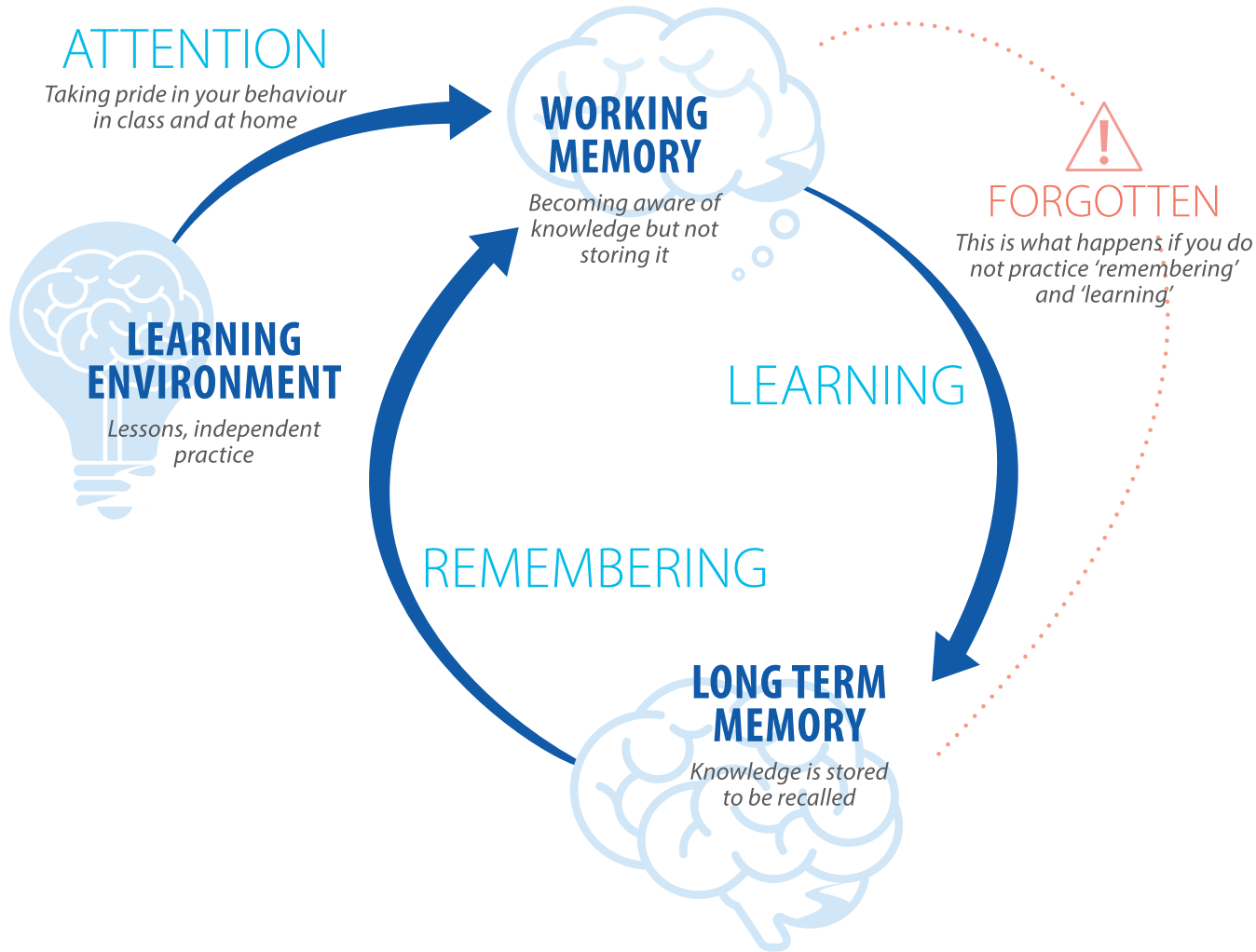
Name:



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

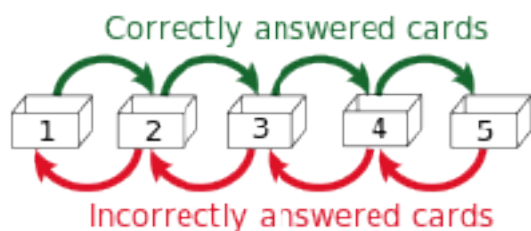
- Look, Cover, Write, Check
- Cornell Notes
- The Leitner Revision System

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

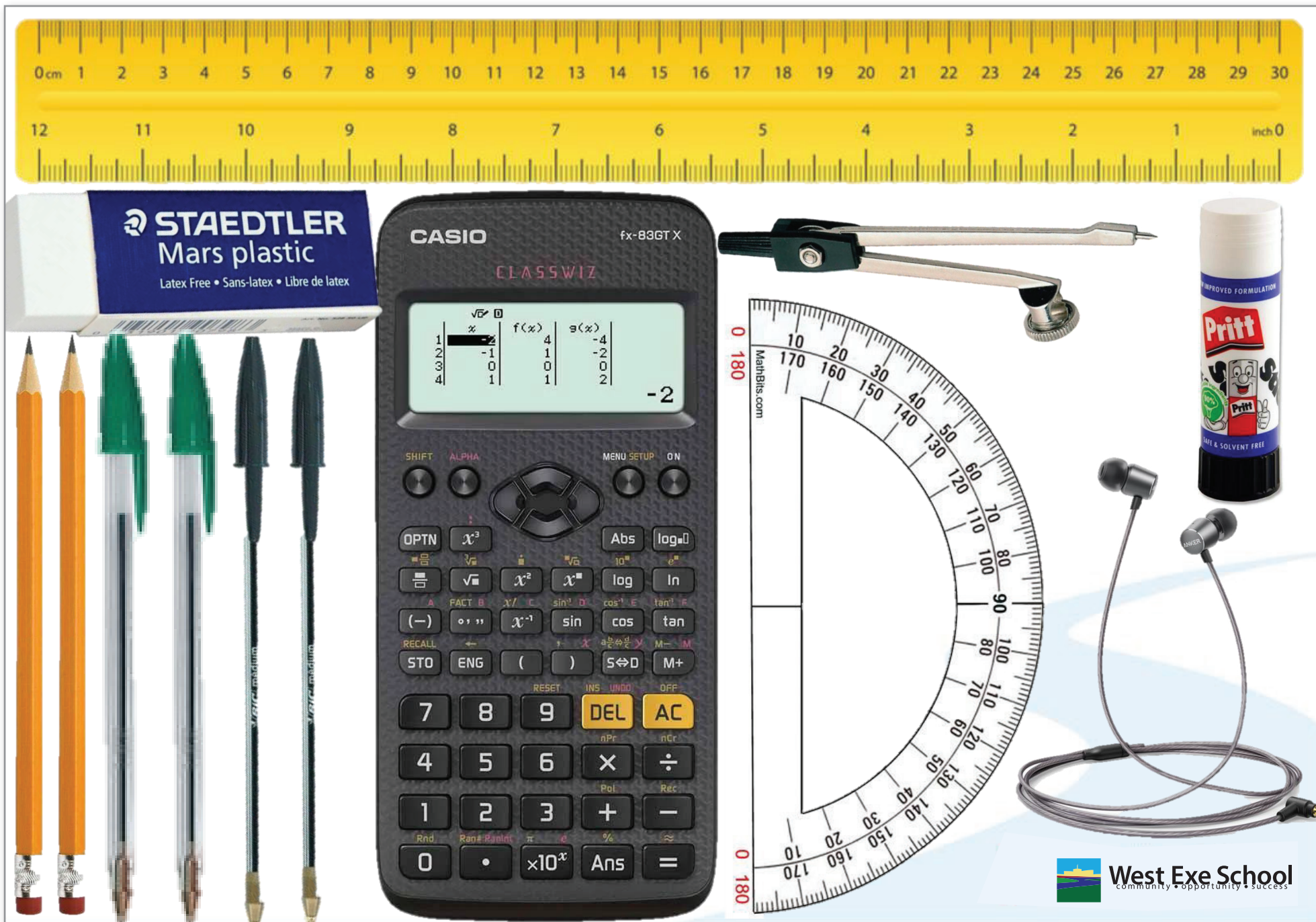
- You are expected to spend 90 minutes on extended practice each day, with additional time on Friday and over the weekend for Science.
- There are four subjects to study each day. You should spend the correct amount of time allocated to each subject.
- You will be assessed on the knowledge in your knowledge book for every subject throughout each cycle. In addition, you will be expected to answer 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 completed 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. This 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.



HOUSE WEEK, WEST EXE SCHOOL & BRITISH VALUES

	West Exe School Values	British Values	House Week Activities	Key Questions
House Week 1	<p>Citizenship</p>  <p>Through respect, responsibility and integrity we make the world a better place.</p>	<p>Democracy</p> <p>Understanding how citizens can influence decision-making through the democratic process.</p> <p>Rule of Law</p> <p>Appreciating that living under the rule of law protects individual citizens and is essential for their wellbeing and safety.</p>	<ul style="list-style-type: none"> • School Parliament Elections • House Charity Vote 	<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	<p>Compassion</p>  <p>Through kindness and empathy we care and show respect for ourselves and others.</p>	<p>Tolerance and Mutual Respect</p> <p>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.</p>	<ul style="list-style-type: none"> • Charity Fundraising • Anti-bullying Ambassadors Activities • Green Team Activities <ul style="list-style-type: none"> • Mental Health • Celebrating Diversity 	<p>What is tolerance?</p> <p>Is tolerance enough?</p> <p>How does our community proactively combat discrimination?</p>
House Week 3	<p>Compassion</p>  <p>We are brave in our actions and ambitions in our dreams.</p>	<p>Individual Liberty</p> <p>Understanding that the freedom to choose and hold other faiths and beliefs is protected by law.</p>	<ul style="list-style-type: none"> • Transition Focused Activities <ul style="list-style-type: none"> • Sports Day • Taster Sessions (being brave and trying new things) 	<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>

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!

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



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;

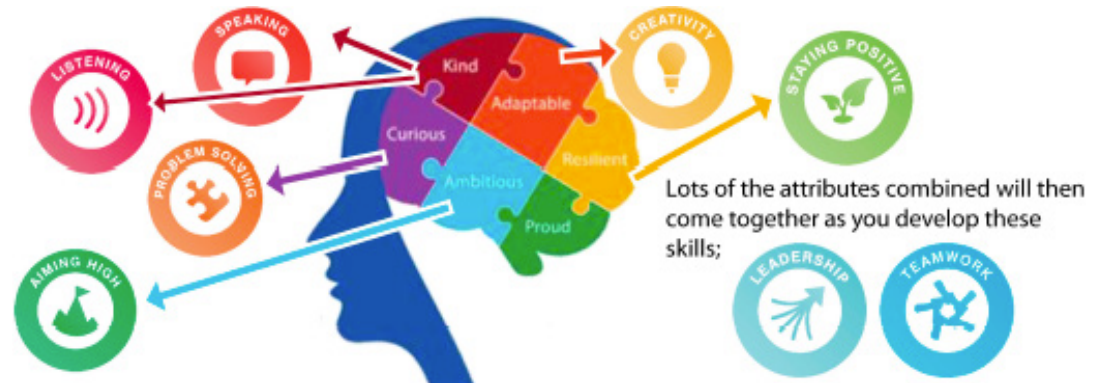
- Work experience
- Employer encounters
- CareerPilot sessions
- A Post-16 Destinations Fayre

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.

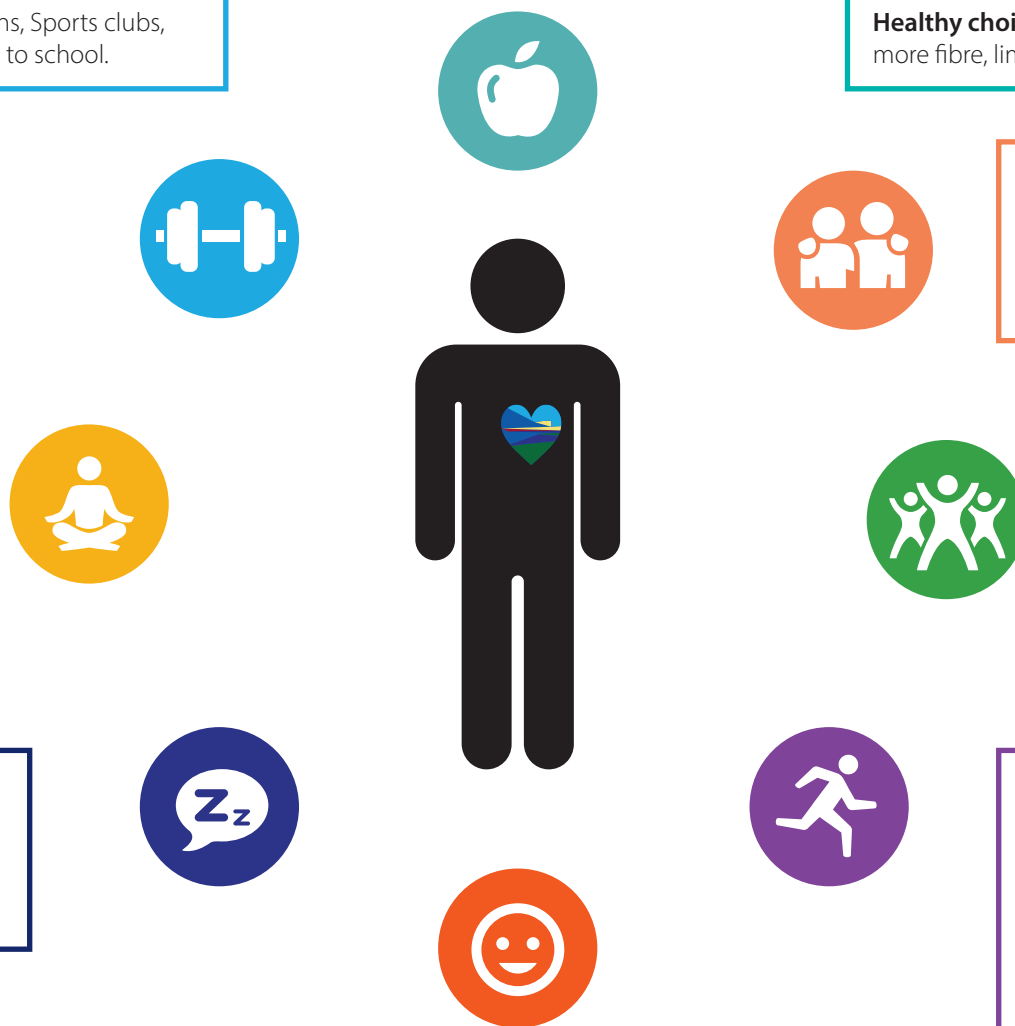
Healthy body - healthy mind! Links between physical activity and mental wellbeing. WES 10-a-day.

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	Thinking (Mental) ME	Social ME
<p>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). <input type="checkbox"/></p> <p>Attend an after-school club to help you develop and improve these skills further. <input type="checkbox"/></p> <p>Developing fitness</p> <p>For one of the sports, you are covering in this cycle, identify the main components of fitness needed. <input type="checkbox"/></p> <p>Engage in periods of sustained physical activity.</p> <p>The NHS recommends that you do 2 types of physical activity each week:</p> <ol style="list-style-type: none"> 1. Aerobic exercise. 2. Exercises to strengthen muscles and bones. <p>Young people aged 5-18 should:</p> <ul style="list-style-type: none"> • 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. <p>Keep a log of your activity levels for a typical week - see if you meet the NHS guidelines.</p> <p>Monitor your screen time for a week. <input type="checkbox"/></p> <p>Use equipment safely and hygienically.</p> <p>Think about the activities you are doing in this cycle and in each session be conscious of at least 2 safety considerations needed. <input type="checkbox"/></p> <p>Cook a healthy meal from one of the recipes you have done in food this cycle. <input type="checkbox"/></p>	<p>Making appropriate time for rest, relaxation, and sleep - Having routines that support positive mental health.</p> <p>Try to get 8-10 hours of good quality sleep a night!</p> <p>Rules, strategies and tactics. Think about:</p> <ul style="list-style-type: none"> • What are the main rules for the sport you are covering now? Write down 3 rules you have learnt. <input type="checkbox"/> • Can you give an example of a simple strategy or tactic you have been using? <input type="checkbox"/> • Can you give an example of a more complex strategy or tactic you have been using? <input type="checkbox"/> • Give 3 rules you must follow in the kitchen. <input type="checkbox"/> <p>Terminology:</p> <p>Give 3 examples of terminology you have learnt in any of your SHN lessons. <input type="checkbox"/></p> <p>Knowledge of muscles and bones - how many muscles and bones can you label correctly? <input type="checkbox"/></p> <p>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? <input type="checkbox"/></p>	<p>Leadership - 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"> • Offer to be a leader for a lesson! <input type="checkbox"/> • Help another person in a lesson to help them make progress. <input type="checkbox"/> • Officiate a game. <input type="checkbox"/> • Give feedback and support to another person. <input type="checkbox"/> • Motivate and encourage others in a lesson. <input type="checkbox"/> • Make an effort to INCLUDE another less confident person in your lesson. Help others learn - coaching. <input type="checkbox"/> <p>Teamwork - Working together - Work co-operatively, work collaboratively to achieve a goal. <input type="checkbox"/></p> <p>Give 2 examples of where you have shown good teamwork. <input type="checkbox"/></p> <p>Communication</p> <p>Verbal - give some feedback on a performance - What went well? How could they improve it? <input type="checkbox"/></p> <p>Non-verbal - Use of whistle, signals as an official, use of a demonstration - Try to do one of these each week. <input type="checkbox"/></p> <div data-bbox="1615 1222 1789 1398" 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?

Exercise

What exercise could I do?

I need 60 minutes of exercise a day

I could add exercise to my day by...

Mind

What am I worrying about?

Is there anything I can do about it?

No?

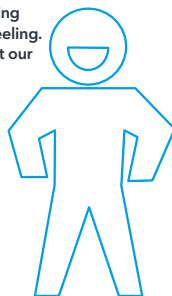
Let it go.

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:

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

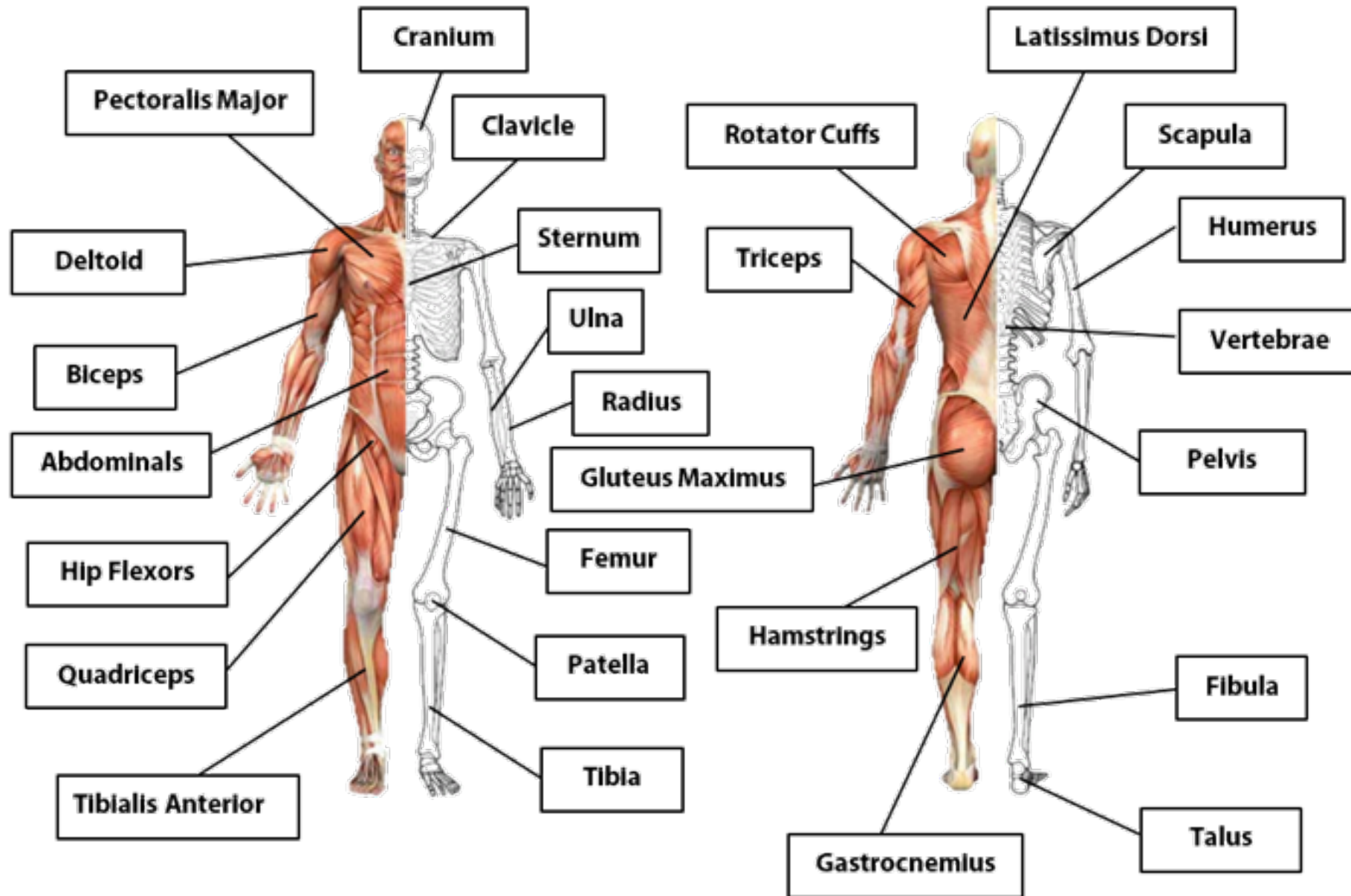
Athletes practice their skills in their mind by imagining themselves winning. This helps their brain learn how to be successful. Create a picture in your mind of something you want to achieve. Draw the picture in the box of what you will visualise.

Tips for learning new skills

- 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.

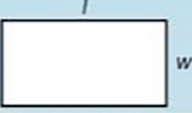
New habits and actions

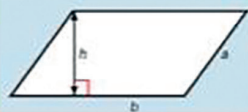
SPORT, HEALTH AND NUTRITION - Muscles and Bones




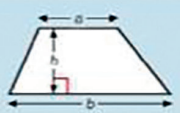
YEAR 11 CYCLE 1 MATHS: Foundation Formula Sheet

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

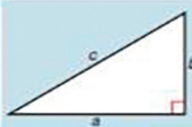
Circumference = $\pi \times \text{diameter} = \pi d$
 $2 \times \pi \times \text{radius} = 2\pi r$

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

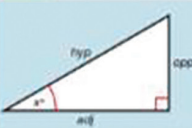


Right-angled triangles

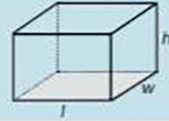
Pythagoras' Theorem
 For a right-angled triangle,
 $a^2 + b^2 = c^2$

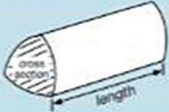



Trigonometric ratios (new to F)
 $\sin x^\circ = \frac{\text{opp}}{\text{hyp}}$, $\cos x^\circ = \frac{\text{adj}}{\text{hyp}}$, $\tan x^\circ = \frac{\text{opp}}{\text{adj}}$




Volumes


Cuboid = $l \times w \times h$ 


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

Cylinder = $\pi r^2 h$ 

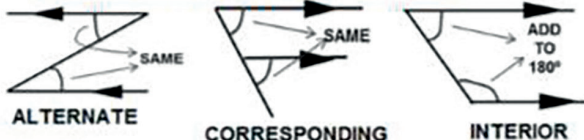
Compound measures

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

Constructing Pie Charts

The angle to draw for each sector is

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

Angles in Polygons

$$\text{Sum of Interior Angles} = (n - 2) \times 180^\circ$$

Where n is the number of sides of the shape

Exterior Angles add up to 360°

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

$$\text{Interior} + \text{Exterior} = 180^\circ$$

Other useful formulae

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

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

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)

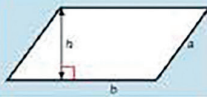
PRIME NUMBERS

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

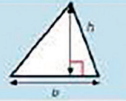
YEAR 11 CYCLE 1 MATHS: Higher Formula Sheet

Areas

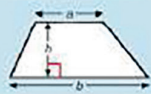
Parallelogram = $b \times h$



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



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°

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

Interior + Exterior = 180°

Compound measures

Speed

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



Density

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



Pressure

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

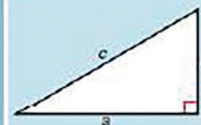


Right-angled triangles

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



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

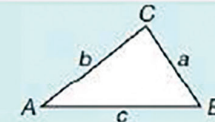
Perpendicular gradients multiply to give -1 .

Trigonometric formulae

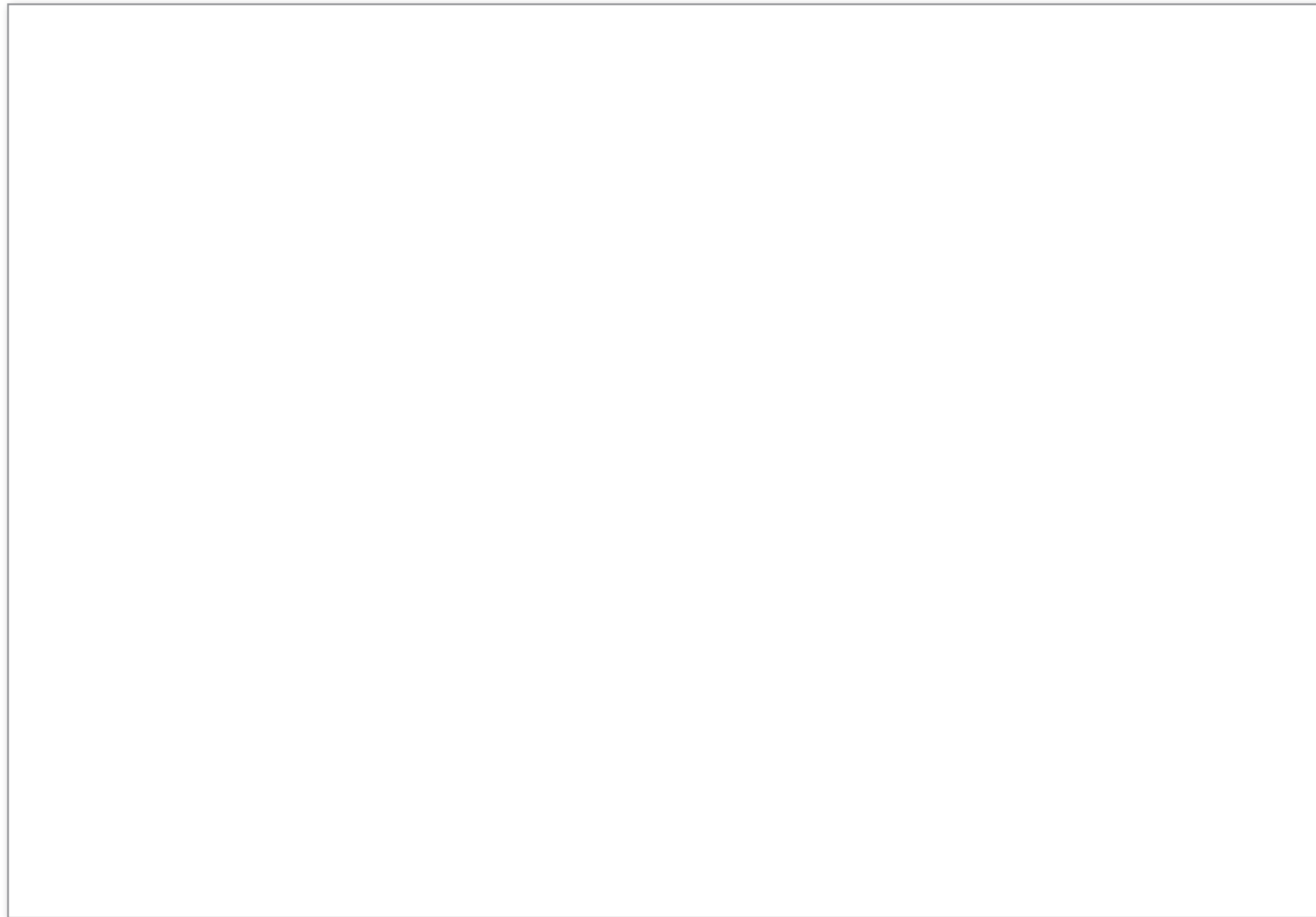
Sine Rule $\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$

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



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



x	0°	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 1 COMBINED SCIENCE

KEY VOCABULARY	WEEK 1	WEEK 2
<ol style="list-style-type: none"> Adrenaline: Hormone released from adrenal glands in a “flight or fight” situation when you are scared or excited. Aerobic respiration: chemical reaction releasing energy using oxygen. Anaerobic respiration: chemical reaction releasing a small amount of energy without oxygen present. Arteries: blood vessels which carry oxygenated blood around body. Capillaries: small blood vessels that reach cells. Diatomic molecule: molecule with 2 atoms. Electrolysis: method used to breakdown ionic compounds using electricity. Electrolyte: ionic substance in liquid form that can be used in electrolysis to separate the ions. Erythrocytes: red blood cells, these carry oxygen. Exothermic: a reaction that releases energy to its surroundings e.g. combustion or respiration. Hormone: a chemical messenger produced by hormonal glands and travels in the blood. Insulin: hormone that decreases blood glucose Lactic acid: the product of anaerobic respiration. Ore: rock that contains enough of a compound to extract metal for profit. Plasma: watery content of blood which carries dissolved glucose, urea and mineral ions. Platelets: cell fragments found in blood which are responsible for clotting. Redox reactions: called so because reduction and oxidation reactions occur at the same time. Thyroxine: hormone that helps regulate the metabolism. Waist-to-hip ratio: measurement used to calculate the risk of heart disease. 	<ol style="list-style-type: none"> Homeostasis is the maintenance of a constant internal environment in the body. Hormone: a chemical messenger that travels in the blood. Adrenaline is produced in the adrenal glands and thyroxine in the thyroid. Target organ: an organ which a hormone targets and acts, e.g. the heart, liver, muscle. The menstrual cycle: <ol style="list-style-type: none"> Changes that take place inside the woman’s reproductive system over 28 days. In preparation for an egg to be fertilised From puberty to menopause. Ovulation, when an egg is released from an ovary. The hormones that control the menstrual cycle are: Luteinising hormone (LH), Follicle stimulating hormone (FSH), Progesterone, Oestrogen. 	<ol style="list-style-type: none"> Endocrine gland: a gland which releases a hormone: pituitary gland, thyroid gland, ovaries and testes. Blood glucose levels are controlled by insulin and glucagon secreted from the pancreas. Insulin decreases the concentration of blood glucose levels. It is used as a treatment for type 1 diabetes. Diabetes is detected with urine tests. Insulin causes excess glucose in the blood to be stored as glycogen in the liver or muscles. Glucagon is a hormone that causes glycogen, that is stored in the liver and muscles, to breakdown into glucose, increasing the level of glucose in the blood. Type 2 diabetes is caused by insulin-releasing cells not producing enough insulin or target organs not responding to insulin.
	<p style="text-align: center;">WEEK 3</p> <ol style="list-style-type: none"> There are many components of blood including: erythrocytes (red blood cells), white blood cells (phagocytes and lymphocytes, plasma and platelets). The blood vessels have several adaptations: <ol style="list-style-type: none"> Veins: carry deoxygenated blood to heart. These have a large lumen (internal hole) and valves: to keep blood moving in one direction back to heart. Arteries: carry oxygenated blood away from heart. These have thick layers of muscle to withstand the high pressure generated by left ventricle and elastic tissue to stretch and recoil as blood enters. Capillaries: site of exchange between blood and body tissues. One cell thick to enable rapid diffusion to occur. 	<p style="text-align: center;">WEEK 4</p> <ol style="list-style-type: none"> Respiration is the chemical reaction which takes place in the cells. Its purpose is to release energy. It is an exothermic reaction. Aerobic respiration: <ol style="list-style-type: none"> Takes place in the mitochondria of cells. Releases a large amount of energy. Reaction uses oxygen. Glucose + oxygen  carbon dioxide + water Anaerobic respiration: <ol style="list-style-type: none"> Takes place in the cytoplasm of cells No oxygen is present Less energy is released A by-product called lactic acid is formed Glucose  lactic acid Lactic acid causes muscle fatigue.

YEAR 11 CYCLE 1 COMBINED SCIENCE

WEEK 5	WEEK 6	WEEK 7
<p>Electrolysis: Electrolysis uses energy transferred by electricity to break down (decompose) different substances. When an ionic substance is melted or dissolved in water, its ionic bonds break. This allows the ions to move.</p> <p>An ionic substance with freely moving ions is called an electrolyte.</p> <p>Two electrodes are connected to a direct current electricity supply and placed into the electrolyte.</p> <p>The positive electrode is called the anode.</p> <p>The negative electrode is called the cathode. The two types of ions carry opposite charges and so move towards the electrode with the opposite charge.</p> <p>Cations are positive ions.</p> <p>Anions are negative ions.</p>	<ol style="list-style-type: none"> An ore is a rock that contains enough of a compound to extract a metal for profit. Metals that are more reactive than Carbon are extracted by electrolysis (expensive). Metals less reactive than Carbon are extracted by heating with Carbon. Bioleaching and phytoextraction are biological methods of extracting metals. Reduction is when oxygen is removed from a compound during the metal extraction. Oxidation is the gain of oxygen by a substance. Oxidation and reduction always occur together (Redox reactions). Recycling metals helps preserve natural reserves of metal ores, less mining is needed, produces less pollution and less waste goes to landfill sites, but can be more expensive. Life cycle assessments test for environmental impact of a product. 	<ol style="list-style-type: none"> Reversible reactions happen when the products in a reaction react to reform the reactants. Dynamic equilibrium is a certain point when the forward and backward reactions are still occurring but the percentages of reactants and products are no longer changing. Dynamic equilibrium only occurs in closed systems as no product or reactant is lost. Haber process: used to manufacture ammonia, using a temperature of 450°C, pressure of 200atm and the use of an iron catalyst. <div data-bbox="1417 592 1951 775" style="border: 1px solid black; padding: 5px; text-align: center;"> <p>forward reaction →</p> <p>ammonium chloride ⇌ ammonia + hydrogen chloride</p> <p>$\text{NH}_4\text{Cl(s)} \rightleftharpoons \text{NH}_3\text{(g)} + \text{HCl(g)}$</p> <p>← backward reaction</p> </div>
WEEK 8	WEEK 9	WEEK 10
<ol style="list-style-type: none"> Group 1 (Alkali metals) - all have: <ol style="list-style-type: none"> 1 electron in their outer shell, Form 1⁺ ions, Reactivity increases as you go down the group because the force of attraction between the + nucleus and the - outer electron decreases, so it is easier to remove the electron, Are soft, float on water Relatively low melting points. Group 7 (Halogens) - all have: <ol style="list-style-type: none"> 7 electrons in their outer shell, Form a 1 ion. Reactivity decreases as you go down the group. The force of attraction between the + nucleus and the - outer electron decreases making it harder to attract extra electrons, Are all diatomic (travel in pairs, Cl₂) 	<ol style="list-style-type: none"> Group 0 (Noble gases) - <ol style="list-style-type: none"> Are inert (unreactive) because they have a full outer shell, Have a low density, Colourless, Poor conductors of heat, Are non-flammable. Density is the number of particles in a given volume: Density = mass ÷ volume When a solid stores more thermal energy the vibrations of particles increase. The speed of particles in liquids and gases increase when they are storing more energy. Temperature is a measurement of the movement of particles. The amount of thermal energy stored in an object depends on its temperature, mass and the material it is made from. 	<ol style="list-style-type: none"> Specific heat capacity is the amount of energy needed to raise 1kg of material's temperature by 1°C. SHC of an object is dependent on its temperature, mass and material. <div data-bbox="1417 1010 1966 1110" style="border: 1px solid black; padding: 5px; text-align: center;"> <p>change in thermal energy (J) = mass (kg) × specific heat capacity (J/kg °C) × change in temperature (°C)</p> </div> <ol style="list-style-type: none"> Specific latent heat is the amount of energy required to make a substance change state: <div data-bbox="1417 1193 1984 1289" style="border: 1px solid black; padding: 5px; text-align: center;"> <p>thermal energy needed for a change of state (J) = mass (kg) × specific latent heat (J/kg)</p> </div> Core practical: Investigating water to find out what happens to the temperature of ice as it melts and how much energy is needed to increase the temperature of a certain mass of water by 1°C.

YEAR 11 CYCLE 1 GEOGRAPHY - The Challenge of Resource Management (Paper 2)

WEEK 1

Resource: a stock of supply of something that has a value or a purpose.

Resource management: the control and monitoring of resources so they do not become depleted or exhausted. Resources are unevenly distributed across the world. Most HICs have plentiful supplies and a good standard of living. Poorer countries e.g. sub-Saharan Africa, have a lack resources and struggled to progress.

Food: World Health Organisation suggests we need 2000-2400 calories per day to be healthy (one billion people fall below this). Further two billion people have under nutrition - poorly balanced diet lacking vitamins.

Water: Imbalance in water supply due to climate variations. UN estimates that by 2025 there will be 50 countries facing water scarcity. Expensive to capture and store water.

Energy: Required for economic development. Powers factories and machinery and provides fuel for transport. Consumption increasing as the world becomes more developed. The Middle East supplies much of the world's oil yet, own use is relatively small. Demand in NEEs increasing as they industrialise.

WEEK 2

Demand for energy in the UK

UK energy consumption has fallen in recent years, despite demand increasing, due to the decline of heavy industries and improved energy conservation.

UK's **energy mix** (the range of proportion of different energy sources) has changed over the last 25 years.

The UK is no longer energy sufficient and has used 75% of its known oil and natural gas reserves. The UK imports approximately 75% of its energy, making it energy insecure. In 2015, the government decided to phase out the subsidies for renewable energy.

The major change in the UK has been the decline of coal. The last coal mine in the UK closed in 2015. Decline due to concerns about greenhouse gases as well as the age of coal-fired power stations.

The UK has rich reserves of natural gas trapped deep underground in shale rocks.

Fracking - where high pressure liquids are introduced to fracture the shale and release the gas - is a possibility for the future.

Proposed new nuclear power station and Hinkley Point C will costs £18 billion.

WEEK 3

Demand for water in the UK

Almost 50% of the UK's water supply is used in households (known as domestic use).

The south and east of the UK has a **water deficit** where demand exceeds supply. It is the most densely populated part of the country, yet it has the lowest annual rainfall.

Water stress: occurs where demand for water exceeds supply in a certain period.

Saving water helps to manage water supplies. Examples include the use of a water meter in homes, increasing the use of recycled water (**grey water**) and more efficient domestic appliances.

The **red areas** below show the areas in greatest water stress:



WEEK 4

Demand for food in the UK

The UK imports 40% of the total food consumed. This is due to the demand for seasonal and more exotic foods all year round (e.g. strawberries), the availability of cheaper food abroad and the fact that the climate in the UK is unsuitable for some foods to grow.

Food miles: the distance covered to supply food, from producer to consumer

Carbon footprint: measurement of the greenhouse gases individuals produce as a result of their activities.

There is growing interest in sourcing food locally to reduce carbon emissions. People are being encouraged to eat seasonal foods produced in the UK.

Agribusiness: intensive farming aimed at maximising the amount of food produced. They have high levels of investment, use modern machinery and chemicals.

Organic produce: grown without the use of chemicals. Tends to be more expensive for the consumer due to higher labour costs.

WEEK 5

Global patterns of food supply

Food consumption: Canada, the USA and Europe consume the most, with an average daily intake of over 3400 calories. Most countries closer to the recommended daily allowance of 2000-2400 calories. Sub-Saharan Africa is below this.

Global food consumption is rising due to:

Increasing level of development and higher standards of living means that people can afford more food.

Growing populations, particularly in India, Indonesia and China.

Greater availability of food due to improved transport and storage.

Food supply: Countries with vast human resources like China and India have high agricultural outputs. The USA, Brazil and UK achieve high outputs due to intensive farming methods and high money investment. Countries in sub-Saharan Africa produce less food because they have unreliable rainfall, drought, low investment and a lack of education and training.

Countries which produce more food than is needed for their population have a **food surplus**. Most countries do not produce enough food to feed their people and have to rely on imports. Many countries have a **food deficit** and experience **food insecurity**.

YEAR 11 CYCLE 1 GEOGRAPHY - The Challenge of Resource Management (Paper 2)

WEEK 6

Factors affecting food supply

Climate affects productivity and the types of food grown. Regions experiencing extreme temperatures and rainfall struggle to produce food.

Climate change can cause weeds and pests to thrive in warmer conditions.

Poor use of irrigation can lead to waterlogging and salinisation.

Lack of water affects many areas that suffer food scarcity, particularly sub-Saharan Africa. Areas likely to suffer desertification in the future.

Conflict can lead to the destruction of crops and livestock and possibly cause famine.

Poverty: the poorest people cannot afford any form of irrigation, technology or fertilisers.

Technology: many LICs lack the money to invest in agricultural infrastructure such as warehouses for safe storage, irrigation systems or machinery.

Floods: often caused by tropical storms can cause losses of crops.

WEEK 7

Impact of food insecurity

Food insecurity occurs when a country cannot supply enough food to feed its population.

Famine: Widespread shortage of food causing malnutrition, starvation and death. E.g. Ethiopia in the 1980s when an estimated 400,000 people died of starvation due to drought and political conflict.

Under nutrition: Lack of a balanced diet and deficiency in minerals and vitamins. Between 2012 and 2014, it was estimated that 805 million people suffered with under nutrition.

Soil erosion: involves the removal of the fertile top soil layers by wind and water. Over-cultivation and over-grazing leaves soil exposed and a loss of fertility.

Rising prices: Rising across the world, mainly due to increased prices for fertilisers, animal feed, storage and transportation. LICs hardest hit by higher food costs as food represents a higher share of their spending.

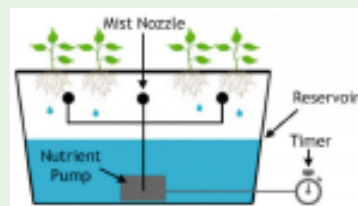
Social unrest: Incidents -sometimes called 'food riots' - correspond with high rises in the price of food. In 2011, the price of cooking oil and flour doubled. In Algeria, this led to five days of rioting, with four people killed.

WEEK 8

Increasing food supply

Aeroponics: plants are sprayed with fine water mist containing plant nutrients. Excess water can be collected and re-used.

Hydroponics: plants are grown in gravel or mineral-rich water.



Green revolution: First used in the 1950s and 1960s when modern farming techniques were used in poorer countries. Scientists developed new strains of seeds which produced higher yields, mainly rice and maize. In five years, yields rose 40% in Asia.

Biotechnology: Uses living organisms to make or modify products or processes. Includes the development of genetically-modified crops. Produce higher yields and reduce carbon dioxide emissions. Some opposition due to potential effects on human health.

Appropriate technology: Using skills or materials that are cheap and easily available to increase output. Involves small-scale water harvesting equipment and irrigation methods.

WEEK 9

A large scale agricultural development: Almeria, Spain

Over the last 35 years, the area has developed into the largest concentration of greenhouses in the world, covering over 26,000 hectares. UK's out of season crops are grown there e.g. tomatoes. Scheme brings \$1.5 billion per year.

Developed due to: Average temp of 20°C with 3000 hours of sun per year. Funding from the EU and Spanish government. New and fast transport methods with lower costs.

Advantages

Large cheap, temporary labour from N Africa and eastern Europe. Less water use due to drip irrigation and hydroponics.

Low energy costs due to year-round warmer temperatures.

New desalination plant supplying fresh water to the region.

Disadvantages

Natural water sources in the area drying up.

Increased use of pesticides in the area has led to increased health risks.

Large amounts of waste, including plastic sheeting and chemical containers.

Labour force paid low wages and have poor working conditions.

WEEK 10

Sustainable food production

Organic farming is growing crops or rearing livestock without the use of chemicals. Production and labour costs higher.

Permaculture follows the patterns of a natural ecosystem. Aims to be sustainable, productive, non-polluting and healthy. Includes harvesting rainwater, composting waste and using crop rotation.

Fish from sustainable sources: Involves setting catch limits (quotas) and monitoring fish breeding. EU sets standards. Norway - salmon farms area spread along the coastline to reduce the risk of disease spreading.

Jamalpur, Bangladesh

Practical Action working with farmers to increase income and improve nutrition, using rice-fish culture. This introduces small local fish to the paddy fields. Provide a natural fertiliser with their droppings, eat insect pests and help to circulate oxygen. Yields have increased by 10% and the farmers have supplies of fish for protein. Surplus of rice can be sold at market. Sustainable as it does not use artificial fertiliser or impact the local environment.

YEAR 11 CYCLE 1A HISTORY - Early Elizabethan England Unit 3

TIMELINE OF KEY DATES

1572: Act for the Punishment of Vagabonds establishes harsh treatment of offenders beggars.

Censorship of plays introduced. All acting companies had to have a royal licence.

1576: Act for Relief of the Poor displays a more enlightened (kinder) attitude towards poverty.

The first theatre to be built since Roman times opened just outside London. It was named 'The Theatre'.

1577: Drake begins his circumnavigation of the globe: the expedition last three years.

1585: The first attempt by Raleigh to establish the colony of Virginia. Starving colonists were rescued by Drake in 1586.

1587: The second expedition to Virginia. When John White returned with supplies in 1590, the colonists had mysteriously disappeared.

1558-1603: 72 new grammar schools were founded during Elizabeth's reign. These were usually attended by sons of gentry, merchants and yeomen.

By 1603: It was estimated that only 30% of men and less-than 10% of women could read and write.

KEY EVENTS / INDIVIDUALS

Vagabonds (top left): Travelling homeless beggars.

William Shakespeare (top right): The most famous English playwright whose works were performed in The Globe Theatre.

Christopher Marlowe: Another famous Elizabethan writer of plays. His most acclaimed work was 'The Jew of Malta', a black comedy.

Francis Drake (bottom left): Sailor, Pirate (?) and privateer who cleared England's debt with the riches made from just one voyage.

Walter Raleigh (bottom right): Sailor, explorer and visionary who wanted to create Virginia as a North American colony in Elizabeth's honour.



KEY VOCABULARY

Astrolabe: An instrument used by sailors to calculate their position by the stars.

Bullion: Bars of gold and silver such as those being shipped to the Spanish Netherlands.

Colonists: People who have settled in a colony.

Colony: A country (or piece of land) under the full or partial control of another, and occupied by settlers of that country.

Garrison: A body of troops stationed in a fortified place such as a fort.

Gloriana: A name given to Elizabeth I because she was so gloriously successful.

Latitude and Longitude: Imaginary lines circling the globe from horizontally (latitude) and vertically (longitude).

Empire: A collection of colonies. A maritime empire was one in which the ruling country had control of the seas.

Masques: Court entertainments in which famous events were shown through dance and mime.

Mutiny: An open rebellion against authority, often among soldiers and sailors.

New World: The 16th century name for North and South America.

Piracy: The practice of attacking and robbing ships at sea.

Religious Crusade: A holy war with a religious purpose, usually to capture and convert lands.

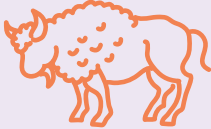





Vagabondage: Vagrancy, homelessness, wandering without a purpose. Vagabonds were seen as a threat to society in the 16th century and were often treated harshly.

Yeomen: Farmers who owned their own land. Some grew quite wealthy during Elizabeth's reign.

Key to colours:

Learn these words for weeks 1 and 2 | Learn these words for weeks 3 | Learn these words for weeks 4 and 5

YEAR 11 CYCLE 1B HISTORY - The American West Unit 3

	The Plains Indians	US Government Policy	Westward Expansion	Homesteaders	Law & Order	American-Indian Conflict
Conflicts and Conquest, c. 1876-c. 1895	 <p>Buffalo exterminated by a combination of railroads, demand for leather goods, hunting expeditions and diseases from cattle and horses.</p> <p>Life on the reservations destroyed Indian culture by:</p> <ul style="list-style-type: none"> Reducing influence of chiefs. Giving children a 'white' education. Banning hunting and beliefs/customs. Teaching farming. 	 <p>Defeat at Little Big Horn (1876) increased US government control over Plains Indians.</p> <p>Buffalo extermination encouraged.</p> <p>The 1887 Dawes Act: Reservations broken into 160 acre allotments = further destruction of Indian culture.</p>	 <p>1879 Exoduster Movement: 40,000 black ex-slaves moved to Kansas and other western states. However, they struggled with poorer land and lack of support / investment.</p> <p>1889 Oklahoma Land Rush: 2 million acres opened for settlement. In 1893, a further 8 million acres were opened.</p>	 <p>Further developments:</p> <ul style="list-style-type: none"> Development of dry farming (e.g. ploughing soil immediately after rainfall). Reliable high steel tower wind pumps. Improved barbed wire allowed land to be enclosed. 	 <ul style="list-style-type: none"> Overstocking the open range saw cattle prices drop. Winter of 1886-87 saw 15% of cattle die. Ranchers now turned to smaller herds in fenced-in pastures with shelter. The end of the open range saw cowboys moving onto ranches, leading less adventurous lives. Numbers dropped. 	 <p>The Lincoln County War (1878): Billy the Kid became caught up in a range war between cattle baron John Chisum and smaller ranchers. Billy was shot dead by Pat Garrett in 1881.</p> <p>Gunfight at the OK Corral (1886): Lawman Wyatt Earp and his brothers shot cowboys in Tombstone.</p> <p>The Johnson County War (1892): Cattle barons hire 22 Texan gunmen to kill 70 suspected rustlers. The plan failed but the gunmen were set free.</p>
	Week 6	Week 7	Week 8	Week 9	Week 10	

YEAR 11 CYCLE 1A WEST EXE BACCALAUREATE - Money Skills

WEEK 1:
Glossary

WEEK 2

WEEK 3

WEEK 4

WEEK 5

APR: The Annual Percentage Rate is the cost of a loan (i.e. the original loan plus 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).

Credit score: A score given to you by a financial company, which indicates how likely you are to pay back any money you borrow.

Minimum wage: The lowest amount per hour that a worker **must** be paid, based on their age.

Living wage: A wage calculated according to the basic cost of living in the UK. Employers **can choose** to pay this.

Tax code: A reference indicating the total amount of income you can earn in a year before paying tax, (which is your personal tax allowance).

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.

National Insurance (NI): 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. The rate for 2018/19 was 13.8% of any earnings over £8,424.

Example: For salary of £20,000 per year:
£20,000 - £8,424 = £11,576. NI paid on £11,576 @ 13.8% = £1,597.48 (£133.12 per month).

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

Statement period: The time period covered by the statement.

Date: When the transaction occurred.

Account number: The unique reference number that identifies each customer.

Sort code: A 6-digit number that identifies the bank branch.

Cheque (CHQ): Order to your bank, written on a printed form, to transfer funds from your account.

Point of sale (POS): Generally, card purchases from a retailer, e.g. a contactless payment.

Standing order (SO): A payment set up either to pay another person or an organisation as a one off, or on a regular basis.

ATM: Cash machine.

Direct debit (DD): A payment set up by the company to whom you are making a regular payment.

Debit (DR): Money leaving your account.

Credit (CR): Money going into your account.

Balance: A running total of how much you've got in your account.

Overdraft: A facility on a bank account that allows you to spend more money than you have in the account.

Personal loan: A loan to an individual used for things such as buying a car, etc. The maximum amount is usually around £25,000.

Mortgage: A long-term loan usually used to buy a property. Most are repaid over 25 years.

Top tips for bank accounts

- Make sure your details are correct. If you're moving home, tell your bank.
- Check you bank statement to check all the transactions listed are genuine.
- Make sure you understand all acronyms and terms.
- Keep your bank details somewhere safe.
- Shred paper statements, or opt for online paperless banking.

Employee No	Employee	Pay Date	Tax Code	National Insurance Number		
01236	A.N. Other	30/06/2017	NT	JC 76** **C		
Payments	Units	Rate	Amount	Deductions	Amount	
Basic Gross Pay	1	1	£100.00	PAYE	£100.00	
Overtime	2	2	£200.00	NIC	£200.00	
Shift Allowance	3	3	£300.00	Pension	£300.00	
	4	4	£400.00	Student Loan	£400.00	
A.N. Other 1 My Road My Street My Town MT1 1AA			Totals for this period		Totals Year to Date (TD)	
			Total gross pay	£100.00	PAYE	£100.00
				£200.00	NIC	£200.00
				£300.00	Pension	£300.00
				£400.00	Student Loan	£400.00
ABC Company			Total Net Pay		£1234.56	

Date: The last day of the payment period, usually a week or a month

National Insurance (NI) number: Unique reference for paying NI, or for receiving benefits, or the state pension

Employee number: Unique number for an employee.

NT: 'No tax': appears when no tax is being deducted.

Tax code: Shows the amount of tax to be deducted and the personal allowance that can be earned before start paying tax.

Basic: Pay for working normal agreed hours.

Overtime: Extra hours worked and paid for.

Rate: Either hourly wage or monthly salary.

Gross pay: Total pay before tax and other deductions.

Deductions: Amounts that are taken from the gross pay.

Net pay: Amount of pay taken home after deductions.

NIC Contributions: Paid by everyone over 16, earning above a certain amount, used to fund the state pension and benefits.

PAYE 'Pay As You Earn': Spreads tax payments across each week or month, based on an estimate of yearly salary.

Pension: A long-term savings plan specifically to provide financial support in retirement.

Student loan: Money borrowed to cover university tuition fees and other study-related expenses.

Top tips for creating your own budget

- Choose the period of time your budget needs to cover.
- List all the ways you earn or gain money and add together to get your total income.
- List all the ways you spend and add these up to get your total expenditure.
- Take your spending from your total income. Any money left over can be saved.

YEAR 11 CYCLE 1B WEST EXE BACCALAUREATE - Crime and Punishment

WEEK 6: Causes of Crime	WEEK 7: Tackling Crime	WEEK 8: Aims of Punishment	WEEK 9: Capital Punishment	WEEK 10: Crime Statistics
<p>Poverty. People who see themselves as poor compared to others are more likely to steal than those who consider themselves to be well off.</p> <p>Lack of social integration and control. Young people may commit crime as they aren't integrated into society. They have few commitments, and may not be concerned about the effects of getting caught.</p> <p>Frustration (strain theory). Not everyone in society has the same opportunities, or abilities, to achieve their goals. If people cannot meet their aspirations legally, they may attempt to achieve success through crime.</p> <p>Alcohol and drugs. People are more likely to commit crimes when influenced by alcohol and / or drugs. Drug addicts often fund their habit through crime.</p> <p>Normalisation of criminal behaviour. Some people think that types of criminal behaviour are socially acceptable, especially if this view has been reinforced by the media.</p> <p>Upbringing and socialisation. Children are more likely to turn to crime if brought up in families where criminal / racist behaviour is common. Gang culture also creates conditions where individuals are more likely to engage in crime.</p>	<p>Strategies to tackle crime depend on its main cause:</p> <p>One view is that crime is a personal choice. Poverty and poor examples set by parents do not have to lead to criminal behaviour. Many people overcome these problems without committing crimes.</p> <p>The other view is that crime is caused mainly by social conditions, such as poor housing, unemployment, low-wages, etc. These conditions encourage people to turn to crime.</p> <p>Strategies to tackle crime caused by personal choices</p> <ul style="list-style-type: none"> • Make sure rules are clear and that there is a high risk of getting caught. • Make punishments more severe. • Help people overcome alcohol and drug dependency and psychological disorders. • Make sure everyone has good • Educational opportunities. • Outlaw discrimination. <p>Strategies for tackling the social causes of crime</p> <ul style="list-style-type: none"> • Increase welfare support for poor families. • Improve housing conditions. • Create more apprenticeships and jobs. • Better opportunities for young people from poorer areas. 	<p>Deterrence. The thought of punishment, and other consequences, e.g. losing their job, prevents someone from committing a crime. This is one argument supporting the use of prisons.</p> <p>Protection. Keeping society safe from violent offenders. Custodial sentences are seen as the only form of punishment that can achieve this.</p> <p>Reformation. Using punishment to educate and reform an offender so they become a 'good' member of society.</p> <p>Reparation. Making the offender repay something back to the community they have harmed. Community sentences are examples of punishments intended to achieve this aim.</p> <p>Retribution. Another word for 'revenge'. The offender has done something bad, so something bad should happen to them. Based on the religious teaching of 'an eye for an eye'.</p> <p>Vindication. Without punishment, laws would be meaningless; punishment justifies the legal system.</p> <p>Punishment may also involve restorative justice where the offender meets their victim to hear the impact of their actions.</p>	<p>Arguments for:</p> <ol style="list-style-type: none"> 1. Murders have taken a life, so should forfeit their right to life. 2. Capital punishment is a just (fair) form of retribution i.e. "An eye for an eye". 3. Capital punishment is a deterrent, especially for potentially violent offenders who are not deterred by the thought of prison. 4. The legal system can ensure that only those who are really deserving of death are executed. <p>Arguments against:</p> <ol style="list-style-type: none"> 1. If we kill murderers we are, morally, as bad as them. 2. A death sentence for any crime other than murder means the punishment is disproportionate to the harm caused by the offense. 3. Violates the offender's right to life and is inhumane and degrading. 4. Research demonstrates that the death penalty is not a more effective deterrent than life or long-term imprisonment 5. Capital punishment cannot be fairly applied - the poor and minorities will be discriminated against. 6. Innocent people could be executed for a crime they did not commit. 	<p>Patterns of crime in the year ending June 2021 were greatly affected by the pandemic. The lockdowns resulted in decreases of many types of crime. Afterwards, crime levels were similar to pre-pandemic levels. The Telephone-operated Crime Survey for England and Wales (TCSEW) estimates adults aged experienced 12.7 million offences, including fraud and computer misuse.</p> <p>Total police recorded crime remained stable with 5.8 million crimes in England and Wales. However there was a 3% decrease (4.9 million offences) when excluding fraud and computer misuse.</p> <p>TCSEW figures show that 21.5% of adults experienced a crime in the year ending June 2121.</p> <p>Figures for specific crimes:</p> <p>Homicide - 627 (10 per 1 million people). Firearms offences - 5,867. Knife or sharp instruments - 46,937. Burglary - 265,508. Vehicle offences - 344,487. Robbery - 62,803. Theft - 3,010,000*. Violence - 1,864,000*. Fraud - 5,035,000*. Computer misuse - 1,772,000*.</p> <p>*TCSEW figures.</p>

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. <i>First, identify the verbs...</i> In the park, Ben sat on the bench, looking at the ducks. <i>Then, change the tense...</i> 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 Sentence	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 <u>object</u> is the thing that receives the verb - the subject affects it in some way.	The girl kicked the <u>ball</u> . The man ate <u>all of the cake</u> .
	Imperative Sentences	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 Sentence	Made up of two parts: a <u>main clause</u> and one or more subordinate clause . A <i>subordinating conjunction</i> always comes at the start of the subordinate clause.	<u>The boy sat down</u> after he heard the news . <u>Nobody saw the alien</u> 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.	<u>After he heard the news</u> , the boy sat down. <u>Because he was invisible</u> , 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, <u>that were jumping and calling</u> , 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 BOTH 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 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.



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