Knowledge Book

Year 11

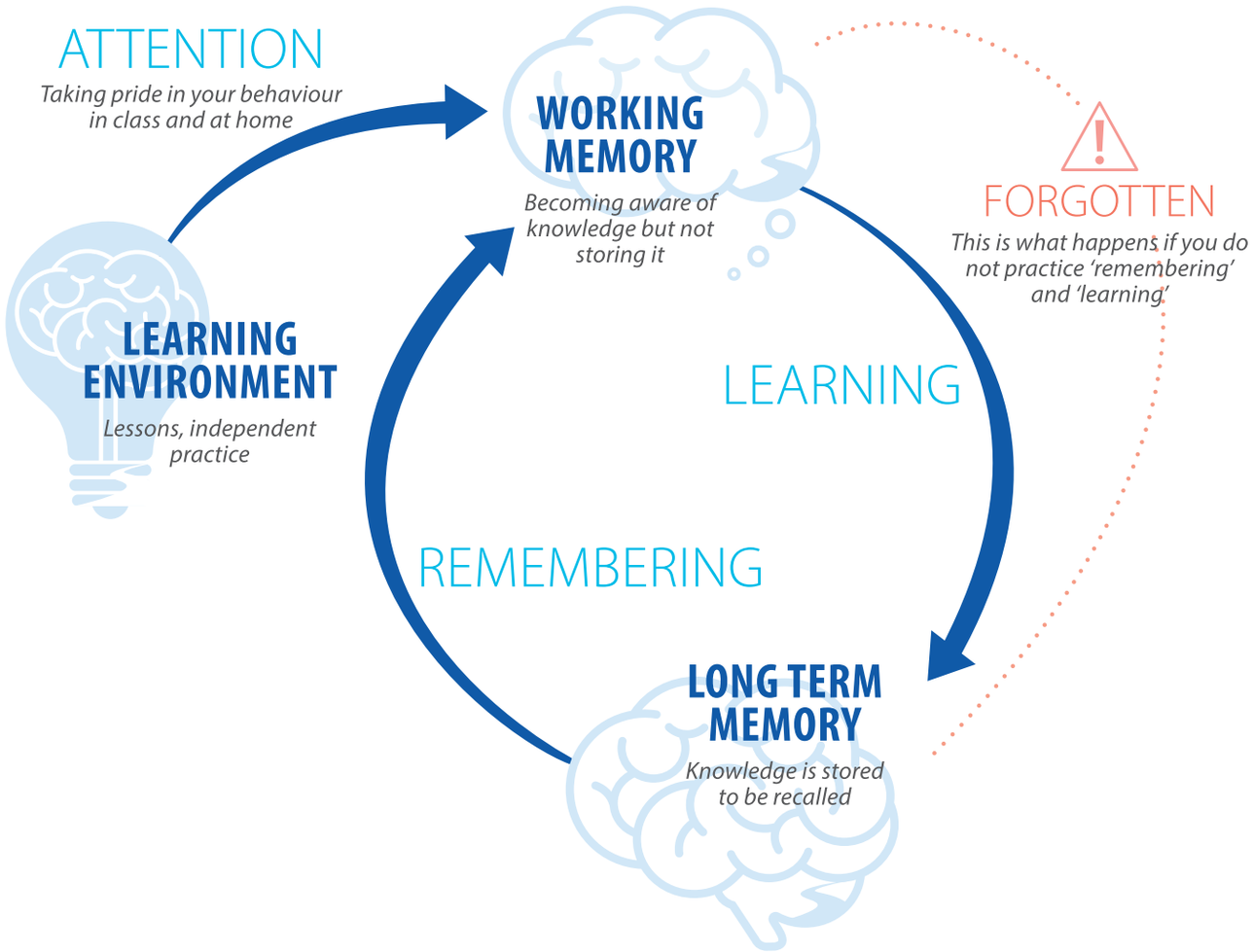
Cycle One

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.

Our ability to learn and remember is enhanced when we engage in activities that test what we remember. 'The testing effect' is a proven way of enhancing our long-term memory which gives us clear feedback on gaps in our learning. Therefore, regular quizzing is a vital part of our curriculum.

Year 11 Extended Practice Timetable & Study Skills

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

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

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

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

Sociology	qxb2db3
Spanish	xd265ty
Sport Vocational	7cyfvmc
Statistics	fsnkd3ni

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

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

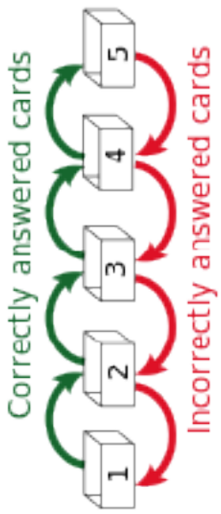
Day	Action	Consequence if not achieved
Friday	Sparx extended revision released.	
Sat/Sun	Use this time wisely to start your extended practice.	
Monday	Compulsory extended practice must have been started by now.	You will be expected to attend Sparx extended practice club in maths if you have not begun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

REMEMBERING: MASTERING YOUR MEMORY

The Leitner Revision System

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

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



Link to Learning

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

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


STAEDTLER
Mars plastic
Latex Free • Sans-latex • Libre de latex
CASIO
fx-83GT X
CLASSWIZ
-2
SHIFT
ALPHA
MENU SETUP
ON
OPTN
Abs
log
ln
sin
cos
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RECALL
STO
ENG
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M+
DEL
AC
Ans
MathBits.com
Pritt
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House Week, West Exe School & British Values Knowledge Organiser

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

Dream More. Do More. Become More.

BULLYING UPDATE - YEAR 11

Stop!

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

Barack Obama

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

Bullying can take may forms including:

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

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

Speak

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

Lady Gaga

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

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

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

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

Set, protect, and respect boundaries for yourself!

Talk to someone you trust!

Support

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

Drake

What we do at West Exe to deal with bullying:

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

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

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

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

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

YOUNGMiNDS
fighting for young people's mental health

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

Year 11: Talking Futures

Community

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

Opportunity

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

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

Success

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

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

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

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

British Values

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

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

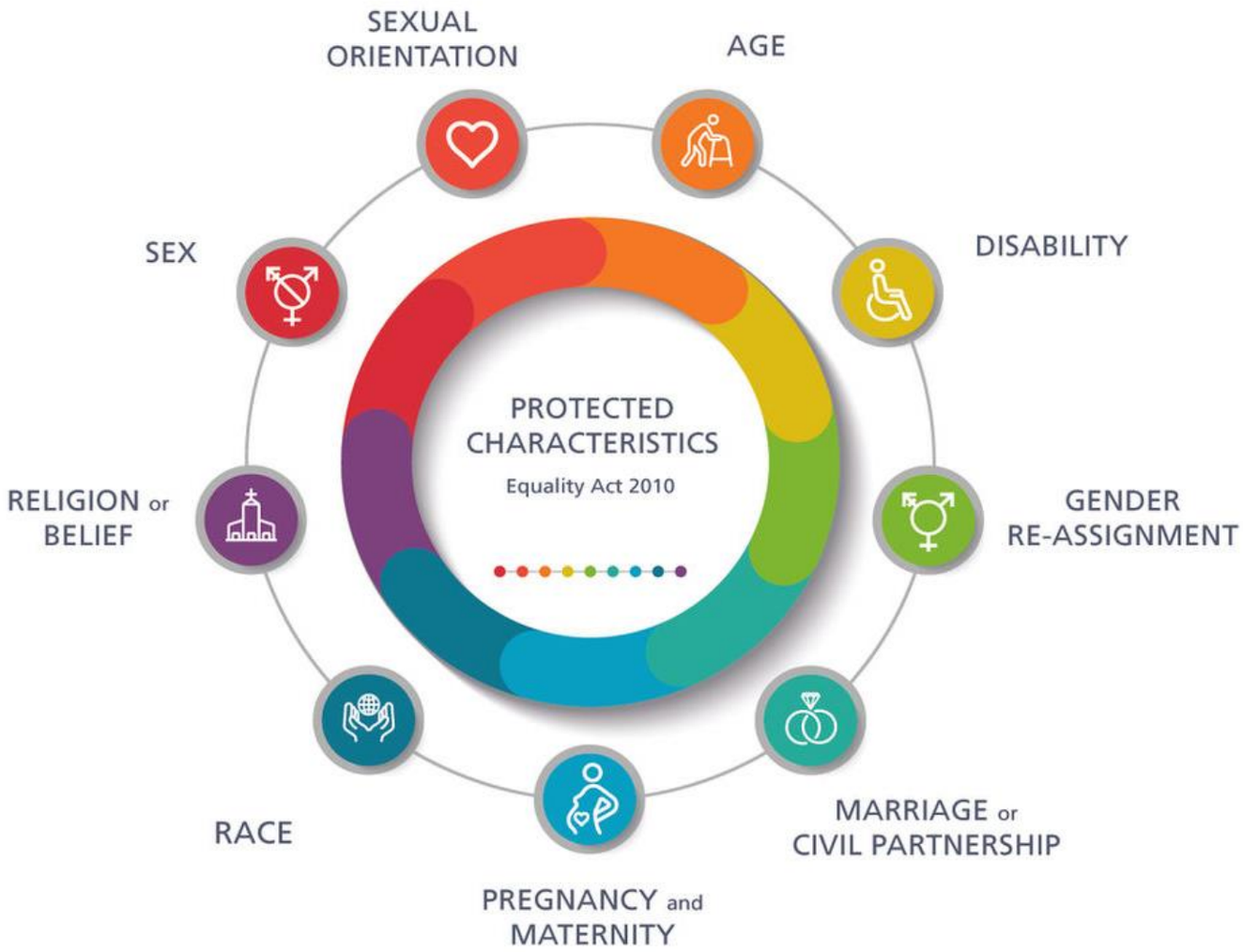
This means that the law applies to everyone, and must treat everyone the same. It means we all have the same legal rights and responsibilities.
At West Exe, the lesson expectations are for everyone to follow, our behaviour policy will be fairly applied, and you will all be treated equally.

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

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

Equality Act (2010)

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



Key words

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

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

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

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

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

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.

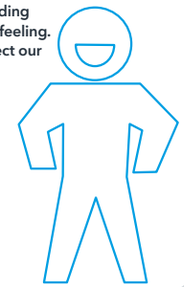
Yes? Do it now or make a plan about how and when you will do it.

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.

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.

Year 11 CYCLE 1 MATHS - Foundation Formula Quiz

Foundation Tier

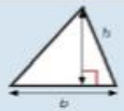
Weeks 1, 2 &3

Areas

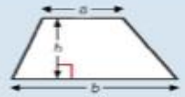
Rectangle = $l \times w$

Parallelogram = $b \times h$

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



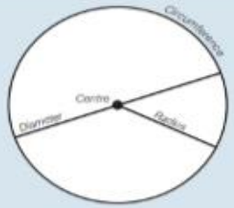
Trapezium = $\frac{1}{2}(a+b)h$



Circles

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

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



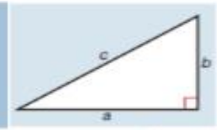
Area of a circle = $\pi \times radius\ squared = \pi r^2$

Right-angled triangles

Pythagoras' Theorem

For a right-angled triangle,

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



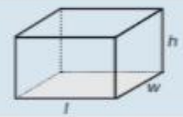
Trigonometric ratios (*new to F*)

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

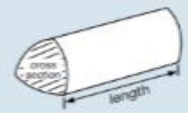
Weeks 4, 5 & 6

Volumes

Cuboid = $l \times w \times h$



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



Cylinder = $\pi r^2 h$

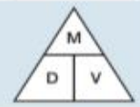
Compound measures

Speed

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

Density

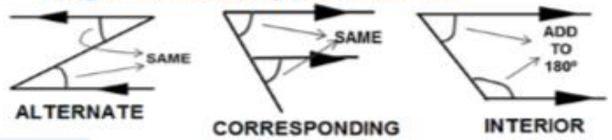
density = $\frac{mass}{volume}$



Pressure

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

Angles formed by parallel lines



Foundation Formula Quiz

Weeks 7, 8 & 9

Constructing Pie Charts

The angle to draw for each sector is

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

Angles in Polygons

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

Where n is the number of sides of the shape

Exterior Angles add up to 360°

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

$Interior + Exterior = 180°$

Other useful formulae

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

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

Types of numbers

SQUARE NUMBERS

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

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

CUBE NUMBERS

→ 1, 8, 27, 64, 125 etc

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

PRIME NUMBERS

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

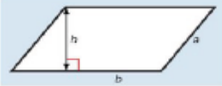
Year 11 CYCLE 1 MATHS - Higher Formula Quiz

Higher Tier

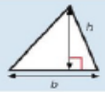
Weeks 1, 2 &3

Areas

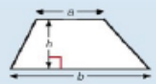
Parallelogram = $b \times h$



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



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



Circles

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

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

Area of a Sector

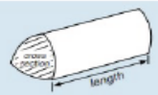
$A = \frac{\theta}{360°} \times \pi r^2$

Length of an Arc

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

Volumes

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



Cylinder = $\pi r^2 h$

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

Weeks 4, 5 & 6

Angles in Polygons

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

Where n is the number of sides of the shape

Exterior Angles add up to 360°

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

$Interior + Exterior = 180°$

Compound measures

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

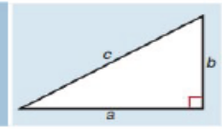
Density: density = $\frac{mass}{volume}$

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

Right-angled triangles

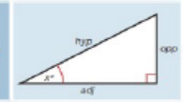
Pythagoras' Theorem

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

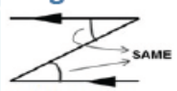


Trigonometric ratios (*new to F*)

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



Angles formed by parallel lines



ALTERNATE

CORRESPONDING

INTERIOR

Weeks 7, 8 & 9

Quadratic equations

The Quadratic Equation

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

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

Indices and surds

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

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

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

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

Straight lines

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

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

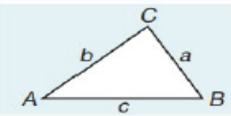
Perpendicular gradients multiply to give –1.

Trigonometric formulae

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

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

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



x	0°	30°	45°	60°	90°
$sinx$	0	$\frac{1}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{\sqrt{3}}{2}$	1
$cosx$	1	$\frac{\sqrt{3}}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{1}{2}$	0
$tanx$	0	$\frac{1}{\sqrt{3}}$	1	$\sqrt{3}$	Undefined (asymptote)

Year 11 Cycle 1 COMBINED SCIENCE

Year 11 Combined Science Cycle One

Key Vocabulary

1. **Adrenaline:** Hormone released from **adrenal glands** in a **"flight or fight"** situation when you are scared or excited.
2. **Aerobic respiration:** chemical reaction releasing energy using oxygen.
3. **Anaerobic respiration:** chemical reaction releasing a small amount of energy without oxygen present.
4. **Arteries**: blood vessels which carry oxygenated blood around body.
5. **Capillaries:** small blood vessels that reach cells.
6. **Diatomic molecule:** molecule with **2 atoms.**
7. **Electrolysis:** method used to breakdown ionic compounds using electricity.
8. **Electrolyte:** ionic substance in liquid form that can be used in electrolysis to separate the ions.
9. **Erythrocytes:** red blood cells, these carry oxygen.
10. **Exothermic:** a reaction that releases energy to its surroundings e.g. combustion or respiration.
11. **Hormone:** a chemical messenger produced by hormonal glands and travels in the blood.
12. **Insulin:** hormone that **decreases blood glucose**
13. **Lactic acid:** the product of anaerobic respiration.
14. **Ore:** rock that contains enough of a compound to extract metal for profit.
15. **Plasma:** watery content of blood which carries dissolved glucose, urea and mineral ions.
16. **Platelets:** cell fragments found in blood which are responsible for clotting.
17. **Redox reactions**: called so because reduction and oxidation reactions occur at the same time.
18. **Thyroxine:** hormone that helps regulate the metabolism.
19. **Waist-to-hip ratio:** measurement used to calculate the risk of heart disease.

Week One

1. **Homeostasis** is the **maintenance** of a **constant internal environment** in the body.
2. **Hormone**: a **chemical messenger** that travels in the **blood.**
3. **Adrenaline** is produced in the **adrenal glands** and **thyroxine** in the **thyroid.**
4. **Target organ:** an organ which a **hormone targets** and **acts**, e.g. the **heart, liver, muscle.**
5. **The menstrual cycle:**
   a) changes that take place inside the **woman's reproductive system** over **28 days**
   b) in preparation for **an egg** to be **fertilised** From **puberty** to **menopause**
   c) Ovulation, when an egg is relaxed from an ovary
6. The **hormones** that control the **menstrual cycle are: Luteinising hormone (LH), Follicle stimulating hormone (FSH), Progesterone, Oestrogen.**

Week Two

1. **Endocrine gland:** a **gland** which releases a **hormone**: pituitary gland, thyroid gland, ovaries and testes.
2. **Blood glucose** levels are **controlled** by **insulin** and **glucagon secreted** from the **pancreas.**
3. **Insulin decreases** the **concentration** of **blood glucose levels.** It is used as a **treatment** for **type 1 diabetes.**
4. **Diabetes** is detected with **urine tests.**
5. **Insulin** causes **excess glucose** in the **blood** to be stored as **glycogen** in the **liver** or **muscles.**
6. **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.**
7. **Type 2 diabetes** is caused by insulin-releasing cells **not producing enough insulin** or target organs **not responding to insulin.**

Week Three

1. There are many components of blood including: **erythrocytes** (red blood cells), **white blood cells** (phagocytes and lymphocytes, **plasma and platelets.**
2. The blood vessels have several adaptions:
   a) **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.
   b) **Arteries:** carry oxygenated blood away form 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
   c) **Capillaries:** site of exchange between blood and body tissues. **One cell thick** to enable rapid diffusion to occur.

Week Four

1. **Respiration** is the chemical reaction which takes place in the cells. Its purpose is to **release energy**. It is an **exothermic reaction.**
2. **Aerobic respiration:**
   a) Takes place in the **mitochondria** of cells
   b) Releases a **large amount of energy**
   c) Reaction uses oxygen
   d) **Glucose + oxygen → carbon dioxide + water**
3. **Anaerobic respiration:**
   a) Takes place in the **cytoplasm** of cells
   b) No oxygen is present
   c) Less energy is released
   d) A by-product called **lactic acid** is formed
   e) **Glucose → lactic acid**
   f) **Lactic acid** causes muscle fatigue.

Year 11 Cycle 1 COMBINED SCIENCE

Week Five

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.
An ionic substance with freely moving ions is called an **electrolyte**.
Two electrodes are connected to **a direct current** electricity supply and placed into the electrolyte.
The positive electrode is called the **anode**.
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.
Cations are positive ions.
Anions are negative ions.

Week Six

1. An **ore** is a rock that contains enough of a compound to **extract** a metal for profit.
2. Metals that are **more reactive** than Carbon are extracted by **electrolysis** (expensive).
3. Metals **less reactive** than Carbon are extracted by **heating with Carbon**.
4. **Bioleaching** and **phytoextraction** are biological methods of extracting metals.
5. **Reduction** is when **oxygen is removed** from a compound during the metal extraction.
6. **Oxidation** is the **gain of oxygen** by a substance. Oxidation and reduction always occur together (**Redox reactions**).
7. **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.
8. **Life cycle assessments** test for environmental impact of a product.

Week Seven

1. **Reversible reactions** happen when the **products** in a reaction react to **reform the reactants.**
2. **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.**
3. Dynamic equilibrium only occurs in **closed systems** as no product or reactant is **lost.**
4. **Haber process**: used to manufacture ammonia, using a temperature of 450°C, pressure of 200atm and the use of an iron catalyst.

forward reaction

ammonium chloride ⇌ ammonia + hydrogen chloride

$NH_4Cl(s) \rightleftharpoons NH_3(g) + HCl(g)$

backward reaction

Week Eight

1. **Group 1 (Alkali metals) –** all have:
   a) 1 electron in their outer shell,
   b) form 1^+ ions,
   c) 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,
   d) are soft, float on water
   e) relatively low melting points.
2. **Group 7 (Halogens)** – all have:
   a) 7 electrons in their outer shell,
   b) form a 1^- ion,
   c) 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,
   d) are all **diatomic** (travel in pairs, Cl_2)

Week Nine

1. **Group 0 (Noble gases) -**
   a) are inert (unreactive) because they have a full outer shell,
   b) have a low density,
   c) colourless,
   d) poor conductors of heat
   e) are non-flammable.
2. **Density** is the number of particles in a given volume: **Density= mass ÷ volume**
3. When a solid stores more thermal energy the **vibrations of particles** increase.
4. The speed of particles in liquids and gases increase when they are storing more energy.
5. **Temperature** is a measurement of the movement of particles.
6. The amount of **thermal energy stored** in an object depends on its **temperature, mass** and the **material it is made from.**

Week Ten

1. **Specific heat capacity** is the amount of energy needed to raise 1kg of material's temperature by 1°C.
2. SHC of an object is **dependent on** its temperature, mass and material.

$$\text{change in thermal energy (J)} = \text{mass (kg)} \times \text{specific heat capacity (J/kg °C)} \times \text{change in temperature (°C)}$$

2. **Specific latent heat** is the amount of energy required to make a substance

$$\text{thermal energy needed for a change of state (J)} = \text{mass (kg)} \times \text{specific latent heat (J/kg)}$$

2. **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 undernutrition – 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

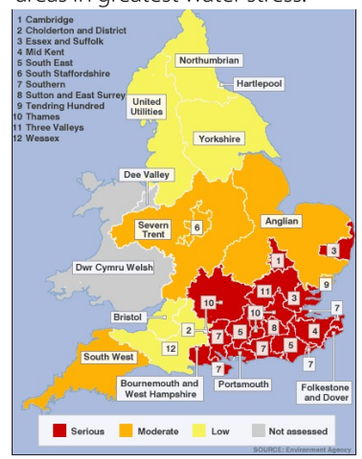
Almost 50% of the UK's water supply is used in households (known as **domestic use**).

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 each 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.

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

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.

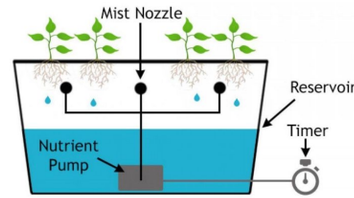
Social unrest: Incidents - sometimes called 'food riots' – correspond with high rises in the price of food. In 2011, the price of cooking oil and flour doubled. In Algeria, this led to five days of rioting, with four people killed.

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 famers 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.

West Exe School
community • opportunity • success

Year 11 History Cycle 1 Knowledge Organiser A: Life in Nazi Germany, 1933-39

Learn these words in **Week 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.





West Exe School
community • opportunity • success

Year 11 History Cycle 1 Knowledge Organiser B: 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.

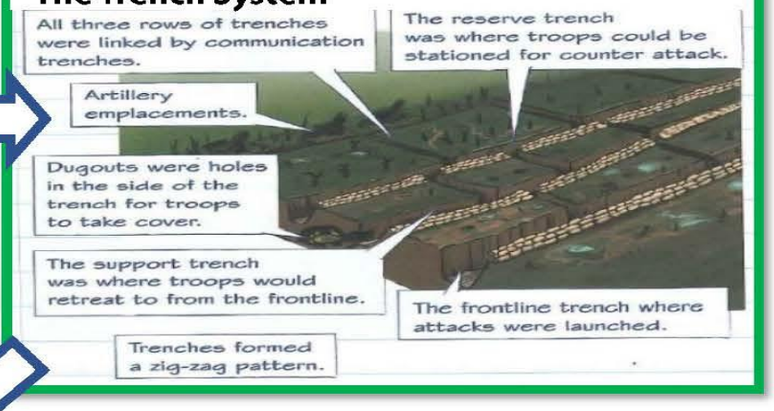
Third Battle of Ypres, July–November 1917
The British used a creeping barrage to make small gains to break out of the Ypres Salient. The awful weather left the ground waterlogged and many drowned.

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



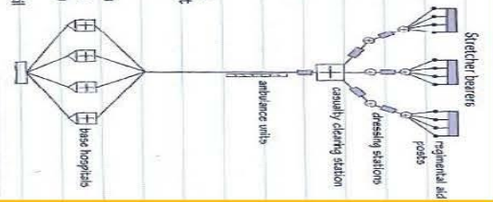
Illnesses and injuries

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.



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Year 11 History Cycle 1 Knowledge Organiser B: 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 1a WEST EXE BACCALAUREATE - Money Skills

Week 1 - Glossary

APR: The Annual Percentage Rate is the cost of a loan (i.e. the original loan plus the interest) over the course of one year. The higher the APR, the more expensive the cost of borrowing. Example: If you borrowed £1,000 with 29.9% APR and paid this back over one year, you would pay £1,299 (£1,000 loan + £299 interest)

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 2018/2019 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)

Week 2

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

Top tips for bank accounts

- Make sure your details are correct. If you're moving home, tell your bank
- Check your bank statement to check all the transactions listed are genuine

Week 3

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 (continued)

- Make sure you understand all acronyms and terms
- Keep your bank details somewhere safe
- Shred paper statements, or opt for online paperless banking

Week 4

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

Top tips for creating your own budget

1. Choose the period of time your budget needs to cover
2. List all the ways you earn or gain money and add together to get your total income

Week 5

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 (continued)

3. List all the ways you spend and add these up to get your total expenditure
4. Take your spending from your total income. Any money left over can be saved

Year 11 Cycle 1b WEST EXE BACCALAUREATE - War and Peace

WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10
Peace: Peace is not just the absence of conflict; real peace involves a feeling of safety and well-being. **Pacifism:** Pacifism is based on the belief that violence against other human beings is always wrong. Pacifists think that wars cannot be justified and therefore refuse to fight in them. A person who refuses to fight in a war may also be called a 'conscientious objector' because killing is against their conscience, their moral sense of right and wrong. **What do pacifists believe?** • All humans deserve respect and should not be killed • Killing goes against religious teachings • War causes suffering, hatred, prejudice, etc. The suffering caused by war is greater than the evil being fought • War destroys the environment, and wastes lives and resources that could have been used for good, e.g. in the fight against poverty or world hunger	**Holy war.** Holy wars have religious goals. They are authorised by God or a religious leader. People who take part believe they will receive a spiritual reward. A holy war may be declared to defend a religion or religious believers who are being persecuted for their faith. **Just war.** Many religions teach that war is justifiable if it is the only course of action that will prevent a real evil. A war can only be considered 'just' if certain conditions are met: 1. Have a just cause (e.g. self-defence) 2. Be lawfully declared by a proper authority, (that is, the government or ruler) 3. Have a good intention and must end when the aim has been achieved 4. Be a last resort 5. Have a reasonable chance of success 6. Be fought by just means (e.g. civilians must not be harmed) 7. Be proportional (that is excessive force should not be used) 8. Only happen if the good achieved is greater than the evil that led to the war.	**Weapons of Mass Destruction** (WMD)**:** Weapons that can cause huge amounts of damage and kill large numbers of people at once. Examples of WMD are: **Biological weapons:** These contain diseases (viruses or bacteria). If these enter the atmosphere, food chain or water supply the result will be illness and death on a massive scale. They were banned by the Geneva Conventions, but are still being developed by many nations. **Chemical weapons:** These contain chemicals which can cause choking, burning, paralysis and the destruction of the environment. They were used in the First World War. They were banned in 1925 but were used by the USA in Vietnam and by Iraq against Iran and the Kurds. **Nuclear weapons:** These work by nuclear reaction and cause huge devastation. The radioactive fallout kills more people than the original explosion. Today's nuclear weapons are so powerful that If used, the result would be a 'nuclear winter'; the ultraviolet radiation would destroy life on Earth.	**Christians and pacifism** • Christian pacifists follow the example of Jesus who did not use violence and taught his followers to live and work for peace. Christian pacifists are willing to die, but not kill, for their beliefs. Many pacifists refuse to fight in a war but will do non-fighting roles such as being part of a medical unit. • Christian denominations have pacifist groups, e.g. the Catholic group, Pax Christi. **Christianity and war** • The Catholic Church promotes peace and opposes the use of WMD, but recognizes the right of self-defence as a last resort. • Many other Christians also accept that violent action is sometimes necessary., e.g. Dietrich Bonhoeffer, a German Christian minister who was involved in a plot to kill Hitler. He believed that violence to remove one man was better than letting millions of Jews be killed. • Some South American Christians support 'liberation theology'. They accept the need to fight to overthrow corrupt, unjust and oppressive governments.	**Islam and peace** • Muslims seek a just and peaceful world. • The word 'Islam' means 'peace' and Muslims say 'Salaam' ('Peace be upon you') when they greet each other. • The Qur'an teaches that peace and reconciliation are better than fighting. • Muslims should forgive and not seek revenge as it is wrong to return evil with evil. **Islam and war** • Muslims believe in 'jihad' (an Arabic word meaning 'to struggle' - fight). • The greater jihad is the personal struggle against temptations to do wrong. • The lesser jihad is a military struggle in defence of Islam and justice. A lesser jihad must: • be started and controlled by a spiritual leader. • have a just cause. • be a last resort. • keep suffering to a minimum. • protect trees, crops and animals. • not be fought to gain land, or as an act of aggression. • aim to restore peace and freedom. • enable the release of all prisoners of war.

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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