

Beckfoot School

Knowledgeable And Expert Learners

10 Year

2023/24

Jan - Feb

enjoy learnsucceed

Name:

Tutor group:

Contents

- Homework Instructions QR Codes 3
- Independent Learning: Revise Like a Beckfooter 4
- Read and Reflect Like a Beckfooter 5
- Self-quizzing and knowledge organisers 6
- Beckfoot Power Hour 61
- Flashcards instructions and templates 62
- Mind-maps instructions and templates 73
- Brain-dumps instructions and templates 79
- Learn Like a Beckfooter Rewards 80

What should you be working on each week?

Homework:

- Your teacher will set specific tasks, with a deadline, on Class Charts
- Instructions for your homework and how to access it are in this booklet
- You must complete and hand in the work by the deadline

Independent Learning: Revise Like a Beckfooter

- You should complete 1 task per day, 5 days a week
- The tasks will be set on Class Charts to help you keep track
- You can choose the subject/topic you want to work on
- Your tutor will check your ILB at regular intervals
- You will be rewarded for going above and beyond expectations

Homework Instructions

- All of your Homework will be set by your teachers using the Class Charts system.
- You should check Class Charts every day to make sure you are up to date, and that you meet all your deadlines.
- In the next few pages, you will find instructions for how to access Class Charts and how to complete your homework assignments in each of your subjects.

Logging in to Class Charts

Follow the steps below to access your student account.

1. Enter your email address and password into the fields provided.

Access code*
Your access code

Please enter the access code supplied by your teacher.
☒ Remember me

2. Click on the Log in button.

LOG IN

3. Enter your date of birth if prompted and click on the OK button.

Date of birth

Please enter your date of birth below.

Date of birth
12/06/2009

OK CANCEL

Homework

If your school has decided to share homework with pupils, you will see the Homework tab in your account.

Selecting this tab will display a list of the homework tasks which you have been given.

To change the date range for displayed homework tasks, click on the orange Date button.

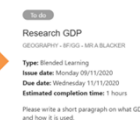
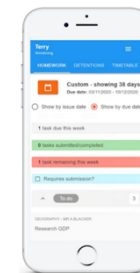
To display tasks in the order they were set, click on the Issue Date button.

To display tasks in the order they are expected to be handed in, click on the Due date button.

To mark a homework task as completed, view the homework task of your choice in more detail and tick the Completed? checkbox.

To view a homework task in more detail, click on the expand icon in the bottom right hand corner of the homework tile.

A popup will appear that contains the description of the homework task, the estimated completion time and any links or attachments that may have been included.



Keeping track of homework

As you are assigned homework tasks, you may want track of how you are progressing for the current week.

The three banners above the homework status categories count the number of homework tasks that are due this week, how many of those tasks you have completed and how many tasks you still need to complete.

To only see homework tasks that require an attachment submission, tick the checkbox labelled Requires submission.

1 task due this week

0 tasks submitted/completed

1 task remaining this week

☐ Requires submission?

If you are viewing the Homework tab via a desktop or laptop, expanding a homework status category will display a table overview of each homework task for the selected date range.

To do									
Homework %	Teacher %	Lesson %	Issued %	Due %	Estimated time %	Type %	Feedback %		
<input checked="" type="checkbox"/>	Research GDP	Mr A. Blacker	Bf/Gg	Monday 09/11/2020	Wednesday 11/11/2020	1 hours	Blended Learning		
<input checked="" type="checkbox"/>	Write a soliloquy	Mr J. Kato	Bf/En2	Tuesday 10/11/2020	Tuesday 17/11/2020	30 minutes	Homework		
<input checked="" type="checkbox"/>	Create a poster on French food	Mrs A. Abell	7YEL/FF	Friday 06/11/2020	Thursday 19/11/2020	45 minutes	Homework	Feedback	

Homework status categories

To-Do: These are homework tasks that you need to complete. Once you have completed them, tick the checkbox.

Completed: These are homework tasks that you need to complete but have not been marked by your teacher.

Late: These are homework tasks that have been handed in past the deadline.

Not submitted: These are homework tasks that were not handed in on time.

Submitted: These are homework tasks that have been handed in on time.

To do

Completed

Submitted late

Not submitted

Submitted

Homework Instructions

Scan the QR codes below to find instructions for each subject's homework and access to independent learning resources.



SCAN ME

Maths



SCAN ME

English



SCAN ME

Science



SCAN ME

MFL



SCAN ME

Humanities



SCAN ME

D&T



SCAN ME

Perf. Arts



SCAN ME

Art



SCAN ME

Music



SCAN ME

Computing



SCAN ME

Knowledgeable &
Expert Learners



SCAN ME

Confident
Communicators

How to access My Learning Resources

My Learning Resources is an online space where you can find all your lesson PowerPoint, knowledge organisers, quizzes and more. This will help you to learn independently and catch up any missed work.

1. Select 'Student Zone' on the homepage of our website

2. Select 'My Learning Resources'

3. Select the subject you want to work on

3. Select your year group

3. Select the relevant half term.
All the resources you need will be here

You may be asked to enter your school email address and password here

How to access Seneca

Seneca learning is a free online platform that will help you revise for all your subjects.

1. Go to <https://senecalearning.com/en/GB/>

2. Click 'log in' of the top right hand corner.

3. Select 'Continue with Microsoft'.

4. Enter your school email and password.

5. Select the course(s) you want to work on.

You can also scan this QR code for a video walkthrough of how to log in as a student!

SCAN ME

Independent Learning at KS4: Revise Like a Beekooter

Independent Learning at KS4 is all about getting you ready for your exams at the end of Y11.

To be successful at exams, it is helpful to understand how memory works. Scientific research into memory and learning tells us that:

- Memories weaken over time
- We forget the most soon after learning
- Stress makes it harder to remember things

You will learn lots of new information over your GCSE years, and you will have to remember that material in your exams at the end. So how can you ensure that you don't forget all that knowledge?

- Revise regularly and repeatedly
- Revise using strategies that are proven to be effective
- Don't leave revision until the last few weeks before exams

With all this in mind, we have designed a system of structured revision. This will help you develop really strong independent learning habits that will ensure you can:

- a) learn more effectively and
- b) reduce your stress at exam time

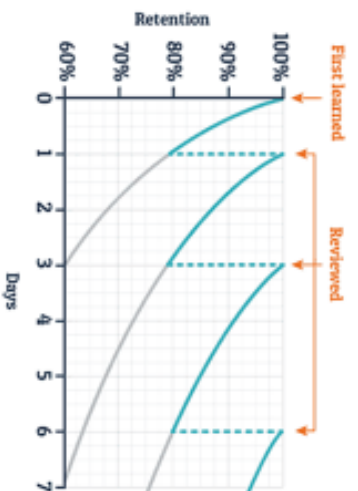
What we expect from you:

- 5 revision tasks per week using the specified revise like a Beekooter strategy (on Class Charts)
- You choose the subjects – we set the tasks
- Bring your ILB to school every day

What you can expect from us:

- Support with your revision through tutor and lessons
- Revision tasks on Class Charts to help you stay on track
- Your ILB will be checked regularly by your tutor

Typical Forgetting Curve for Newly Learned Information



Our evidence-informed 'Revise Like a Beekooter' strategies:

1. Self-quizzing
2. Flash Cards
3. Mind-Maps
4. Brain Dumps

Read Like a Beckfooter

Vocabulary

- Do you understand the words of the text?
Highlight any you're unsure of, then ask yourself these questions:
- 1. Can you work out the word from its context? What does it seem like it means?
- 2. Does it look like any other words you know? Could it mean something similar?
- 3. If you can't figure it out for yourself, look the word up in a dictionary or online



Comprehension

- This means understanding a text. There are two things to think about:
 - 1. Do you understand what it means literally?
 - 2. Can you see what's implied?
- To achieve these things:
1. Slow down your reading – many people miss key parts in texts because they go too fast
 2. Look carefully at punctuation, which is designed to help you take pauses in the right places
 3. Ask a trusted adult to read the text to/with you
- Remember: not every text has implied meaning.
In English there will be lots, but there will be very little in many Science and Maths texts.

Summarising

- A good summary expresses what really matters about a text as briefly as possible. If you can summarise a text, you must have understood it.
 - Follow these steps:
 - 1. Summarise the text in five words
 - 2. Summarise the text in twenty words
 - 3. Summarise the text in fifty words
- Each time you will have added more information, but you won't have included everything.
By following the process, you've decided what matters and what doesn't.

Reflect Like a Beckfooter

As Knowledgeable and Expert Learners, we are great at being reflective. We ask ourselves lots of questions before, during and after a task, not just at the end! This helps us to make good choices about what we need to do, and the best way to do it. It also helps us to stay motivated, even when things get tough. Finally, it helps to make sure we always complete learning tasks to the very best of our ability.

Before a task, ask yourself:

- Comprehension**
What is this task about?
What do I understand about it?
- What am I being asked to do?
- Connection**
What do I already know about this?
- Have I seen anything like this before?
- How is this similar or different to other tasks I have done?
- Strategy**
Do I know any strategies that would be appropriate for this task?
- Which strategy would be most helpful to me now?
- Have I used this strategy before?
- Was it successful?
- How can I ensure I am successful this time?

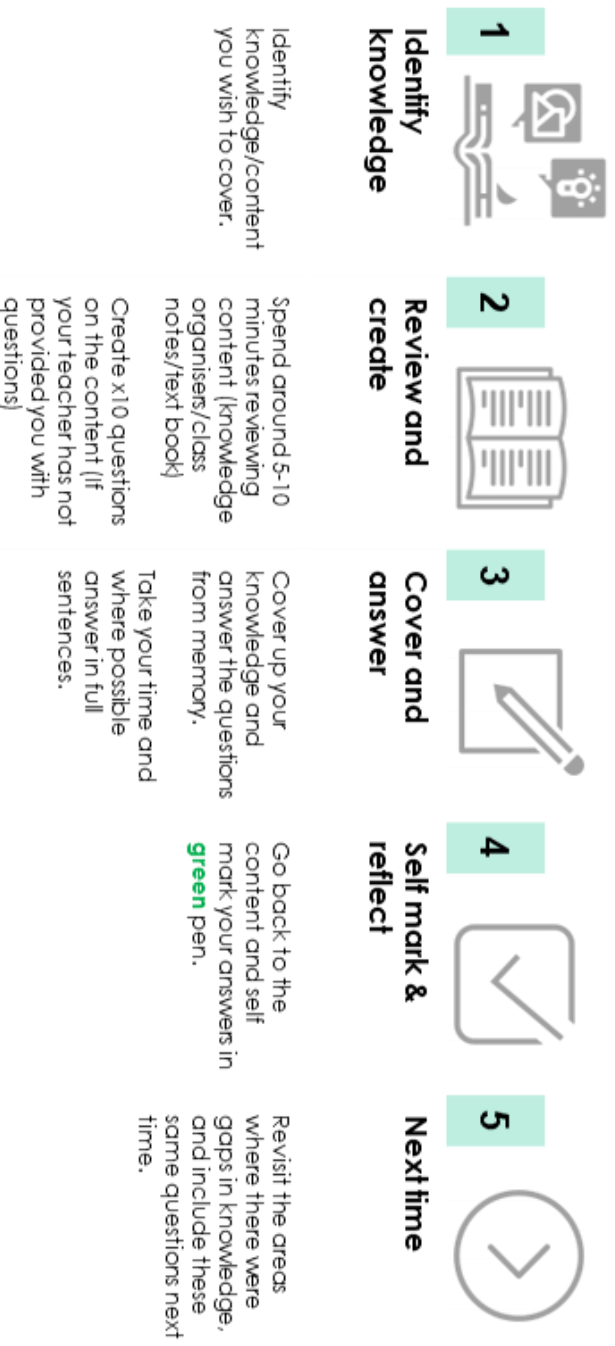
During a task, ask yourself:

- Reflection (during the task)**
How is this going?
- What mistakes do I often make in this kind of task?
- How can I avoid making those mistakes?
- What am I finding difficult right now?
- What am I doing well?
- How do I know?
- How do I feel about the work?
- Am I motivated to complete this task to a high standard?
- What can I do to improve my motivation level right now?

After a task, ask yourself:

- Reflection (after the task)**
Does my finished work look successful?
- Does it make sense?
- How do I know?
- Could I have done this a different way?
- Is this work better than I have done in the past?
- How do I know?
- How did my motivation level affect my performance in the task?
- What emotions did I experience during the task?
- Why?
- How can I motivate myself in a different way in the future?
- Explain

Self-quizzing



Ensure that you complete all subjects and all topics – not just the subjects you enjoy the most of find easiest.
Practice makes perfect!

Use this table to help you keep track of the knowledge organisers you have self-quizzed on and checked this half term. Blank versions follow every organiser.

Week 1	Which Subject/Topic?	Week 2	Which Subject/Topic?
Day 1		Day 1	
Day 2		Day 2	
Day 3		Day 3	
Day 4		Day 4	
Day 5		Day 5	

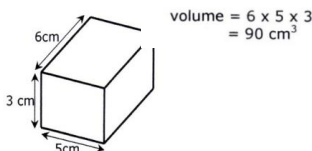
Probability

3 Sample Space The **set of all possible outcomes** of an experiment.

	+	1	2	3	4	5	6
1	2	3	4	5	6	7	
2	3	4	5	6	7	8	
3	4	5	6	7	8	9	
4	5	6	7	8	9	10	
5	6	7	8	9	10	11	
6	7	8	9	10	11	12	

Geometry and Measure – Area, Length and Volume

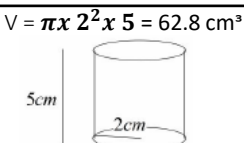
1 Volume of a Cube/Cuboid
 $V = \text{Length} \times \text{Width} \times \text{Height}$



2 Volume of a Prism
 $V = \text{Area of Cross Section} \times \text{Length}$



3 6. Volume of a Cylinder
 $V = \pi r^2 h$



Number – Indices and Standard Form

1 Square Number
 1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144, 169, 196, 225...

The number you get when you **multiply a number by itself**.

2 Square Root
 $\sqrt{36} = 6$

The **number you multiply by itself** to get another number (The reverse process to squaring a number)

3 Cube Number
 1, 8, 27, 64, 125...

The number you get when you **multiply a number by itself and itself again**.

Cube Root
 $\sqrt[3]{125} = 5$

The **number you multiply by itself and itself again** to get another number. The reverse process of cubing a number.

4 Multiplying with Standard Form
 $(1.2 \times 10^3) \times (4 \times 10^6) = 8.8 \times 10^9$

Multiply the numbers and add the powers.

5 Dividing with Standard Form
 $(4.5 \times 10^5) \div (3 \times 10^2) = 1.5 \times 10^3$

Divide the numbers and subtract the powers.

6 Adding or subtracting with Standard Form
 $2.7 \times 10^4 + 4.6 \times 10^3 = 27000 + 4600 = 31600$

Convert in to **ordinary** numbers, **calculate** and then **convert back** in to standard form

Key Vocabulary

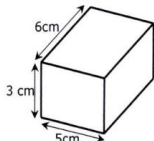
1	Formulae	Show the relationship between two or more variables
2	Substitution	Replace letters with numbers.
3	Inverse	Opposite
4	Volume	The amount of space inside a solid shape.
5	Surface Area	The total area on the surface (faces) of a three-dimensional shape
6	Prism	A prism is a 3D shape whose cross section is the same throughout.
8	Mutually Exclusive	Events are mutually exclusive if they cannot happen at the same time .

Probability


3 Sample Space The **set of all possible outcomes** of an experiment.

Geometry and Measure – Area, Length and Volume

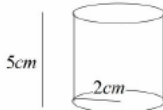
1 Volume of a Cube/Cuboid
 $V = \text{Length} \times \text{Width} \times \text{Height}$



2 Volume of a Prism
 $V = \text{Area of Cross Section} \times \text{Length}$



3 6. Volume of a Cylinder
 $V = \pi r^2 h$



Number – Indices and Standard Form

1 Square Number
1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144, 169, 196, 225...

2 Square Root
 $\sqrt{36} = 6$

3 Cube Number
1, 8, 27, 64, 125...

Cube Root
 $\sqrt[3]{125} = 5$

4 Multiplying with Standard Form
 $(1.2 \times 10^3) \times (4 \times 10^6) = 8.8 \times 10^9$

5 Dividing with Standard Form
 $(4.5 \times 10^5) \div (3 \times 10^2) = 1.5 \times 10^3$

6 Adding or subtracting with Standard Form
 $2.7 \times 10^4 + 4.6 \times 10^3 = 27000 + 4600 = 31600$

Key Vocabulary

1 Formulae

2 Substitution


3 Inverse

4 Volume

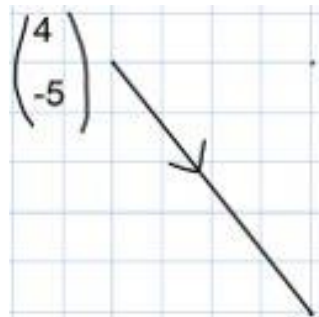
5 Surface Area

6 Prism


8 Mutually Exclusive

Geometry: vectors		
1	Add and subtract vectors	<p>If $\mathbf{x} = \begin{pmatrix} a \\ b \end{pmatrix}$ and $\mathbf{y} = \begin{pmatrix} c \\ d \end{pmatrix}$</p> $\mathbf{x} + \mathbf{y} = \begin{pmatrix} a+c \\ b+d \end{pmatrix}$ $\mathbf{x} - \mathbf{y} = \begin{pmatrix} a-c \\ b-d \end{pmatrix}$
2	Multiplication of a vector by a scalar	$4 \times \begin{bmatrix} 1 \\ 2 \end{bmatrix} = \begin{bmatrix} 1 \times 4 \\ 2 \times 4 \end{bmatrix} = \begin{bmatrix} 4 \\ 8 \end{bmatrix}$
3	Represent a vector on a diagram	

Algebra – Simultaneous Equations		
1	Solve by Substitution	Usually used for quadratic equations – Rearrange and Substitute
2	Solve by Elimination	Usually used for linear equations – same signs subtract, different signs add.
3	Solve Graphically	The solution is found at the points of intersection

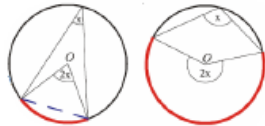
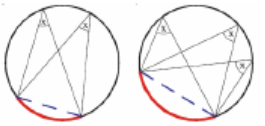
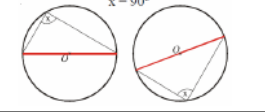
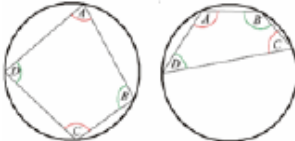
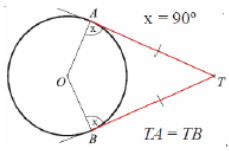
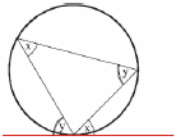


Subject: Maths	Term: Half Term 4 - January	Year Group: 10F
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Geometry: vectors		
1	Add and subtract vectors	<p>If $\mathbf{x} = \begin{pmatrix} a \\ b \end{pmatrix}$ and $\mathbf{y} = \begin{pmatrix} c \\ d \end{pmatrix}$</p> <p>$\mathbf{x} + \mathbf{y} = \begin{pmatrix} a+c \\ b+d \end{pmatrix}$</p> <p>$\mathbf{x} - \mathbf{y} = \begin{pmatrix} a-c \\ b-d \end{pmatrix}$</p>
2	Multiplication of a vector by a scalar	
3	Represent a vector on a diagram	<p>See diagram</p>  <p>ite</p>

Algebra – Simultaneous Equations		
1	Solve by Substitution	
2	Solve by Elimination	
3	Solve Graphically	

Geometry & Measure – Properties of Circles

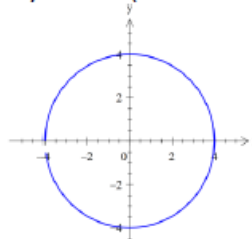
1	The angle at the centre is twice the angle at the circumference	
2	Angles at the circumference in the same segment are equal	
3	Angle in a semicircle are 90°	
4	Opposite angles of a cyclic quadrilateral add to 180° $A + C = 180^\circ$ $B + D = 180^\circ$	
5	The angle between a tangent and radius is 90° Two tangents from the same point to a circle are equal lengths.	
6	Alternate segment 	7

Equation of a circle






$$x^2 + y^2 = r^2$$

Circle with centre (0,0) and radius r

$$x^2 + y^2 = 16 \quad (r = \sqrt{16} = 4)$$



Key Vocabulary

1	Chord	A line which touches the circumference at each end	
2	Arc	A section from the circumference of a circle	
3	Segment	The region of a circle bounded by a chord and the arc subtended by the chord	
4	Sector	The region of a circle bounded by two radii and an arc	
5	Tangent	A line outside a circle which only touches the circumference at one point	




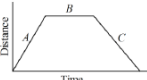
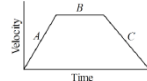
Geometry & Measure – Properties of Circles

1	The angle at the centre is twice the angle at the circumference	
2	Angles at the circumference in the same segment are equal	
3	Angle in a semicircle are 90°	
4	Opposite angles of a cyclic quadrilateral add to 180° $A + C = 180^\circ$ $B + D = 180^\circ$	
5	The angle between a tangent and radius is 90° Two tangents from the same point to a circle are equal lengths.	
6	Alternate segment	7 Equation of a circle Circle with centre (0,0) and radius r


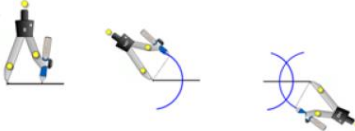
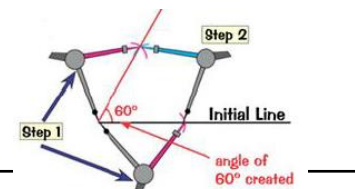
Key Vocabulary

1	Chord	
2	Arc	
3	Segment	
4	Sector	
5	Tangent	


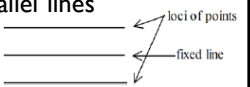
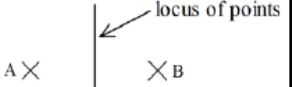
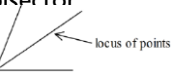
Ratio, Proportion and rates of change – Compound Measures

1	Density	$\text{density} = \frac{\text{mass}}{\text{volume}}$ <p>The mass of a substance contained in a certain volume</p> <p>Usually measured in g/cm³ or kg/m³</p>	
	Pressure	$\text{pressure} = \frac{\text{force}}{\text{area}}$ <p>The force applied over an area</p> <p>Usually measured in N/m²</p>	
	Speed	$\text{speed} = \frac{\text{distance}}{\text{time}}$ <p>The distance travelled in an amount of time</p> <p>Usually measured in m/s (metres per second) or km/h (kilometres per hour) or mph (miles per hour)</p>	
2	Distance-Time Graphs	 <p>A = steady speed, B = no movement, C = steady speed back to start</p>	
3	Velocity-Time Graphs	 <p>A = steady acceleration, B = constant speed, C = steady deceleration back to a stop</p> <p>The area under the graph = distance travelled</p>	

Geometry & Measure – Construction

1	Angle bisector	
2	Perpendicular bisector	
3	Constructing 60° angles	

Geometry & Measure – Loci

1	Circle		The locus of points that are a fixed distance from a fixed point
2	Parallel lines		The locus of points a fixed distance from a fixed line
3	Perpendicular bisector		The line that cuts another in half at right angles
4	Angle bisector		The locus of points equidistant between two fixed points

Key Vocabulary

1	Compound Measures	Combine measures of two different quantities
2	Velocity	Speed in a given direction, measured in m/s
3	Acceleration	The rate of change of velocity, measured in m/s ²


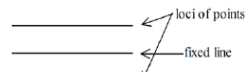
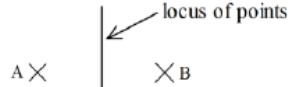
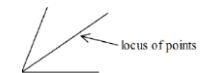
Ratio, Proportion and rates of change – Compound Measures

1	Density Pressure Speed	
2	Distance-Time Graphs	
3	Velocity-Time Graphs The area under the graph = distance travelled	

Geometry & Measure – Construction

1	Angle bisector	
2	Perpendicular bisector	
3	Constructing 60° angles	

Geometry & Measure – Loci

1	Circle 	
2	Parallel lines 	
3	Perpendicular bisector 	
4	Angle bisector 	

Key Vocabulary

1	Compound Measures	Combine measures of two different quantities
2	Velocity	Speed in a given direction, measured in m/s
3	Acceleration	The rate of change of velocity, measured in m/s ²

Plot Summary

1	Prologue	Sets up main themes of the play. Provides an overview of the action.
2	Act 1	Montagues and Capulets brawl. Romeo depressed about Rosaline. Paris wants to marry Capulet's young daughter Juliet. Juliet's mother and Nurse encourage Juliet to marry Paris. Romeo attends Capulet party, sees Juliet and falls in love.
3	Act 2	Balcony Scene – R&J decide to get married. Romeo asks Friar Lawrence to conduct ceremony. Friar Lawrence hopes marriage will end feud. Nurse visits Romeo to check his commitment. Friar Lawrence marries R&J.
4	Act 3	Romeo refuses to fight Tybalt. Mercutio killed by Tybalt and Tybalt by Romeo. Romeo is banished. Juliet told she is to be married to Paris. Capulet flies into a rage after Juliet refuses.
5	Act 4	Juliet asks Friar Lawrence for help. Friar Lawrence supplies a potion and a plan. Juliet agrees to marry Paris. Wedding plans are underway but Juliet found 'dead' by the Nurse.
6	Act 5	Romeo thinks Juliet is dead. He returns to Verona with a poison. Friar Lawrence discovers Romeo did not get his letter. Romeo kills Paris at Juliet's tomb, takes poison and dies. Juliet wakes and finds Romeo, stabs herself. The feud is over.

Characters

1	Romeo Montague	Initially a typical Petrarchan lover, his love for Juliet is incredibly romantic, impulsive and passionate.	6	Lady Capulet	Juliet's mother. Cold and distant for most of the play, she expects Juliet to follow in her own footsteps.
2	Juliet Capulet	Young and innocent, not yet 14. Her love for Romeo matures her and makes her bolder in her defiance.	7	Nurse	Juliet's nursemaid, they have a close relationship. She acts as confidante and messenger for Romeo and Juliet.
3	Lord Capulet	Juliet's father. Shows concern for Juliet's welfare, but can be aggressive and tyrannical when disobeyed.	8	Tybalt	Juliet's ruthless, hot-tempered and vengeful cousin. Has a deep, violent hatred of the Montagues.
4	Mercutio	A relative of the Prince and a high-ranking man. Mixes well with both families and is Romeo's loyal best friend.	9	Benvolio	Cares about his cousin Romeo and tries to keep peace between the families.
5	Paris	A rich and highly-regarded young man, kinsman to the	10	Friar	A caring, trusted, kind man of the Church who is

Themes

1	Love	Romantic, sexual, superficial and platonic forms of love are present in the play.
2	Death	The certainty, fear, acceptance and welcoming of death is portrayed in the play.
3	Fate versus Free Will	This is the idea of an inevitable destiny that cannot be escaped.
4	Honour and loyalty	The importance of family & friendship.
5	Masculinity	The play explores traditional views of masculinity

Context

1	Queen Elizabeth	Reigned from 1558-1603. Her reign saw England prosper and become a major player in Europe. She chose not to marry, defying the expectations of a patriarchal society.
2	Astrology	In both 14th-century Italy and Elizabethan England stars linked to fate and fortune, were believed to predict and influence the course of human events.
3	The role of women	Society was ' <u>patriarchal</u> ' (led by men). Women were said to be lower than men in The Great Chain of Being. Women were expected to marry, to bear children and be subservient to men.

Key Vocabulary

1	Foreshadowing	R&J's deaths are hinted at throughout the play, creating suspense for the audience.
2	Hamartia	Both protagonists can be considered to be tragic heroes: high status, sympathetic characters whose fatal flaws (their impulsiveness) contribute to their inevitable deaths
4	Sonnet	A poem of 14 lines with a strict rhyme scheme, usually associated with love and romance. R&J speak in a shared sonnet when they first meet.
5	Dramatic Irony	Some things are revealed to the audience before the characters, increasing tension.
6	Juxtaposition	Opposites that are placed next to each other. Each idea is being emphasised.
7	Motif	Image, sound, action or other figure that has symbolic significance. Some motifs in R&J include light + dark and poison.

Plot Summary

1	Prologue	
2	Act 1	
3	Act 2	
4	Act 3	
5	Act 4	
6	Act 5	

Characters

1	Romeo Montague		6	Lady Capulet	
2	Juliet Capulet		7	Nurse	
3	Lord Capulet		8	Tybalt	
4	Mercutio		9	Benvolio	
5	Paris		10	Friar	

Themes

1	Love	
2	Death	
3	Fate versus Free Will	
4	Honour and loyalty	
5	Masculinity	

Context

1	Queen Elizabeth	
2	Astrology	
3	The role of women	

Key Vocabulary

1	Foreshadowing	
2	Hamartia	
4	Sonnet	
5	Dramatic Irony	
6	Juxtaposition	
7	Motif	

Equations in this topic

1	Mass, weight and gravity	Weight = mass x gravitational field Units: Weight in Newtons (N) Mass in kilograms (kg) Gravitational field in Newtons per kg (N/kg)
2	Work done	Work done = force x distance Units: Work done in Joules (J) Force in Newtons (N) Distance in metres (m)
3	Spring constant	Force = spring constant x extension Units: Force in Newtons (N) Spring constant in Newtons per metre (N/m) Extension in metres (m)
4	Moments (PHYSICS ONLY)	Moment = force x distance Units: Moment in Newton metres (Nm) Force in Newtons (N) Distance in metres (m)
5	Pressure (PHYSICS ONLY)	Pressure = force / area Units: Pressure in pascals (pa) Force in Newtons (N) Area in metres ² (m ²)

Resultant forces - examples

Two forces, 3 newtons (N) and 2 N, act to the right. Calculate the resultant force.

$$3\text{ N} + 2\text{ N} = 5\text{ N to the right}$$



Two forces acting in the same direction

A force of 5 N acts to the right, and a force of 3 N act to the left. Calculate the resultant force.

$$5\text{ N} - 3\text{ N} = 2\text{ N to the right}$$

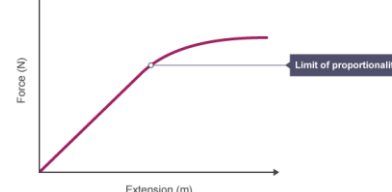


Two forces acting in opposite directions

Required practical – Hooke's law

Extension happens when an object increases in length. The extension of an elastic object, such as a spring, is described by Hooke's law:

$$\text{force} = \text{spring constant} \times \text{extension}$$



Key Vocabulary

1	Resultant Force	The resultant force is a single force that has the same effect as two or more forces acting together
2	Scalar	A quantity that has magnitude only
3	Vector	A quantity that has both magnitude and direction
4	Weight	A result of mass and the gravitational field you are in
5	Mass	The number of particles in an object. Stays the same wherever you are in the universe
6	Work done	Whenever a force is used to move an object through a distance work is done on that object.
7	Inelastic deformation	An object will not return to its original shape and size when the force is removed.
8	Elastic deformation	An object will not return to its original shape and size when the force is removed.
9	Spring constant	Spring constant is a measure of the stiffness of a spring up to its elastic limit.

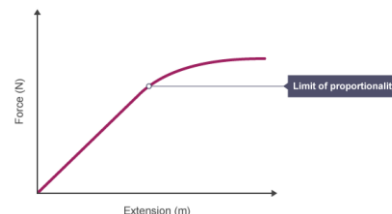
Equations in this topic

1	Mass, weight and gravity	Weight = Units: Weight in Mass in Gravitational field in
2	Work done	Work done = Units: Work done in Force in Distance in
3	Spring constant	Force = Units: Force in Spring constant in Extension in
4	Moments (PHYSICS ONLY)	Moment = Units: Moment in Force in Distance in
5	Pressure (PHYSICS ONLY)	Pressure = Units: Pressure in Force in Area in

Resultant forces - examples

Required practical – Hooke's law

Extension happens when
force =



Key Vocabulary

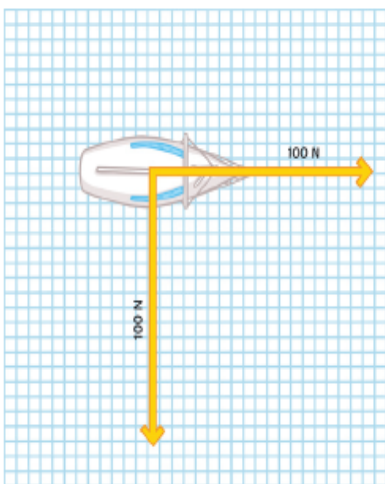
1	Resultant Force	
2	Scalar	
3	Vector	
4	Weight	
5	Mass	
6	Work done	
7	Inelastic deformation	
8	Elastic deformation	
9	Spring constant	

Resultant forces – Vector diagrams

A **scale vector diagram** can be used to calculate **resultant forces** that are not acting directly opposite of one another, on a straight line.

Worked example 1:

A boat is being pulled toward the harbour by two winch motors. Each motor is pulling with a force of 100N and they are working at right angles to one another.



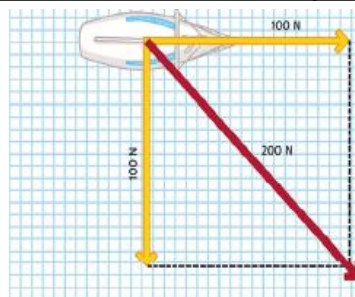
To find the resultant force, you would first draw construction lines from the end of each arrow parallel to the other force arrow.



Remember that the size of the arrow is representative of the size of the force being exerted.

Where the construction lines intercept indicates the direction of the resultant force: from the centre of mass through the intercept.

The resultant force is the sum of the forces acting so in this example, that is 200N.



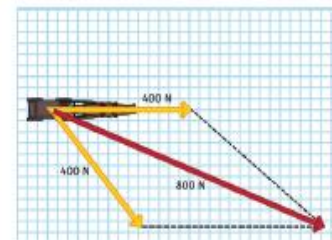
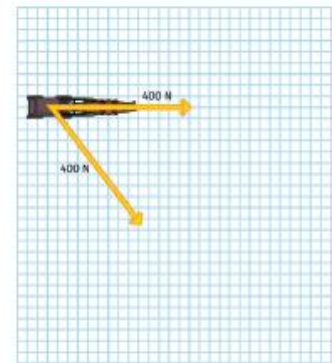
Key Vocabulary

1	Contact Forces	The objects are touching e.g. friction, air resistance, tension and contact force
2	Non-contact Forces	The objects are not touching e.g. gravitational, electrostatic and magnetic forces

Worked example 2:

A horse-drawn carriage is pulled by two horses at 400N each. One of the horses is pulling in a different direction to the other horse. Show the resultant force and direction of the horse-drawn carriage.

As before, you will need to draw construction lines from the end of each force arrow and parallel to the other one. The intercept represents the direction of the resultant force. The resultant force is the sum of the individual forces so in this example, it is 800N.



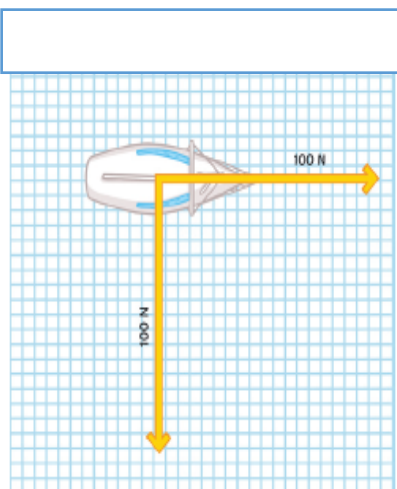
Resultant forces – Vector diagrams

A **scale vector diagram** can be used to calculate **resultant forces** that are not acting directly opposite of one another, on a straight line.

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A boat is being pulled toward the harbour by two winch motors. Each motor is pulling with a force of 100N and they are working at right angles to one another.

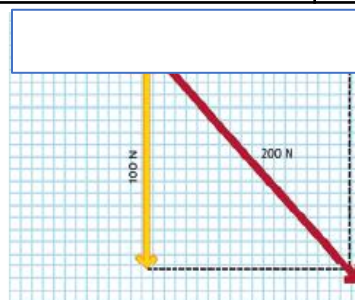
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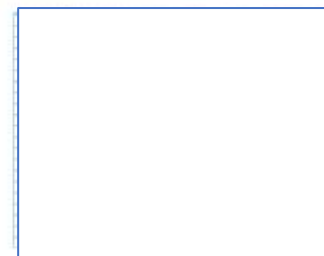
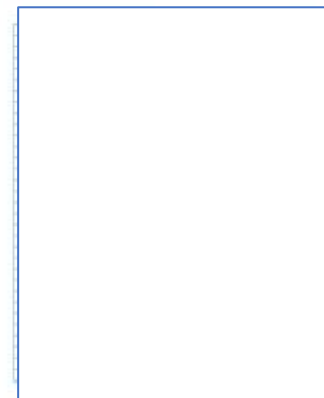
The resultant force is the sum of the forces acting so in this example, that is 200N.



Worked example 2:

A horse-drawn carriage is pulled by two horses at 400N each. One of the horses is pulling in a different direction to the other horse. Show the resultant force and direction of the horse-drawn carriage.

As before, you will need to draw construction lines from the end of each force arrow and parallel to the other one. The intercept represents the direction of the resultant force. The resultant force is the sum of the individual forces so in this example, it is 800N.



Key Vocabulary

1	Contact Forces	
2	Non-contact Forces	

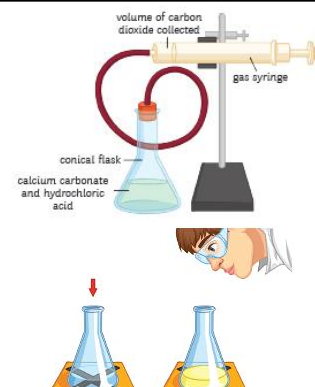
Equations

1	Rate of reaction = quantity of reactant used / time taken
2	Rate of reaction = quantity of product formed / time taken

Required Practical

From this practical you should be able to describe 2 ways in which the rate of reaction can be measured.

1. Measuring the production of gas
2. Measuring the changes in the colour



Factors affecting the rate of reaction

The rate of chemical change will be increased if there are more frequent successful collisions between reactant particles

1	Temperature	When the temperature of the reaction mixture is increased, the reactant particles gain kinetic energy and move much more quickly. This results in more frequent successful collisions increasing the rate of reaction.
2	Concentration and pressure	If the number of reactant particles in a given space is doubled, there will be more frequent successful collisions between reactant particles, therefore increasing the rate of reaction.
3	Surface area	Only reactant particles on the surface of a solid are able to collide and react. The greater the surface area the more reactant particles are exposed, leading to more frequent collisions.
4	Catalyst	When a catalyst is used in a chemical reaction the frequency of collisions is unchanged. More particles are able to react. The particles have energy greater than that of the activation energy. Consequently there is an increase in the rate of reaction.

Key Vocabulary

1	Reversible reaction	A reversible reaction is one in which the reactants form products. The products are then able to react together to reform the reactants. The symbol for a reversible reaction is \rightleftharpoons .
2	Catalyst	A substance that speeds up a chemical reaction without getting used up. A catalyst lowers the activation energy. Biological catalysts are called enzymes.
3	Dynamic equilibrium	A point where the forward and reverse reactions are occurring at the same rate.

Measuring a reaction mixture

1	Measuring the change in mass	The reaction mixture is placed on a mass balance. As the reaction proceeds and the gaseous product is given off the mass of the flask will decrease. The rate for the reaction is : Rate (g/s) = change in mass (g) / time taken.(s)
2	Measuring the volume of gas produced	The reaction mixture is connected to a gas syringe. As the reaction proceeds the gas is collected. The rate for the reaction is: Rate (cm ³ /s) = volume of gas produced (cm ³) / time taken (s).

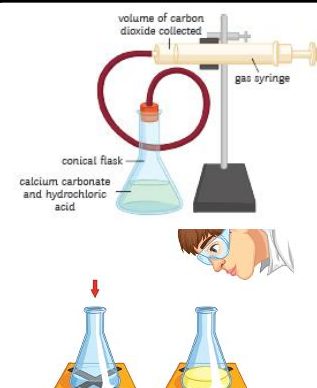
Equations

1	
2	

Required Practical

From this practical you should be able to describe 2 ways in which the rate of reaction can be measured.

1. Measuring the production of gas
2. Measuring the changes in the colour



Factors affecting the rate of reaction

The rate of chemical change will be increased if there are more frequent successful collisions between reactant particles

1	Temperature	
2	Concentration and pressure	
3	Surface area	
4	Catalyst	

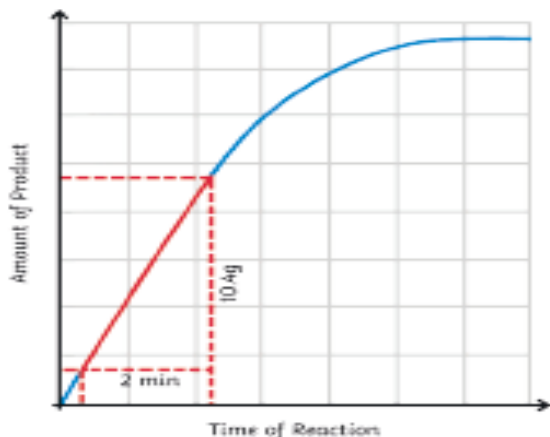
Key Vocabulary

1	Reversible reaction	
2	Catalyst	
3	Dynamic equilibrium	

Measuring a reaction mixture

1	Measuring the change in mass	
2	Measuring the volume of gas produced	

Calculating gradient (Higher Tier)



$$\text{Gradient} = y/x$$

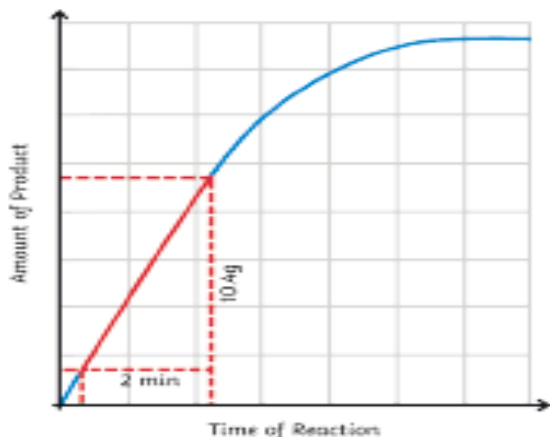
On the graph, draw construction lines on the part of the graph that has straight lines. Measure the values of x and y.

Changing conditions and the effect on the position of equilibrium (Higher Tier)

At equilibrium the amounts of reactants and products are the same. In order to change the amount of reactants and products at equilibrium the conditions of the reaction must be changed. This is known as Le Chatelier's Principle

Change	Effect	Explanation
Decrease concentration of product	Favours the forward reaction	Opposes the change by making less reactant and more product
Increase concentration of product	Favours the reverse reaction	Opposes the change by making more reactant and less product
Decrease concentration of reactant	Favours the reverse reaction	Opposes the change by making more reactant and less product
Increase concentration of reactant	Favours the forward reaction	Opposes the change by making less reactant and more product
Increasing temperature of surroundings	Favours the endothermic reaction	Opposes the change by decreasing the temperature of the surroundings
Decreasing the temperature of surroundings	Favours the exothermic reaction	Opposes the change by increasing the surroundings
Increase the pressure	Favours the reaction that results in fewer molecules	Decreasing the number of molecules within the vessel opposes the change because it decreases the pressure
Decrease the pressure	Favours the direction that results in more molecules	Increasing the number of molecules within the vessel opposes the change because it increases the pressure

Calculating gradient (Higher Tier)



$$\text{Gradient} = y/x$$

On the graph, draw construction lines on the part of the graph that has straight lines. Measure the values of x and y.

Changing conditions and the effect on the position of equilibrium (Higher Tier)

At equilibrium the amounts of reactants and products are the same. In order to change the amount of reactants and products at equilibrium the conditions of the reaction must be changed. This is known as Le Chatelier's Principle

Change	Effect	Explanation
Decrease concentration of product		
Increase concentration of product		
Decrease concentration of reactant		
Increase concentration of reactant		
Increasing temperature of surroundings		
Decreasing the temperature of surroundings		
Increase the pressure		
Decrease the pressure		

General reactions

1	Metal + oxygen	Metal oxide
2	Metal + water	Metal hydroxide + hydrogen
3	Metal + acid	Salt + hydrogen
4	Acid + base/alkali(metal Hydroxide)	Salt + water
5	Acid + metal carbonate	Salt + water + carbon dioxide

Reactivity series

Metal	Extraction method
Potassium	Electrolysis – electricity used to split the metal from its compound E.g. $2\text{MgO} \rightarrow 2\text{Mg} + \text{O}_2$
Sodium	
Lithium	
Calcium	
Magnesium	
Carbon	Non-metal
Zinc	Reduction with carbon: carbon removes the metal from the metal oxide E.g. $2\text{CuO} + \text{C} \rightarrow 2\text{Cu} + \text{CO}_2$
Iron	
Copper	
Gold	Does not form compounds, found in native state

Oxidation and reduction (HT only)

1	OILRIG	O xidation I s L oss, R eduction I s G ain (of electrons)
2	Oxidation	Happens when an atom loses electrons e.g. $\text{Mg} \rightarrow \text{Mg}^{2+} + 2\text{e}^-$
3	Reduction	Happens when an atom gains electrons e.g. $\text{Cu}^{2+} + 2\text{e}^- \rightarrow \text{Cu}$

Acids and their salts

Acid	Formula	Salt	Formula
Hydrochloric acid	HCl	Chloride	Cl^-
Nitric acid	HNO_3	Nitrate	NO_3^-
Sulfuric acid	H_2SO_4	Sulfate	SO_4^{2-}

Other useful ions

Hydroxide	OH^-
Hydrogen ion	H^+
Ammonium	NH_4^+
Carbonate	CO_3^{2-}

Required Practical
Making a soluble salt

1	Measure out a volume of dilute sulphuric acid using a measuring cylinder
2	Warm dilute acid in a beaker with a Bunsen burner
3	Add metal oxide one spatula at a time until it in excess (when you can see unreacted metal oxide)
4	Filter the mixture using a funnel and filter paper
5	Pour the filtrate into an evaporating basin
6	Warm on a water bath until crystals form

Key Vocabulary

1	Oxidation	Gain of oxygen or loss of electrons
2	Reduction	Loss of oxygen or gain of electrons
3	Displacement reaction	A reaction where a more reactive metal displaces a less reactive metal from a compound
4	Base	A metal oxide or hydroxide
5	Alkali	A soluble base

General reactions

1	Metal + oxygen	
2	Metal + water	
3	Metal + acid	
4	Acid + base/alkali(metal Hydroxide)	
5	Acid + metal carbonate	

Reactivity series

Metal	
Potassium	
Sodium	
Lithium	
Calcium	
Magnesium	
Carbon	
Zinc	
Iron	
Copper	
Gold	

Oxidation and reduction
(HT only)

1	OILRIG	
2	Oxidation	
3	Reduction	

Acids and their salts

Acid	Formula	Salt	Formula
Hydrochloric acid			
Nitric acid			
Sulfuric acid			

Other useful ions

Hydroxide	
Hydrogen ion	
Ammonium	
Carbonate	

Required Practical
Making a soluble salt

1	
2	
3	
4	
5	
6	

Key Vocabulary

1	Oxidation	
2	Reduction	
3	Displacement reaction	
4	Base	
5	Alkali	

pH

1	Acids	Contain aqueous H^+ ions; $\text{pH} < 7$
2	Alkalis	Contain aqueous OH^- ions; $\text{pH} > 7$
3	Neutral	A solution with a pH of 7, has equal concentration of H^+ and OH^- ions
4	Neutralisation	$\text{H}^+ (\text{aq}) + \text{OH}^- (\text{aq}) \rightarrow \text{H}_2\text{O} (\text{l})$
5	How to measure pH	Universal Indicator with colour chart or pH probe

Strong and weak acids (HT only)

1	Concentration	Measure of the amount of substance per litre (dm^3) of solution
2	Concentrated	Solution with a high amount of substance per dm^3
3	Dilute	Solution with a low amount of substance per dm^3
4	Strong acid	An acid that completely ionises in aqueous solution
5	Weak acid	An acid that only partially ionises in aqueous solution
6	pH scale	As the pH decreases by one unit, the H^+ concentration increases by a factor of 10.

Required practical – Titration (Chemistry only)

1	Fill burette with solution of known concentration
2	Measure out 25.0cm^3 of solution with unknown concentration with a pipette
3	Add unknown solution into a conical flask and place on a white tile
4	Add an indicator (usually phenolphthalein which is pink in alkali and colourless in acid/neutral)
5	Add known solution slowly to the unknown solution
6	Swirl regularly and add dropwise close to the endpoint

Electrolysis

	Formed at positive electrode	Formed at negative electrode
Molten compound	Non-metal	Metal
Aqueous compound	Halogen (if electrolyte contains halide) or oxygen (if electrolyte contains sulfate)	Hydrogen

Half-equations (HT only)

Formation of metal	e.g. $\text{Cu}^{2+} + 2\text{e}^- \rightarrow \text{Cu}$
Formation of halogen	e.g. $2\text{Cl}^- \rightarrow \text{Cl}_2 + 2\text{e}^-$
Formation of hydrogen	$2\text{H}^+ + 2\text{e}^- \rightarrow \text{H}_2$
Formation of oxygen	$4\text{OH}^- \rightarrow \text{O}_2 + 2\text{H}_2\text{O} + 4\text{e}^-$

Key Vocabulary

1	Electrolysis	Process where electric current is passed through an electrolyte to separate ions
2	Anode	Positive electrode
3	Cathode	Negative electrode
4	Anion	Negative ion (e.g. non-metal ions)
5	Cation	Positive ion (e.g. metal ions)
6	Electrolyte	Molten or aqueous ionic compound.
7	Cryolite	Substance added to aluminium oxide to lower melting point

pH

1	Acids	
2	Alkalis	
3	Neutral	
4	Neutralisation	
5	How to measure pH	

Strong and weak acids (HT only)

1	Concentration	
2	Concentrated	
3	Dilute	
4	Strong acid	
5	Weak acid	
6	pH scale	

Required practical – Titration
(Chemistry only)

1	
2	
3	
4	
5	
6	

Electrolysis

	Formed at positive electrode	Formed at negative electrode
Molten compound		
Aqueous compound		

Half-equations (HT only)

Formation of metal	
Formation of halogen	
Formation of hydrogen	
Formation of oxygen	

Key Vocabulary

1	Electrolysis	
2	Anode	
3	Cathode	
4	Anion	
5	Cation	
6	Electrolyte	
7	Cryolite	

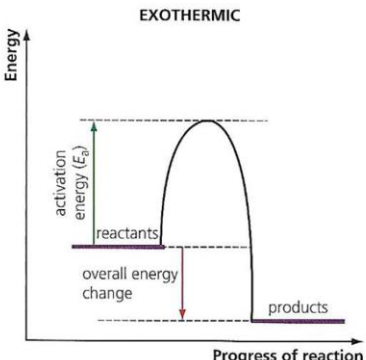
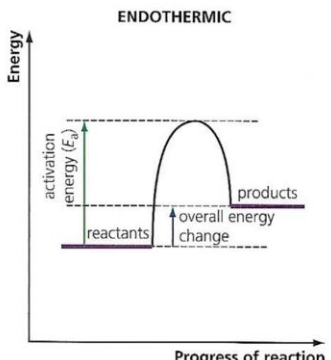
Exothermic and Endothermic

1	An exothermic reaction is one that transfers energy to the surroundings so the temperature of the surroundings increases.
2	An endothermic reaction is one that takes in energy from the surroundings so the temperature of the surroundings decreases
3	Everyday uses of exothermic reactions include self-heating cans and hand warmers.
4	Endothermic reactions include thermal decompositions and everyday uses include sports injury packs.

Energy changes (Higher Tier)

1	During a chemical reaction energy must be supplied to break bonds in the reactants and energy is released when bonds in the products are formed.
2	In an exothermic reaction, more energy is released making the bonds than is taken in to break the bonds and in an endothermic reaction, more energy is taken in to break the bonds than is released when new bonds are made.
3	Energy change = bond energy in reactants – bond energy in products

Reaction profiles

1	Reaction profiles can be used to show the relative energies of reactants and products, the activation energy and the overall energy change of a reaction
2	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>EXOTHERMIC</p>  </div> <div style="text-align: center;"> <p>ENDOTHERMIC</p>  </div> </div>

Chemistry Only - Chemical Cells

1	Cells contain chemicals which react to produce electricity. They are made of two different metals in contact with an electrolyte.
2	The potential difference of a cell is dependant on the metals. The bigger the difference in reactivity of the metals, the greater the potential difference.
3	In non-rechargeable cells the chemical reactions stop when one of the reactants is used up. In rechargeable cells and batteries, like the one used to power your mobile phone, the chemical reactions can be reversed when an external circuit is supplied.

Key Vocabulary

1	Exothermic	Energy is transferred to the surroundings
2	Endothermic	Energy is taken in from the surroundings
3	Activation energy	The minimum amount of energy that particles must have to react.

Chemistry Only - Fuel Cells

1	A fuel cell works by having a constant supply of a fuel and oxygen from the air. The fuel is oxidised electrochemically to produce a potential difference. Hydrogen fuel cells are an alternative to rechargeable cells and batteries.
2	A fuel cell has 2 electrodes, the anode (negative) and cathode (positive), and an electrolyte.
3	The overall reaction in a hydrogen-oxygen fuel cell is: hydrogen + oxygen → water $2\text{H}_2(\text{g}) + \text{O}_2(\text{g}) \rightarrow 2\text{H}_2\text{O}(\text{l})$
4	Half equations: Anode: $2\text{H}_2 \rightarrow 4\text{H}^+ + 4\text{e}^-$ Cathode: $\text{O}_2 + 4\text{H}^+ + 4\text{e}^- \rightarrow 2\text{H}_2\text{O}$

Required Practical – Measure the temperature change when different volumes of alkali are added to the acid in a neutralisation reaction.

Exothermic and Endothermic

1	An exothermic reaction is
2	An endothermic reaction is
3	Everyday uses of exothermic reactions include
4	Endothermic reactions include

Energy changes (Higher Tier)

1	During a chemical reaction energy must be supplied to
2	In an exothermic reaction, more energy is released than is taken in to and in an endothermic reaction, more energy is taken in to than is released when
3	Energy change = –

Reaction profiles

1	Reaction profiles can be used to show the relative energies of reactants and products, the activation energy and the overall energy change of a reaction
2	

Chemistry Only - Chemical Cells

1	Cells contain . They are made of .
2	The potential difference of a cell is dependant on . The bigger the difference in reactivity of the metals,
3	In non-rechargeable . In rechargeable cells and batteries, like the one used to power your mobile phone,

Key Vocabulary

1		Energy is transferred to the surroundings
2		Energy is taken in from the surroundings
3	Activation energy	

Chemistry Only - Fuel Cells

1	A fuel cell works by . Hydrogen fuel cells are an alternative to .
2	A fuel cell has 2 , the anode () and cathode (), and an electrolyte.
3	The overall reaction in a hydrogen-oxygen fuel cell is:
4	Half equations: Anode: Cathode:

Required Practical – Measure the temperature change when different volumes of alkali are added to the acid in a neutralisation reaction.

Equations in this topic

1	Mass, weight and gravity	Weight = mass x gravitational field Units: Weight in Newtons (N) Mass in kilograms (kg) Gravitational field in Newtons per kg (N/kg)
2	Work done	Work done = force x distance Units: Work done in Joules (J) Force in Newtons (N) Distance in metres (m)
3	Spring constant	Force = spring constant x extension Units: Force in Newtons (N) Spring constant in Newtons per metre (N/m) Extension in metres (m)
4	Moments (PHYSICS ONLY)	Moment = force x distance Units: Moment in Newton metres (Nm) Force in Newtons (N) Distance in metres (m)
5	Pressure (PHYSICS ONLY)	Pressure = force / area Units: Pressure in pascals (pa) Force in Newtons (N) Area in metres ² (m ²)

Resultant forces - examples

Two forces, 3 newtons (N) and 2 N, act to the right. Calculate the resultant force.

$$3\text{ N} + 2\text{ N} = 5\text{ N to the right}$$



Two forces acting in the same direction

A force of 5 N acts to the right, and a force of 3 N act to the left. Calculate the resultant force.

$$5\text{ N} - 3\text{ N} = 2\text{ N to the right}$$

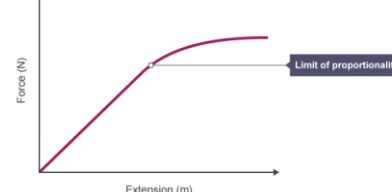


Two forces acting in opposite directions

Required practical – Hooke's law

Extension happens when an object increases in length. The extension of an elastic object, such as a spring, is described by Hooke's law:

$$\text{force} = \text{spring constant} \times \text{extension}$$



Key Vocabulary

1	Resultant Force	The resultant force is a single force that has the same effect as two or more forces acting together
2	Scalar	A quantity that has magnitude only
3	Vector	A quantity that has both magnitude and direction
4	Weight	A result of mass and the gravitational field you are in
5	Mass	The number of particles in an object. Stays the same wherever you are in the universe
6	Work done	Whenever a force is used to move an object through a distance work is done on that object.
7	Inelastic deformation	An object will not return to its original shape and size when the force is removed.
8	Elastic deformation	An object will not return to its original shape and size when the force is removed.
9	Spring constant	Spring constant is a measure of the stiffness of a spring up to its elastic limit.

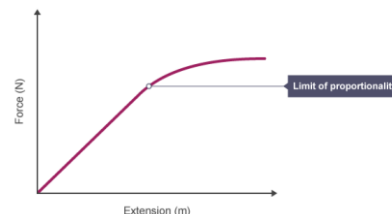
Equations in this topic

1	Mass, weight and gravity	Weight = Units: Weight in Mass in Gravitational field in
2	Work done	Work done = Units: Work done in Force in Distance in
3	Spring constant	Force = Units: Force in Spring constant in Extension in
4	Moments (PHYSICS ONLY)	Moment = Units: Moment in Force in Distance in
5	Pressure (PHYSICS ONLY)	Pressure = Units: Pressure in Force in Area in

Resultant forces - examples

Required practical – Hooke's law

Extension happens when
force =



Key Vocabulary

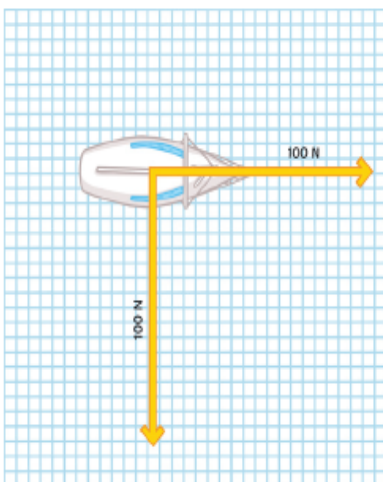
1	Resultant Force	
2	Scalar	
3	Vector	
4	Weight	
5	Mass	
6	Work done	
7	Inelastic deformation	
8	Elastic deformation	
9	Spring constant	

Resultant forces – Vector diagrams

A **scale vector diagram** can be used to calculate **resultant forces** that are not acting directly opposite of one another, on a straight line.

Worked example 1:

A boat is being pulled toward the harbour by two winch motors. Each motor is pulling with a force of 100N and they are working at right angles to one another.



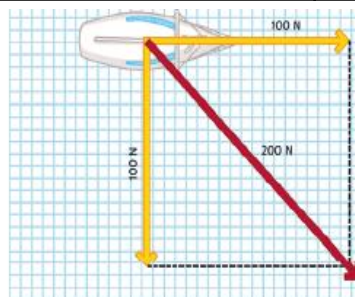
To find the resultant force, you would first draw construction lines from the end of each arrow parallel to the other force arrow.



Remember that the size of the arrow is representative of the size of the force being exerted.

Where the construction lines intercept indicates the direction of the resultant force: from the centre of mass through the intercept.

The resultant force is the sum of the forces acting so in this example, that is 200N.



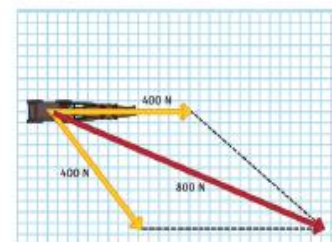
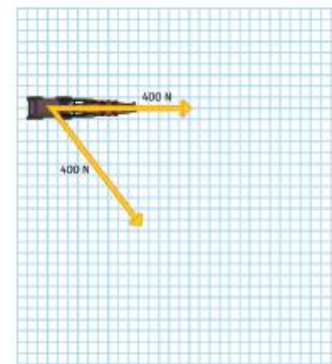
Key Vocabulary

1	Contact Forces	The objects are touching e.g. friction, air resistance, tension and contact force
2	Non-contact Forces	The objects are not touching e.g. gravitational, electrostatic and magnetic forces

Worked example 2:

A horse-drawn carriage is pulled by two horses at 400N each. One of the horses is pulling in a different direction to the other horse. Show the resultant force and direction of the horse-drawn carriage.

As before, you will need to draw construction lines from the end of each force arrow and parallel to the other one. The intercept represents the direction of the resultant force. The resultant force is the sum of the individual forces so in this example, it is 800N.



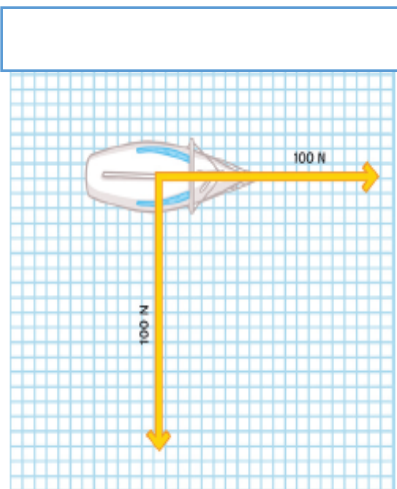
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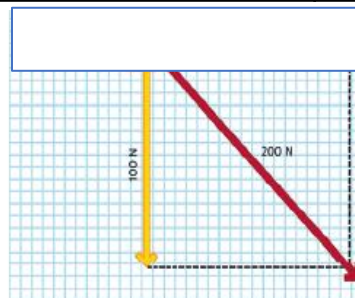
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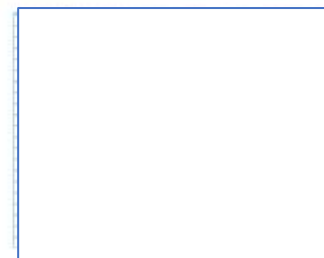
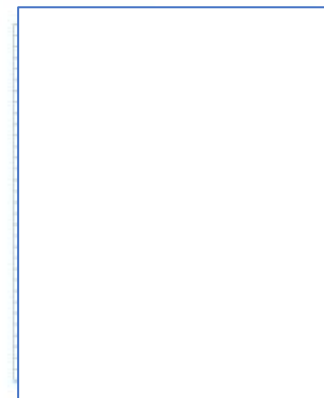
Key Vocabulary

1	Contact Forces	
2	Non-contact Forces	

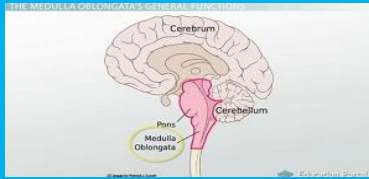
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The Brain



1	Cerebral Cortex	Responsible for intelligence, memory and our ability to use language .
2	Cerebellum	controls and coordinates the movement of your muscles
3	Medulla	Control involuntary functions such as breathing, heart rate and heart rate

The Eye –structure and function

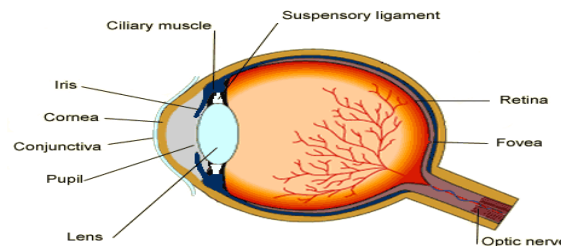
1	Retina	senses light using light receptors
2	Optic Nerve	transmits impulses to the brain
3	Sclera	
4	Cornea	protects eye surface and focuses light rays
5	Iris	regulates amount of light entering eye
6	Ciliary Muscles	change shape of the lens
7	Suspensory ligaments	hold lens in place
8	Lens	focuses light on retina

Control of Body Temperature

1	If the temperature is too high, blood vessels dilate(vasodilation) and sweat is produced by sweat glands
2	If body temperature is too low blood vessels constrict (vasoconstriction) , sweating stops and skeletal muscles contract (shiver)

Accommodation and ways to correct sight

To focus on near objects	The Ciliary muscles contract The suspensory ligaments loosen The lens is thicker and refracts light rays strongly	
To focus on far objects	The Ciliary muscles relax The suspensory ligaments are pulled tight The lens is then pulled thin and only refracts light rays	
Corrective treatment of eyesight	Use of spectacle lenses which refract light to focus on the retina Hard and soft contact lens Laser surgery Replacement lens in the eye	



Additional Information

Key Vocabulary

1	Accommodation	To focus on near and far objects
2	Vasodilation	Blood vessels dilate
3	Vasoconstriction	Blood vessels constrict
4	Myopia	Short sightedness rays focus before the retina
5	Hyperopia	Long sightedness rays focus behind the retina
6	Refracts	Bends light rays
7	ADH (released by the pituitary gland)	Anti diuretic hormone causes the reabsorption of water back into the bloodstream via the kidney tubules
8	Phototropism	Growth and response to light
9	Geotropism	Growth and response to gravity
10	Auxin	Plant hormones found in shoots and roots

Plant Hormones (HT)

1	Gibberellins	Initiate seed germination. Promote flowering Increase fruit size
2	Ethene	Control cell division and ripening of fruits during storage and transport
3	Auxins	Used as weed killer As rooting powders To promote growth in tissue culture

The Brain



1	Cerebral Cortex	
2	Cerebellum	
3	Medulla	

The Eye –structure and function

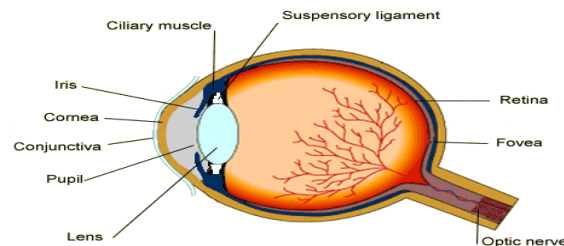
1	Retina	
2	Optic Nerve	
3	Sclera	
4	Cornea	
5	Iris	
6	Ciliary Muscles	
7	Suspensory ligaments	
8	Lens	

Control of Body Temperature

1	
2	

Accommodation and ways to correct sight

To focus on near objects		
To focus on far objects		
Corrective treatment of eyesight		



Additional Information

Key Vocabulary

1	Accommodation	
2	Vasodilation	
3	Vasoconstriction	
4	Myopia	
5	Hyperopia	
6	Refracts	
7	ADH (released by the pituitary gland)	
8	Phototropism	
9	Geotropism	
10	Auxin	

Plant Hormones (HT)

1	Gibberellins	
2	Ethene	
3	Auxins	

Order of cells in a reflex action

1	Stimulus	A change in the environment. E.g heat
2	Receptor	Detects the stimulus
3	Sensory Neurone	Carries the impulse from receptor to the CNS
4	Relay neurone	Located in the CNS
5	Motor Neurone	Carries the impulse from the CNS to the effector
6	Effector	Eg, muscle or gland
7	Response	Eg muscle in arm contracts and you pull your arm away

Glands and the hormones they release and role

1	Pituitary gland: LH, FSH	Important in the menstrual cycle
2	Pancreas :Insulin and Glucagon-	controls blood sugar levels
3	Thyroid :Thyroxine	-Stimulates the Metabolic rate, important in growth and development
4	Adrenal Glands: Adrenaline	Released during fear and stress causes an increase in heart rate release more glucose and oxygen
5	Ovary: Oestrogen, Progesterone	Inhibits FSH and stimulates LH Maintains the lining of the womb
6	Testes	Testosterone

Control of blood sugar level by pancreas

1	If blood Glucose level is too high the pancreas produces insulin that causes glucose o move from the blood into the cells . In the liver and muscle cells the excess glucose is converted to glycogen for storage
2	HT If the blood glucose is too low the pancreas produces the hormone glucagon that causes the glycogen to be converted into glucose and released into the blood and how glucagon and insulin interact in a negative feedback cycle

Comparing type 1 and 2 Diabetes

	Type 1	Type 2
Cause	The pancreas fails to produce any or very little levels of insulin	The body cells no longer respond to the insulin produced by the pancreas
Treatment	It is treated with insulin injections or a fitted insulin pumps	A carbohydrate controlled diet and exercise

Key Vocabulary

1	Homeostasis	Regulation of the internal conditions in the body
2	Hormone	A chemical messenger released from a gland into the bloodstream
3	Reflex	An automatic rapid response to a stimulus
4	Stimulus	A change in the environment that stimulates a sense organ
5	Receptor	Cells which detect a stimulus
6	Neurone	A nerve cell
7	Pancreas	A gland that controls blood glucose levels releasing insulin and Glucagon
8	Liver	An organ that stores glucose as Glycogen
9	Glucose	A soluble sugar
10	Glycogen	An insoluble sugar stored in the liver
11	Insulin	A hormone released by the pancreas
12	Diabetes	A condition whereby your pancreas produces very little or no insulin

Additional Information (HT highlighted in red)

Order of cells in a reflex action		
1	Stimulus	
2	Receptor	
3	Sensory Neurone	
4	Relay neurone	
5	Motor Neurone	
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7	Response	

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6	Testes	

Control of blood sugar level by pancreas	
1	
2	

Comparing type 1 and 2 Diabetes		
	Type 1	Type 2
Cause		
Treatment		

Key Vocabulary		
1	Homeostasis	
2	Hormone	
3	Reflex	
4	Stimulus	
5	Receptor	
6	Neurone	
7	Pancreas	
8	Liver	
9	Glucose	
10	Glycogen	
11	Insulin	
12	Diabetes	

Additional Information (HT highlighted in red)

Hormones in the Reproductive cycle and their role

1	Oestrogen	Produced in the Ovary and causes the release of an egg
2	Testosterone	Produced in the testes and stimulates sperm production
3	Follicle Stimulating Hormone (FSH)	Causes the egg to mature in the ovary
4	Luteinising Hormone (LH)	Causes the release of an egg
5	Oestrogen	Maintains the lining of the womb
6	Progesterone	Maintains the lining of the womb

Control of the menstrual cycle and the use of hormones

1	FSH	Stimulates the eggs to mature Stimulates oestrogen production
2	LH	Cause the gg to be released from the ovary
3	Oestrogen	Inhibits FSH and stimulates LH
4	Progesterone	Maintains the lining of the womb if an egg is fertilised

Different types of contraception

Hormonal Non Hormonal Both	How they work
Oral contraceptives (the pill)	Contain hormones to inhibit FSH production so no more eggs mature
Injection, skin patches Implants	Release progesterone into the blood to inhibit the maturation and release of eggs for months or years
Barrier method Condom (male) Diaphragm (female)	Prevents the egg and sperm from meeting each other
Intrauterine devices Eg Coil	Prevent the implantation of an embryo or release a hormone
Spermicidal Agents	Kill or disable sperm
Surgical Methods Sterilisation	In females the oviduct are tied to prevent the egg reaching the uterus In males the sperm ducts are cut to prevent the sperm being released
Abstain from sexual intercourse (don't do it)	Not having sexual intercourse when an egg may be in the oviduct

Key Vocabulary

1	Ovulation	Release of a mature egg from the ovary
2	Hormone	A chemical messenger released from a gland into the bloodstream
3	Implantation	When a fertilised egg attaches to the lining of the womb
4	Embryo	A fertilised egg that has divided into a ball of cells
5	IVF	In Vitro fertilisation
6	Zygote	A fertilised egg

Stages in IVF

1	Mother is given FSH and LH to stimulate the maturation of several eggs	
2	The eggs are collected from the mother and fertilised by the father in the laboratory	
3	The fertilised eggs develop into embryos	
4	At the stage when they are tiny balls of cells one or two embryos are inserted into the mothers uterus or womb	
	Disadvantage : very emotional, stressful, success rate is not high, lead to multiple births with high risk to mother and baby	

Hormones in the Reproductive cycle and their role

1	Oestrogen	
2	Testosterone	
3	Follicle Stimulating Hormone (FSH)	
4	Luteinising Hormone (LH)	
5	Oestrogen	
6	Progesterone	

Control of the menstrual cycle and the use of hormones

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2	LH	
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Different types of contraception

Hormonal Non Hormonal Both	
Oral contraceptives (the pill)	
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Abstain from sexual intercourse (don't do it)	

Key Vocabulary

1	Ovulation	
2	Hormone	
3	Implantation	
4	Embryo	
5	IVF	
6	Zygote	

Stages in IVF

1		
2		
3		
4		

Present Tense		
1	Je suis	I am
2	J'ai	I have
3	Je fais	I do/make
4	Je vais	I go
5	J'aime	I like
6	Je déteste	I hate
7	Je joue	I play
8	Je mange	I eat
9	Je bois	I drink
10	Je lis	I read
11	J'achète	I buy
12	Je trouve	I find
13	Je travaille	I work
14	Je pense	I think
15	c'est	it's

Perfect Tense		
1	Je suis allé(e)	I went
2	Je suis parti(e)	I left
3	J'ai fait	I did/made
4	J'ai aimé	I liked
5	J'ai détesté	I hated
6	J'ai joué	I played
7	J'ai mangé	I ate
8	J'ai acheté	I bought
9	J'ai trouvé	I found
10	J'ai travaillé	I worked
11	J'ai regardé	I watched
12	J'ai vu	I saw
13	J'ai bu	I drank
14	J'ai lu	I read

Near Future Tense – I am going to...		
1	Je vais être	be
2	Je vais avoir	have
3	Je vais aller	go
4	Je vais faire	do
5	Je vais jouer	play
6	Je vais regarder	watch
7	Je vais manger	eat
8	Je vais acheter	buy
9	Je vais travailler	work
10	Je vais voir	see
11	Je vais boire	drink
12	Je vais devenir	become
13	Je vais voyager	travel
14	ce sera	it will be

Conditional Tense – I would like to...		
1	Je voudrais être	be
2	Je voudrais avoir	have
3	Je voudrais aller	go
4	Je voudrais faire	do
5	Je voudrais jouer	play
6	Je voudrais regarder	watch
7	Je voudrais manger	eat
8	Je voudrais acheter	buy
9	Je voudrais travailler	work
10	Je voudrais voir	see
11	Je voudrais boire	drink
12	Je voudrais devenir	become
13	Je voudrais voyager	travel
14	ce serait	it would be

Il y a		
1	Il y a	There is/are
2	Il y avait	There was/were
3	Il y aura	There will be
4	Il y aurait	There would be

Structures with infinitives		
1	J'aime aller/faire	I like going/doing
2	Je n'aime pas aller/faire	I don't like going/doing
3	il faut aller/jouer	you have to go/play
4	on peut/doit aller	you can/must go

Imperfect Tense		
1	J'étais	I was/I used to be
2	J'avais	I had/I used to have
3	C'était	It was
4	il y avait	there was/were

Sentence Starters

1	je pense que	I think that
2	je crois que	I believe that
3	à mon avis	in my opinion
4	selon moi	in my opinion
5	je dirais que	I would say that

Connectives

1	et	and
2	ou	or
3	où	why
4	parce que	because
5	car	as
6	mais	but
7	pourtant	however
8	aussi	also

Intensifiers

1	un peu	a bit
2	assez	quite
3	très	very
4	vraiment	really
5	beaucoup	much/ a lot
6	trop	too

Adjectives

1	amusant	fun
2	intéressant	interesting
3	passionnant	exciting
4	utile	useful
5	beau	beautiful
6	fantastique	fantastic
7	incroyable	incredible
8	ennuyeux/ barbant	boring
9	fatigant	tiring
10	difficile	difficult
11	cher	expensive

Signposting Time Frames

1	l'année dernière	last year
2	la semaine dernière	last week
3	hier	yesterday
4	normalement	normally
5	d'habitude	usually
6	ce soir	this evening
7	la semaine prochaine	next week
8	l'année prochaine	next year
9	dans l'avenir	in the future

Frequency

1	tous les jours	every day
2	de temps en temps	from time to time
3	une fois par semaine	once a week
4	deux fois par mois	twice a month
5	ne...jamais	never
6	toujours	always
7	souvent	often
8	quelquefois	sometimes

Exclamations!!!

1	Quel dommage!	What a shame!
2	Quel plaisir!	What a pleasure!

Perfect Phrases For Any Essay

1	Hier je suis allé au cinema/au stade/au restaurant/au parc/au café/à la piscine et c'était...	Yesterday I went to the cinema/stadium/restaurant/park/café/swimming pool and it was...
2	J'ai mangé une pizza/des frites/un hamburger/du jambon/du poisson/une glace et c'était...	I ate a pizza/fries/a hamburger/some ham/fish/an ice-cream and it was...
3	J'ai joué au foot/au tennis/au rugby/au golf et c'était...	I played football/tennis/rugby/golf and it was...
4	J'ai bu un coca/un jus d'orange et c'était...	I drank a coke/an orange juice and it was...

Fancy Phrases

1	je l'ai trouvé génial	I found it great
2	je me suis bien amusé(e)	I really enjoyed myself
3	j'ai tellement hâte	I'm really looking forward to it

Sentence Starters

1	je pense que	
2	je crois que	
3	à mon avis	
4	selon moi	
5	je dirais que	

Connectives

1	et	
2	ou	
3	où	
4	parce que	
5	car	
6	mais	
7	pourtant	
8	aussi	

Intensifiers

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6	fantastique	
7	incroyable	
8	ennuyeux/ barbant	
9	fatigant	
10	difficile	
11	cher	

Signposting Time Frames

1	l'année dernière	
2	la semaine dernière	
3	hier	
4	normalement	
5	d'habitude	
6	ce soir	
7	la semaine prochaine	
8	l'année prochaine	
9	dans l'avenir	

Frequency

1	tous les jours	
2	de temps en temps	
3	une fois par semaine	
4	deux fois par mois	
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Present Tense		
1	Je suis	
2	J'ai	
3	Je fais	
4	Je vais	
5	J'aime	
6	Je déteste	
7	Je joue	
8	Je mange	
9	Je bois	
10	Je lis	
11	J'achète	
12	Je trouve	
13	Je travaille	
14	Je pense	
15	c'est	

Perfect Tense		
1	Je suis allé(e)	
2	Je suis parti(e)	
3	J'ai fait	
4	J'ai aimé	
5	J'ai détesté	
6	J'ai joué	
7	J'ai mangé	
8	J'ai acheté	
9	J'ai trouvé	
10	J'ai travaillé	
11	J'ai regardé	
12	J'ai vu	
13	J'ai bu	
14	J'ai lu	

Near Future Tense – I am going to...		
1	Je vais être	
2	Je vais avoir	
3	Je vais aller	
4	Je vais faire	
5	Je vais jouer	
6	Je vais regarder	
7	Je vais manger	
8	Je vais acheter	
9	Je vais travailler	
10	Je vais voir	
11	Je vais boire	
12	Je vais devenir	
13	Je vais voyager	
14	ce sera	

Conditional Tense – I would like to...		
1	Je voudrais être	
2	Je voudrais avoir	
3	Je voudrais aller	
4	Je voudrais faire	
5	Je voudrais jouer	
6	Je voudrais regarder	
7	Je voudrais manger	
8	Je voudrais acheter	
9	Je voudrais travailler	
10	Je voudrais voir	
11	Je voudrais boire	
12	Je voudrais devenir	
13	Je voudrais voyager	
14	ce serait	

Il y a		
1	Il y a	
2	Il y avait	
3	Il y aura	
4	Il y aurait	

Structures with infinitives		
1	J'aime aller/faire	
2	Je n'aime pas aller/faire	
3	il faut aller/jouer	
4	on peut/doit aller	

Imperfect Tense		
1	J'étais	
2	J'avais	
3	C'était	
4	il y avait	

Present Tense		
1	Je suis	I am
2	J'ai	I have
3	Je fais	I do/make
4	Je vais	I go
5	J'aime	I like
6	Je déteste	I hate
7	Je joue	I play
8	Je mange	I eat
9	Je bois	I drink
10	Je lis	I read
11	Je vois	I see
12	J'achète	I buy
13	Je trouve	I find
14	Je travaille	I work
15	Je pense	I think
16	Je crois	I believe
17	Je dois	I have to
18	Je peux	I can
19	Je veux	I want to
20	c'est	it's

Perfect Tense		
1	Je suis allé(e)	I went
2	Je suis parti(e)	I left
3	J'ai fait	I did/made
4	J'ai aimé	I liked
5	J'ai détesté	I hated
6	J'ai joué	I played
7	J'ai mangé	I ate
8	J'ai acheté	I bought
9	J'ai trouvé	I found
10	J'ai travaillé	I worked
11	J'ai regardé	I watched
12	J'ai vu	I saw
13	J'ai bu	I drank
14	J'ai lu	I read

Il y a		
1	Il y a	There is/are
2	Il y avait	There was/were
3	Il y aura	There will be
4	Il y aurait	There would be

Imperfect Tense - I used to		
1	J'étais	... be
2	J'allais	... go
3	J'avais	... have
4	Je faisais	... do
5	Je jouais	... play
6	Je regardais	... watch
7	J'écoutais	... listen
8	Je mangeais	... eat
9	Je buvais	... drink
10	J'achetais	... buy
11	J'aimais	... like
12	C'était	It was

Future Tense		
1	Je serai	I will be
2	J'aurai	I will have
3	J'irai	I will go
4	Je ferai	I will do
5	Je jouerai	I will play
6	Je regarderai	I will watch
7	Je mangerai	I will eat
8	J'achèterai	I will buy
9	Je travaillerai	I will work
10	Je verrai	I will see
11	Je boirai	I will drink
12	Il sera	It will be

Structures with infinitives		
1	J'aime aller/faire	I like going/doing
2	Je n'aime pas aller/faire	I don't like going/doing
3	Je vais aller/jouer	I am going to go/to play
4	Je voudrais aller/jouer	I would like to go/play
5	il faut aller/jouer	you have to go/play
6	on peut/doit aller	you can/must go

Present Tense		
1	Je suis	
2	J'ai	
3	Je fais	
4	Je vais	
5	J'aime	
6	Je déteste	
7	Je joue	
8	Je mange	
9	Je bois	
10	Je lis	
11	Je vois	
12	J'achète	
13	Je trouve	
14	Je travaille	
15	Je pense	
16	Je crois	
17	Je dois	
18	Je peux	
19	Je veux	
20	c'est	

Perfect Tense		
1	Je suis allé(e)	
2	Je suis parti(e)	
3	J'ai fait	
4	J'ai aimé	
5	J'ai détesté	
6	J'ai joué	
7	J'ai mangé	
8	J'ai acheté	
9	J'ai trouvé	
10	J'ai travaillé	
11	J'ai regardé	
12	J'ai vu	
13	J'ai bu	
14	J'ai lu	

Il y a		
1	Il y a	
2	Il y avait	
3	Il y aura	
4	Il y aurait	

Imperfect Tense - I used to		
1	J'étais	
2	J'allais	
3	J'avais	
4	Je faisais	
5	Je jouais	
6	Je regardais	
7	J'écoutais	
8	Je mangeais	
9	Je buvais	
10	J'achetais	
11	J'aimais	
12	C'était	

Future Tense		
1	Je serai	
2	J'aurai	
3	J'irai	
4	Je ferai	
5	Je jouerai	
6	Je regarderai	
7	Je mangerai	
8	J'achèterai	
9	Je travaillerai	
10	Je verrai	
11	Je boirai	
12	Il sera	

Structures with infinitives		
1	J'aime aller/faire	
2	Je n'aime pas aller/faire	
3	Je vais aller/jouer	
4	Je voudrais aller/jouer	
5	il faut aller/jouer	
6	on peut/doit aller	

Sentence Starters

1	je pense que	I think that
2	je crois que	I believe that
3	à mon avis	in my opinion
4	selon moi	in my opinion
5	je dirais que	I would say that
6	il me semble que	it seems to me that
7	d'un point de vue personnel	from a personal point of view
8	bien que je sache que	although I know that
9	à cause du fait que	due to the fact that
10	Je considèrerais que	I would consider that
11	il faut que je dise que	I have to say that

Connectives

1	parce que	because
2	car	as
3	mais	but
4	pourtant	however
5	en revanche	however
6	néanmoins	nevertheless
7	certes	admittedly
8	aussi	also
9	donc	therefore
10	d'ailleurs	besides
11	bien que (+subj)	although
12	à moins que (+subj)	unless

Intensifiers

1	un peu	a bit
2	assez	quite
3	très	very
4	vraiment	really
5	beaucoup	much/ a lot
6	trop	too
7	tellement	so
8	extrêmement	extremely

Adjectives

1	amusant	fun
2	intéressant	interesting
3	passionnant	exciting
4	utile	useful
5	beau	beautiful
6	fantastique	fantastic
7	incroyable	incredible
8	ennuyeux/ barbant	boring
9	fatigant	tiring
10	difficile	difficult
11	cher	expensive

Exclamations!!!

1	Quel dommage!	What a shame!
2	Quel plaisir!	What a pleasure!

Signposting Time Frames

1	l'année dernière	last year
2	la semaine dernière	last week
3	hier	yesterday
4	normalement	normally
5	d'habitude	usually
6	ce soir	this evening
7	la semaine prochaine	next week
8	l'année prochaine	next year
9	dans l'avenir	in the future

Frequency

1	tous les jours	every day
2	de temps en temps	from time to time
3	une fois par semaine	once a week
4	deux fois par mois	twice a month
5	ne...jamais	never
6	toujours	always
7	souvent	often
8	quelquefois/ parfois	sometimes

Fancy Phrases

1	après avoir mangé	after having eaten
2	je l'ai trouvé génial	I found it great
3	je me suis bien amusé(e)	I really enjoyed myself
4	ça m'a vraiment plu	I really enjoyed it
5	ça en valait la peine	It was worth it
6	je n'aurais jamais pensé	I would never have thought
7	j'ai tellement hâte	I'm really looking forward to it
8	le jeu en vaudra la chandelle	it will be worth it

Sentence Starters

1	je pense que	
2	je crois que	
3	à mon avis	
4	selon moi	
5	je dirais que	
6	il me semble que	
7	d'un point de vue personnel	
8	bien que je sache que	
9	à cause du fait que	
10	Je considèrerais que	
11	il faut que je dise que	

Connectives

1	parce que	
2	car	
3	mais	
4	pourtant	
5	en revanche	
6	néanmoins	
7	certes	
8	aussi	
9	donc	
10	d'ailleurs	
11	bien que (+subj)	
12	à moins que (+subj)	

Intensifiers

1	un peu	
2	assez	
3	très	
4	vraiment	
5	beaucoup	
6	trop	
7	tellement	
8	extrêmement	

Exclamations!!!

1	Quel dommage!	
2	Quel plaisir!	

Adjectives

1	amusant	
2	intéressant	
3	passionnant	
4	utile	
5	beau	
6	fantastique	
7	incroyable	
8	ennuyeux/ barbant	
9	fatigant	
10	difficile	
11	cher	

Signposting Time Frames

1	l'année dernière	
2	la semaine dernière	
3	hier	
4	normalement	
5	d'habitude	
6	ce soir	
7	la semaine prochaine	
8	l'année prochaine	
9	dans l'avenir	

Frequency

1	tous les jours	
2	de temps en temps	
3	une fois par semaine	
4	deux fois par mois	
5	ne...jamais	
6	toujours	
7	souvent	
8	quelquefois/ parfois	

Fancy Phrases

1	après avoir mangé	
2	je l'ai trouvé génial	
3	je me suis bien amusé(e)	
4	ça m'a vraiment plu	
5	ça en valait la peine	
6	je n'aurais jamais pensé	
7	j'ai tellement hâte	
8	le jeu en vaudra la chandelle	

Present Tense		
1	Ich bin	I am
2	Ich habe	I have
3	Ich mache	I do/make
4	Ich gehe	I go
5	Ich fahre	I travel
6	Ich mag	I like
7	Ich hasse	I hate
8	Ich spiele	I play
9	Ich esse	I eat
10	Ich trinke	I drink
11	Ich lese	I read
12	Ich sehe	I see
13	Ich kaufe	I buy
14	Ich finde	I find
15	Ich arbeite	I work
16	Ich denke	I think
17	Ich muss	I have to
18	Ich kann	I can
19	Ich will	I want to
20	es ist	it's

Perfect Tense		
1	Ich bin gegangen	I went
2	Ich bin gefahren	I travelled
3	Ich bin geflogen	I flew
4	Ich bin geblieben	I stayed
5	Ich habe gemacht	I did/made
6	Ich habe gespielt	I played
7	Ich habe gegessen	I ate
8	Ich habe getrunken	I drank
9	Ich habe gekauft	I bought
10	Ich habe gearbeitet	I worked
11	Ich habe gesehen	I watched
12	Ich habe gelesen	I read
13	Ich habe gefunden	I found
14	ich habe besucht	I visited

Using Geben		
1	es gibt	There is/are
2	es gab	There was/were
3	es wird...geben	There will be
4	es würde...geben	There would be

Simple Past		
1	ich war	I was
2	es war	it was
3	sie waren	they were
4	ich hatte	I had
5	es gab	there was/were

Conditional Fancy		
1	ich wäre	I would be
2	es wäre	it would be
3	sie wären	they would be
4	ich hätte	I would have
5	es gäbe	there would be

Future/Conditional Tense		
ich werde/möchte....(I will/would like to)		
1	...sein	be
2	...werden	become
3	...gehen	go
4	...fahren	travel
5	...spielen	play
6	...essen	eat
7	...trinken	drink
8	...sehen	see
9	...arbeiten	work
10	...lesen	read
11	...machen	make/do
12	...besuchen	visit

Structures With Infinitives		
1	ich muss...machen	I have to do
2	ich darf...machen	I am allowed to do
3	ich kann...machen	I can do
4	ich soll...machen	I should do
5	ich will...machen	I want to do
6	man muss/kann/soll...machen	you must/can/should do

Present Tense		
1	Ich bin	
2	Ich habe	
3	Ich mache	
4	Ich gehe	
5	Ich fahre	
6	Ich mag	
7	Ich hasse	
8	Ich spiele	
9	Ich esse	
10	Ich trinke	
11	Ich lese	
12	Ich sehe	
13	Ich kaufe	
14	Ich finde	
15	Ich arbeite	
16	Ich denke	
17	Ich muss	
18	Ich kann	
19	Ich will	
20	es ist	

Perfect Tense		
1	Ich bin gegangen	
2	Ich bin gefahren	
3	Ich bin geflogen	
4	Ich bin geblieben	
5	Ich habe gemacht	
6	Ich habe gespielt	
7	Ich habe gegessen	
8	Ich habe getrunken	
9	Ich habe gekauft	
10	Ich habe gearbeitet	
11	Ich habe gesehen	
12	Ich habe gelesen	
13	Ich habe gefunden	
14	ich habe besucht	

Using Geben		
1	es gibt	
2	es gab	
3	es wird...geben	
4	es würde...geben	

Simple Past		
1	ich war	
2	es war	
3	sie waren	
4	ich hatte	
5	es gab	

Conditional Fancy		
1	ich wäre	
2	es wäre	
3	sie wären	
4	ich hätte	
5	es gäbe	

Structures With Infinitives		
1	ich muss...machen	
2	ich darf...machen	
3	ich kann...machen	
4	ich soll...machen	
5	ich will...machen	
6	man muss/kann/soll...machen	

Future/Conditional Tense		
ich werde/möchte....(I will/would like to)		
1	...sein	
2	...werden	
3	...gehen	
4	...fahren	
5	...spielen	
6	...essen	
7	...trinken	
8	...sehen	
9	...arbeiten	
10	...lesen	
11	...machen	
12	...besuchen	

Sentence Starters

1	meiner Meinung nach	in my opinion
2	meines erachtens	in my opinion
3	im Großen und Ganzen	all in all
4	ich denke, dass...	I think that
5	ich würde sagen, dass	I would say that
6	ich muss sagen, dass	I have to say that

Connectives

1	und	and
2	aber	but
3	denn	because
4	oder	or
5	jedoch	however
6	außerdem	furthermore
7	weil/da	because
8	dass	that

Intensifiers

1	ein bisschen	a bit
2	ziemlich	quite
3	sehr	very
4	wirklich	really
5	echt	genuinely
6	zu	too
7	so	so
8	ganz	totally

Adjectives

1	lustig	funny
2	interessant	interesting
3	spannend	exciting
4	nützlich	useful
5	schön	beautiful
6	toll	great
7	unglaublich	incredible
8	langweilig	boring
9	anstrengend	tiring
10	schwierig	difficult
11	teuer	expensive
12	billig	cheap

Signposting Time Frames

1	letztes Jahr	last year
2	letzte Woche	last week
3	gestern	yesterday
4	normalerweise	normally
5	gewöhnlich	usually
6	dieses Abend	this evening
7	nächste Woche	next week
8	nächstes Jahr	next year
9	in der Zukunft	in the future
10	am Wochenende	at the weekend

Frequency

1	jeden Tag	every day
2	ab und zu	from time to time
3	einmal pro Woche	once a week
4	zweimal pro Woche	twice a month
5	nie	never
6	immer	always
7	oft	often
8	manchmal	sometimes

Exclamations!!!

1	Wie Schade!	What a shame!
2	Wahnsinn!	Wow!

Fancy Phrases

1	es hat eine Menge Spaß gemacht	it was loads of fun
2	es hat sich wirklich gelohnt	it was really worth it
3	das hat mir gefallen	I liked it
4	ich freue mich schon darauf	I am already looking forward to it
5	ich werde mich amüsieren	I will enjoy myself

Perfect Past Examples

1	Letztes Wochenende bin ich ins Kino/Café/Restaurant/Stadion/Museum gegangen und es hat eine Menge Spaß gemacht.	Last weekend I went to the cinema/café/restaurant/stadium/museum and it was loads of fun.
2	Ich habe Hähnchen, Pommes und Salat gegessen und ich habe Cola getrunken. Das Essen war sehr lecker und es hat sich wirklich gelohnt. Wahnsinn!	I ate chicken, chips and salad and I drank cola. The food was very tasty and it was really worth it. Wow!

Fantastic Future Examples

1	Nächstes Jahr werde ich mit meinen Freunden nach Berlin fahren und ich freue mich schon darauf.	Next year I will travel with my friends to Berlin. I am already looking forward to it.
2	Ich möchte ins Café gehen und ich möchte Pizza essen. Ich werde mich amüsieren, weil ich Pizza liebe.	I would like to go to café and I would like to eat pizza. I will enjoy myself I love pizza.

Sentence Starters

1	meiner Meinung nach	
2	meines erachtens	
3	im Großen und Ganzen	
4	ich denke, dass...	
5	ich würde sagen, dass	
6	ich muss sagen, dass	

Connectives

1	und	
2	aber	
3	denn	
4	oder	
5	jedoch	
6	außerdem	
7	weil/da	
8	dass	

Intensifiers

1	ein bisschen	
2	ziemlich	
3	sehr	
4	wirklich	
5	echt	
6	zu	
7	so	
8	ganz	

Adjectives

1	lustig	
2	interessant	
3	spannend	
4	nützlich	
5	schön	
6	toll	
7	unglaublich	
8	langweilig	
9	anstrengend	
10	schwierig	
11	teuer	
12	billig	

Signposting Time Frames

1	letztes Jahr	
2	letzte Woche	
3	gestern	
4	normalerweise	
5	gewöhnlich	
6	dieses Abend	
7	nächste Woche	
8	nächstes Jahr	
9	in der Zukunft	
10	am Wochenende	

Frequency

1	jeden Tag	
2	ab und zu	
3	einmal pro Woche	
4	zweimal pro Woche	
5	nie	
6	immer	
7	oft	
8	manchmal	

Exclamations!!!

1	Wie Schade!	
2	Wahnsinn!	

Fancy Phrases

1	es hat eine Menge Spaß gemacht	
2	es hat sich wirklich gelohnt	
3	das hat mir gefallen	
4	ich freue mich schon darauf	
5	ich werde mich amüsieren	

Perfect Past Examples

1	Letztes Wochenende bin ich ins Kino/Café/Restaurant/Stadion/Museum gegangen und es hat eine Menge Spaß gemacht.	
2	Ich habe Hähnchen, Pommes und Salat gegessen und ich habe Cola getrunken. Das Essen war sehr lecker und es hat sich wirklich gelohnt. Wahnsinn!	

Future Tense Examples

1	Nächstes Jahr werde ich mit meinen Freunden nach Berlin fahren und ich freue mich schon darauf.	
2	Ich möchte ins Café gehen und ich möchte Pizza essen. Ich werde mich amüsieren, weil ich Pizza liebe.	

Present Tense		
1	Ich bin	I am
2	Ich habe	I have
3	Ich mache	I do/make
4	Ich gehe	I go
5	Ich fahre	I travel
6	Ich mag	I like
7	Ich hasse	I hate
8	Ich spiele	I play
9	Ich esse	I eat
10	Ich trinke	I drink
11	Ich lese	I read
12	Ich sehe	I see
13	Ich kaufe	I buy
14	Ich finde	I find
15	Ich arbeite	I work
16	Ich denke	I think
17	Ich muss	I have to
18	Ich kann	I can
19	Ich will	I want to
20	es ist	it's

Perfect Tense		
1	Ich bin gegangen	I went
2	Ich bin gefahren	I travelled
3	Ich bin geflogen	I flew
4	Ich bin geblieben	I stayed
5	Ich habe gemacht	I did/made
6	Ich habe gespielt	I played
7	Ich habe gegessen	I ate
8	Ich habe getrunken	I drank
9	Ich habe gekauft	I bought
10	Ich habe gearbeitet	I worked
11	Ich habe gesehen	I watched
12	Ich habe gelesen	I read
13	Ich habe gefunden	I found
14	ich habe besucht	I visited

Using Geben		
1	es gibt	There is/are
2	es gab	There was/were
3	es wird...geben	There will be
4	es würde...geben	There would be

Simple Past		
1	ich war	I was
2	es war	it was
3	sie waren	they were
4	ich hatte	I had
5	es gab	there was/were

Conditional Fancy		
1	ich wäre	I would be
2	es wäre	it would be
3	sie wären	they would be
4	ich hätte	I would have
5	es gäbe	there would be

Future/Conditional Tense		
ich werde/möchte....(I will/would like to)		
1	...sein	be
2	...werden	become
3	...gehen	go
4	...fahren	travel
5	...spielen	play
6	...essen	eat
7	...trinken	drink
8	...sehen	see
9	...arbeiten	work
10	...lesen	read
11	...machen	make/do
12	...besuchen	visit

Structures With Infinitives		
1	ich muss...machen	I have to do
2	ich darf...machen	I am allowed to do
3	ich kann...machen	I can do
4	ich soll...machen	I should do
5	ich will...machen	I want to do
6	man muss/kann/soll...machen	you must/can/should do

Present Tense		
1	Ich bin	
2	Ich habe	
3	Ich mache	
4	Ich gehe	
5	Ich fahre	
6	Ich mag	
7	Ich hasse	
8	Ich spiele	
9	Ich esse	
10	Ich trinke	
11	Ich lese	
12	Ich sehe	
13	Ich kaufe	
14	Ich finde	
15	Ich arbeite	
16	Ich denke	
17	Ich muss	
18	Ich kann	
19	Ich will	
20	es ist	

Perfect Tense		
1	Ich bin gegangen	
2	Ich bin gefahren	
3	Ich bin geflogen	
4	Ich bin geblieben	
5	Ich habe gemacht	
6	Ich habe gespielt	
7	Ich habe gegessen	
8	Ich habe getrunken	
9	Ich habe gekauft	
10	Ich habe gearbeitet	
11	Ich habe gesehen	
12	Ich habe gelesen	
13	Ich habe gefunden	
14	ich habe besucht	


Using Geben		
1	es gibt	
2	es gab	
3	es wird...geben	
4	es würde...geben	

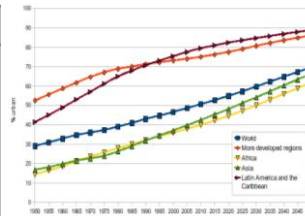
Simple Past		
1	ich war	
2	es war	
3	sie waren	
4	ich hatte	
5	es gab	
Conditional Fancy		
1	ich wäre	
2	es wäre	
3	sie wären	
4	ich hätte	
5	es gäbe	

Future/Conditional Tense		
ich werde/möchte....(I will/would like to)		
1	...sein	
2	...werden	
3	...gehen	
4	...fahren	
5	...spielen	
6	...essen	
7	...trinken	
8	...sehen	
9	...arbeiten	
10	...lesen	
11	...machen	
12	...besuchen	

Structures With Infinitives		
1	ich muss...machen	
2	ich darf...machen	
3	ich kann...machen	
4	ich soll...machen	
5	ich will...machen	
6	man muss/kann/soll...machen	

A. A growing percentage of the world's population lives in urban areas.

1	 <p>Urbanisation</p>	<p>This is an increase in the amount of people living in urban areas such as towns or cities. In 2007, the UN announced that for the first time, more than 50 % of the world's population live in urban areas. Urbanisation is happening all over the world but in LICs and NEEs rates are much faster than HICs. This is mostly because of the rapid economic growth they are experiencing.</p>
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D. Urban sustainability requires management of resources and transport.

1	Sustainable cities	Sustainable urban living means being able to live in cities in ways that do not pollute the environment and using resources in ways that ensure future generations also can use them.
2	London's congestion scheme	<ul style="list-style-type: none"> Widen roads to allow more traffic to flow easily. Build ring roads and bypasses to keep through traffic out of city centres. Introduce park and ride schemes to reduce car use. Encourage car-sharing schemes in work places. Have public transport, cycle lanes & cycle hire schemes. Having congestion charges discourages drivers from entering the busy city centres
3	Urban regeneration	The investment in the revival of old, urban areas by either improving what is there or clearing it away and rebuilding

B. Urban growth creates opportunities and challenges for cities in LICs and NEEs.



1	Rio De Janeiro	Rio is a coastal city situated in the South East region of Brazil within the continent of South America. It is the second most populated city in the country (6.5 million) after Sao Paulo
2	Opportunities	<p>Social: Standards of living are gradually improving. The Rio Carnival is an important cultural event for traditional dancing and music.</p> <p>Economic: Rio has one of the highest incomes per person in the country. The city has various types of employment including oil, retail and manufacturing.</p> <p>Environmental: The hosting of the major sporting events encouraged more investment in sewage works and public transport systems.</p>
3	Challenges	<p>Social: There is a severe shortage of housing, schools and healthcare centres available. Large scale social inequality, is creating tensions between the rich and poor.</p> <p>Economic: The rise of informal jobs with low pay and no tax contributions. There is high employment in shanty towns called Favelas</p> <p>Environmental: Shanty towns called Favelas are established around the city, typically on unfavourable land, such as hills.</p>
4	Self-help schemes - Rocinha, Bairro Project	<ul style="list-style-type: none"> The authorities have provided basic materials to improve peoples homes with safe electricity and sewage pipes. Government has demolished houses and created new estates. Community policing has been established, along with a tougher stance on gangs with military backed police. Greater investment in new road and rail network to reduce pollution and increase connections between rich and poor areas.

C. Urban change in cities in the UK leads to a variety of social, economic and environmental opportunities and challenges.



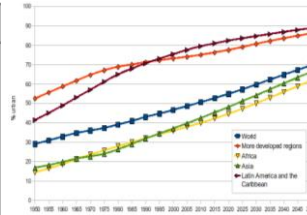
1	Importance of London	The UK largest and wealthiest city. It has world city status- so has global influence. Financial centre of the world (along with New York). Location for the headquarters of large international companies and British companies. Centre for media and communications.
2	Opportunities	<p>Social: Cultural mix- ethnic diversity. London has a well integrated transport system including public transport. Recreation and entertainment opportunities.</p> <p>Economic: Excellent employment opportunities. Growth in services- professional, real estate and business services, management consultancy and law.</p> <p>Environmental: Urban greening- London is one of the world's greenest cities. 47% is green space – parks, woodlands, cemeteries and gardens. Spaces offer recreational opportunities. There are 30,000 allotments in London here people grow food. 61% of waste in London is recycled.</p>
3	challenges	<p>Social: There is a severe shortage of housing, schools and healthcare centres available. Large scale social inequality, is creating tensions between the rich and poor.</p> <p>Economic: The rise of informal jobs with low pay and no tax contributions. There is high employment in shanty towns called Favelas</p> <p>Environmental: Shanty towns called Favelas are established around the city, typically on unfavourable land, such as hills.</p>



A. A growing percentage of the world's population lives in urban areas.

1

Urbanisation



D. Urban sustainability requires management of resources and transport.

1 Sustainable cities

2 London's congestion scheme

3 Urban regeneration

B. Urban growth creates opportunities and challenges for cities in LICs and NEEs.



1

Rio De Janeiro

2

Opportunities

3

Challenges

4

Self-help schemes - Rocinha, Bairro Project

C. Urban change in cities in the UK leads to a variety of social, economic and environmental opportunities and challenges.



1 Importance of London

2 Opportunities

3 challenges





Subject: Geography

Topic: Urban issues

Year Group: 10

enjoy
learn
succeed

1) Brownfield site	Land that has been used, abandoned and now awaits some new use. Commonly found across urban areas, particularly in the inner city.
2) Dereliction	Abandoned buildings and wasteland.
3) Urbanisation	The process by which an increasing percentage of a country's population comes to live in towns and cities. Rapid urbanisation is a feature of many LICs and NEEs.
4) Urban regeneration	The revival of old parts of the built-up area by either installing modern facilities in old buildings (known as renewal) or opting for redevelopment (ie demolishing existing buildings and starting afresh).
5) Urban sprawl	The unplanned growth of urban areas into the surrounding countryside.
6) Waste recycling	The process of extracting and reusing useful substances found in waste.

7) Economic opportunities	Chances for people to improve their standard of living through employment.
8) Greenfield sites	A plot of land, often in a rural or on the edge of an urban area that has not yet been subject to any building development.
9) inequalities	Differences between poverty and wealth, as well as in peoples' wellbeing and access to things like jobs, housing and education. Inequalities may occur in housing provision, access to services, access to open land, safety and security.
10) Integrated transport systems	- When different transport methods connect together, making journeys smoother and therefore public transport more appealing. Better integration should result in more demand for public transport and should see people switching from private car use to public modes of transport, which should be more sustainable. It may also lead to a fall in congestion due to less road users.
11) Mega cities	An urban area with a total population in excess of ten million people.
12) Migration	When people move from one area to another. In many LICs people move from rural to urban areas (rural-urban migration).
13) Natural increase	The birth rate minus the death rate of a population.
14) pollution	The presence of chemicals, noise, dirt or other substances which have harmful or poisonous effects on an environment.

15) Rural-urban fringe	A zone of transition between the built-up area and the countryside, where there is often competition for land use. It is a zone of mixed land uses, from out of town shopping centres and golf courses to farmland and motorways.
16) Sanitation	Measures designed to protect public health, including the provision of clean water and the disposal of sewage and waste.
17) Social deprivation	The degree to which an individual or an area is deprived of services, decent housing, adequate income and local employment.
18) Sustainable urban living	A sustainable city is one in which there is minimal damage to the environment, the economic base is sound with resources allocated fairly and jobs secure, and there is a strong sense of community, with local people involved in decisions made. Sustainable urban living includes several aims including the use of renewable resources, energy efficiency, use of public transport, accessible resources and services.
19) Squatter settlement	An area of poor-quality housing, lacking in amenities such as water supply, sewerage and electricity, which often develops spontaneously and illegally in a city in an LIC.
20) Social opportunities	Chances for people to improve their quality of life, for instance access to education and health care.
21) Traffic congestion	Occurs when there is too great a volume of traffic for roads to cope with, so traffic jams form and traffic slows to a crawl.
22) Urban greening	The process of increasing and preserving open space such as public parks and gardens in urban areas.

1) Brownfield site		7) Economic opportunities		15) Rural-urban fringe	
2) Dereliction		8) Greenfield sites		16) Sanitation	
3) Urbanisation		9) inequalities		17) Social deprivation	
4) Urban regeneration		10) Integrated transport systems		18) Sustainable urban living	
5) Urban sprawl		11) Mega cities		19) Squatter settlement	
6) Waste recycling		12) Migration		20) Social opportunities	
		13) Natural increase		21) Traffic congestion	
		14) pollution		22) Urban greening	

Capitalism vs Communism

1	What is Capitalism?	<ol style="list-style-type: none"> Governments should be elected by the people through fair elections, People should have opportunity to become very wealthy Society is made up of free individuals
2	What is Communism?	<ol style="list-style-type: none"> One unelected political party runs the country. Wealth is to be shared between citizens. No private businesses, the government controls the production of goods and food. The collective is more important than individuals.

What was the Korean War?

1	What were the causes of the Korean War?	<ol style="list-style-type: none"> After WW2, Korea was divided in two at the 38th Parallel. The North became Communist led by Kim Il Sung with the USSR's support. The South became Capitalist led by Syngman Rhee with the USA's support. Both sides of Korea wanted to reunite but could not agree on their political ideology. North Korea invaded South Korea in 1950.
2	What happened during the Korean War?	<ol style="list-style-type: none"> North Korea invaded South Korea in June 1950. The UN responded and sent troops (mostly made up of American soldiers) to protect South Korea. In October 1950, Communist China entered the war on North Korea's side, leading to stalemate. Both sides tried to break the stalemate and peace was eventually agreed in July 1953.
3	What was the impact of the Korean War?	<ol style="list-style-type: none"> North and South Korea would remain separate countries. A 3km demilitarized zone was placed between the two countries. Thousands of troops on both sides (including the USA) were killed. 2 million South Korean civilians were killed. The USA and USSR spent billions on the war – developing their own nuclear weapons. USA developed stronger relationships with non-Communists countries. USSR developed a stronger relationship with Communist China.

Key Events

1	June 1950	<ol style="list-style-type: none"> North Korea invaded South Korea The UN called an emergency meeting and decided to intervene to protect South Korea This happened because the USSR were boycotting the UN meetings
2	June-Sept 1950	<ol style="list-style-type: none"> The North pushed South quickly and captured Seoul within 3 days By early September the North had captured all of the South but a small area around Pusan
3	Sept 1950	<ol style="list-style-type: none"> The US put General MacArthur in charge of the UN troops. He planned attacks to land at Inchon and from Pusan
4	Oct 1950	<ol style="list-style-type: none"> The UN and South Korean troops recaptured Seoul and quickly pushed the North Korean troops back above the 38th Parallel The UN and US troops chose to push on into North Korea in an attempt to unite the country China became worried about the advance of these troops and Mao issued a warning that they would intervene – MacArthur ensured Truman that this was a bluff On the 14th, 200,000 Chinese troops crossed the Yalu River to support the North Koreans
5	1951	<ol style="list-style-type: none"> The entry of China's large army pushed the US and UN forces back across the 38th Parallel By January, they captured almost all of Korea But their supply lines were over-stretched and the US and UN forces pushed them back to the 38th parallel Stalemate had been reached
6	April 1951	<ol style="list-style-type: none"> President Truman wanted to avoid a full-scale war with China and felt the US was successful in containing communism. MacArthur wanted to continue the attack and even sent a letter China threatening to use nuclear weapons He had gone too far and was sacked by Truman

Key Events

7	July 1951	<ol style="list-style-type: none"> Both sides suffered heavy casualties as they tried to break the stalemate Peace talks began in July, but broke down as both sides kept fighting to try to gain an advantage
8	1952	<ol style="list-style-type: none"> The USA began heavy bombing raids in the North aimed at military targets Heavy damage was taken by the civilian population especially when napalm was used
9	Nov 1952	<ol style="list-style-type: none"> Truman decided not to run for re-election, having lost popularity over the Korean War The Republican Eisenhower won. He received support from strong anti-communists
10	March 1953	<ol style="list-style-type: none"> The death of Stalin had a huge effect on world relations Many believed that the Cold War tensions could begin to ease.
11	27 July	<ol style="list-style-type: none"> An armistice was signed by the USA, China and North Korea. South Korea refused to sign but had to accept it

Key Individuals

1	Harry Truman	President of the USA 1945-53
2	Josef Stalin	Leader of the USSR
3	Kim Il Sung	Communist leader of North Korea
4	Syngman Rhee	Capitalist leader of South Korea
5	General MacArthur	American General in charge of UN troops in Korea
6	Mao	Communist leader of China

Key word	Definition
38 th parallel	Line dividing that US and USSR used to divide Korea in to two zones.
Cominform	Group set up by Stalin to coordinate actions of communist countries against the West.
Communism	Political ideology opposed to capitalism where government distributes wealth among citizens.
Containment	US policy from 1947 to prevent communism from spreading any further.
Limited Warfare	Where Superpowers do not use their full force to prevent a larger conflict
MAD – Mutually Assured Destruction	The idea that because both superpowers had nuclear weapons using them against each other would destroy both countries.
Marshall Plan	US policy to provide aid to countries to prevent them becoming communist.
Nationalism	The idea, held by both Korean leaders, that Korea had its own special identity and should be one country.
Proxy War	Where two powerful nations use a smaller conflict to advance their interests
Stalemate	Neither side can win. This was the situation in Korea from March 1951
Superpower	A very powerful and rich country. (USA and USSR)
Truman Doctrine	President Harry Truman's pledge to stop the spread of communism (1947)
UN	United Nations – set up after WW2 to prevent conflict
Veto	The right to block a decision made by others

Capitalism vs Communism

1	What is Capitalism?	
2	What is Communism?	

What was the Korean War?

1	What were the causes of the Korean War?	
2	What happened during the Korean War?	
3	What was the impact of the Korean War?	

Key Events

1	June 1950
2	June-Sept 1950
3	Sept 1950
4	Oct 1950
5	1951
6	April 1951

Key Events

7	July 1951
8	1952
9	Nov 1952
10	March 1953
11	27th July 1953

Key Individuals

1	Harry Truman	
2	Josef Stalin	
3	Kim Il Sung	
4	Syngman Rhee	
5	General MacArthur	
6	Mao	

Key word

Definition

38th parallel

Cominform

Communism

Containment

Limited Warfare

MAD – Mutually Assured Destruction

Marshall Plan

Nationalism

Proxy War

Stalemate

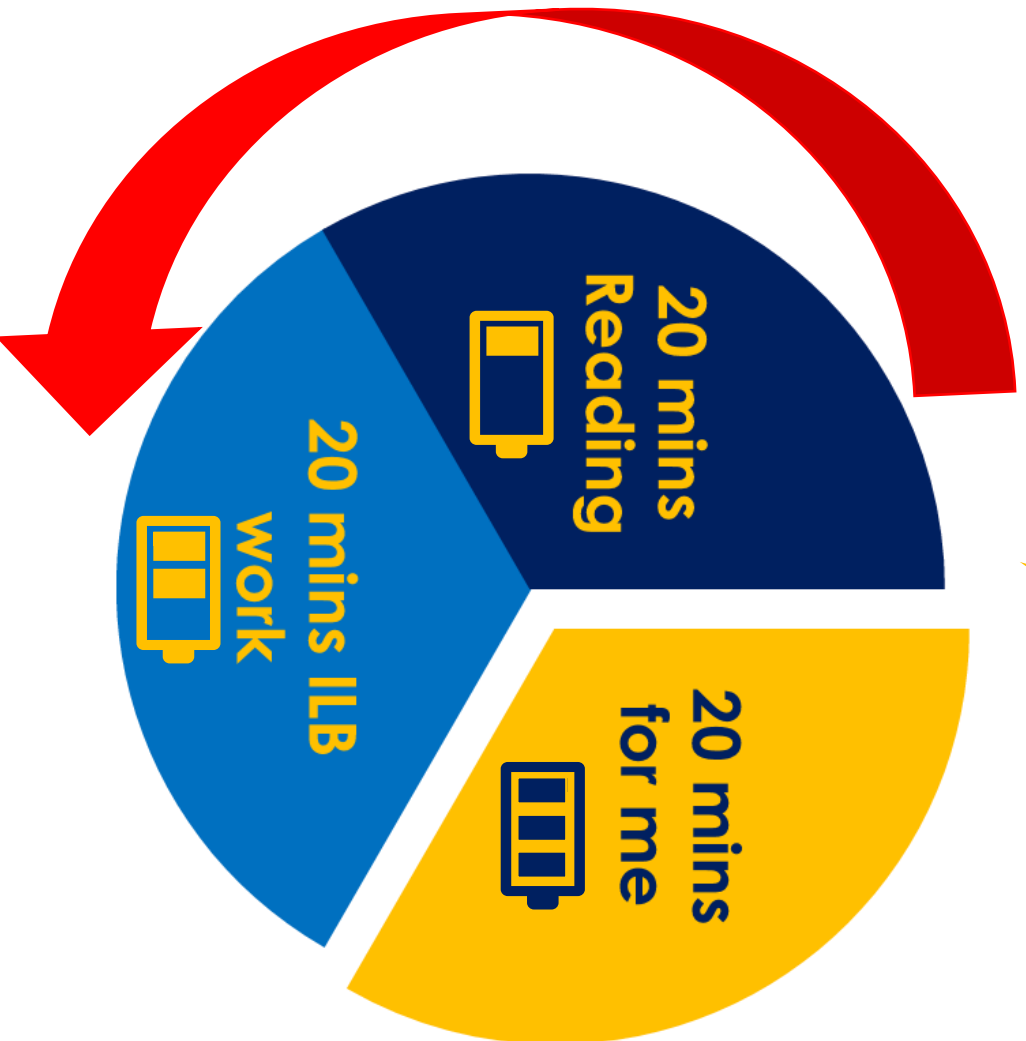
Superpower

Truman Doctrine

UN

Veto

The Beckfoot Power ⚡ Hour



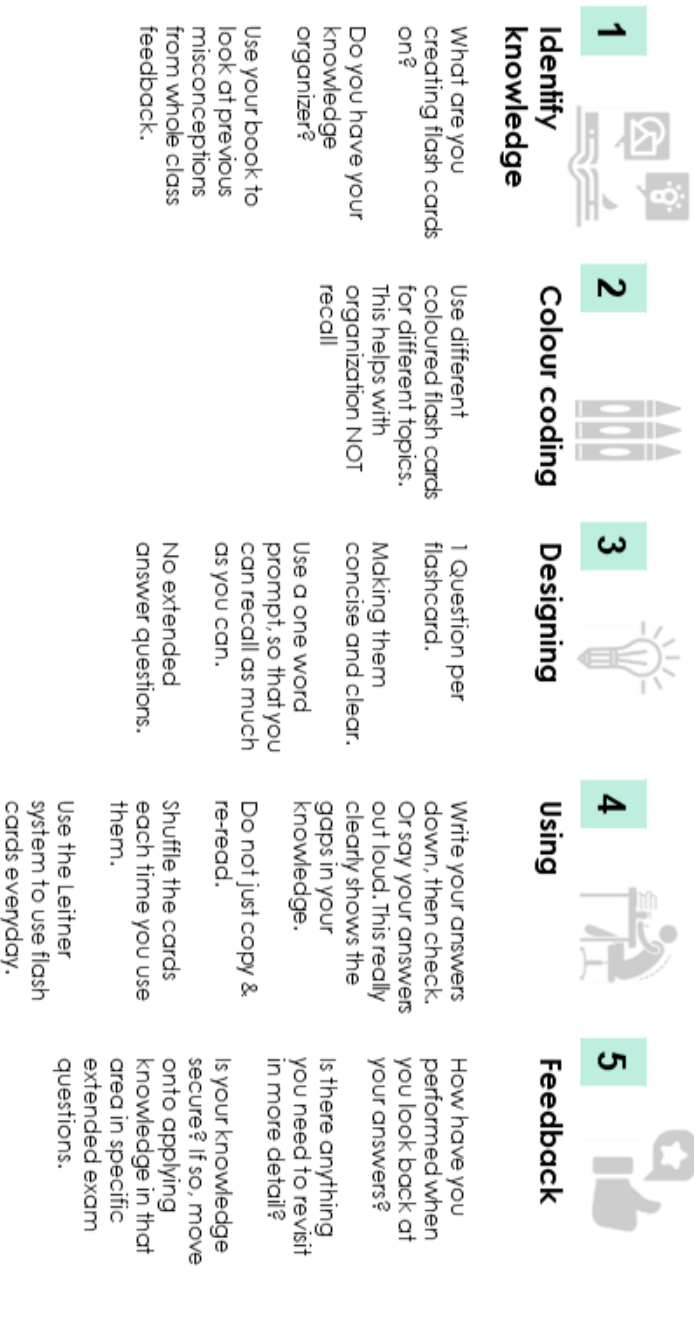
The Beckfoot Power Hour is a way to help you build positive routines around your independent learning. Little and often is the key!

Your Power Hour should include three chunks: 20 minutes of **reading**; 20 minutes of **Revise Like a Beckfooter** activities in your ILB; and at least 20 minutes of **something you really enjoy** as a reward at the end.

Building habits like this will boost your academic performance and help support your mental wellbeing at the same time.

Have a go at building a Power Hour into your day as often as you can. We would suggest **5 times a week** is the optimum amount.

Flash Cards



Avoid answering the questions in your head: research shows that when you read a question and answer it in your head, you aren't actually testing your knowledge effectively. Say the answer out loud or write it down before checking it against the card, so you are truly testing if you can explain the answer properly

Use this table to help you keep track of the flash cards you have made and used this half term. There are some flash-card templates for you to use overleaf.

Week 1	Which Subject/Topic?	Week 2	Which Subject/Topic?
Day 1		Day 1	
Day 2		Day 2	
Day 3		Day 3	
Day 4		Day 4	
Day 5		Day 5	

Mind-Maps



1

Identify knowledge

Select a topic you wish to revise. Have your class notes/knowledge organisers ready.

2

Identify sub topics

Place the main topic in the centre of your page and identify sub topics that will branch off.

3

Branch off

Branch of your sub topics with further detail.
Try not to fill the page with too much writing.

4

Use images & colour

Use images and colour to help topics stick into your memory.

5

Put it somewhere visible

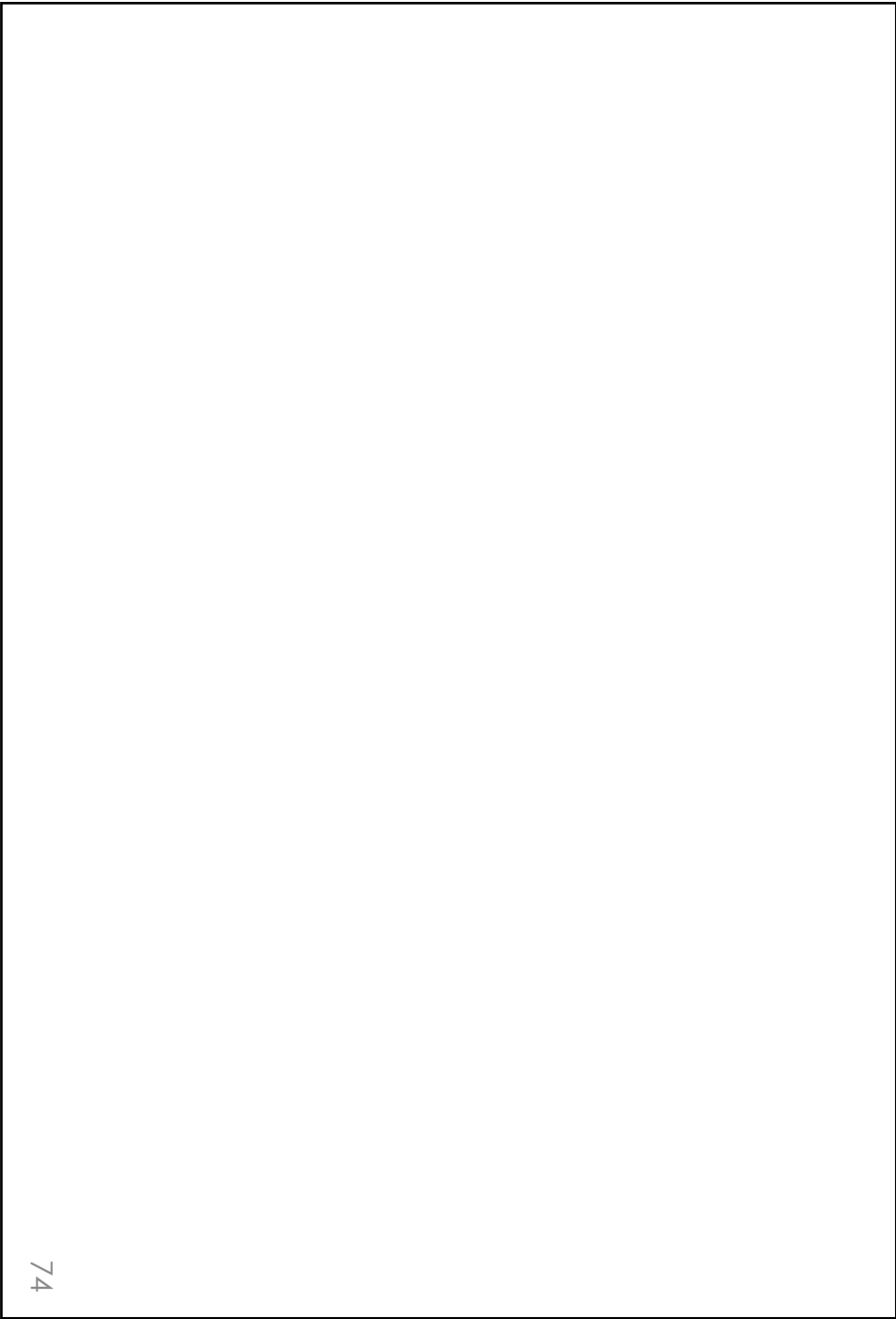
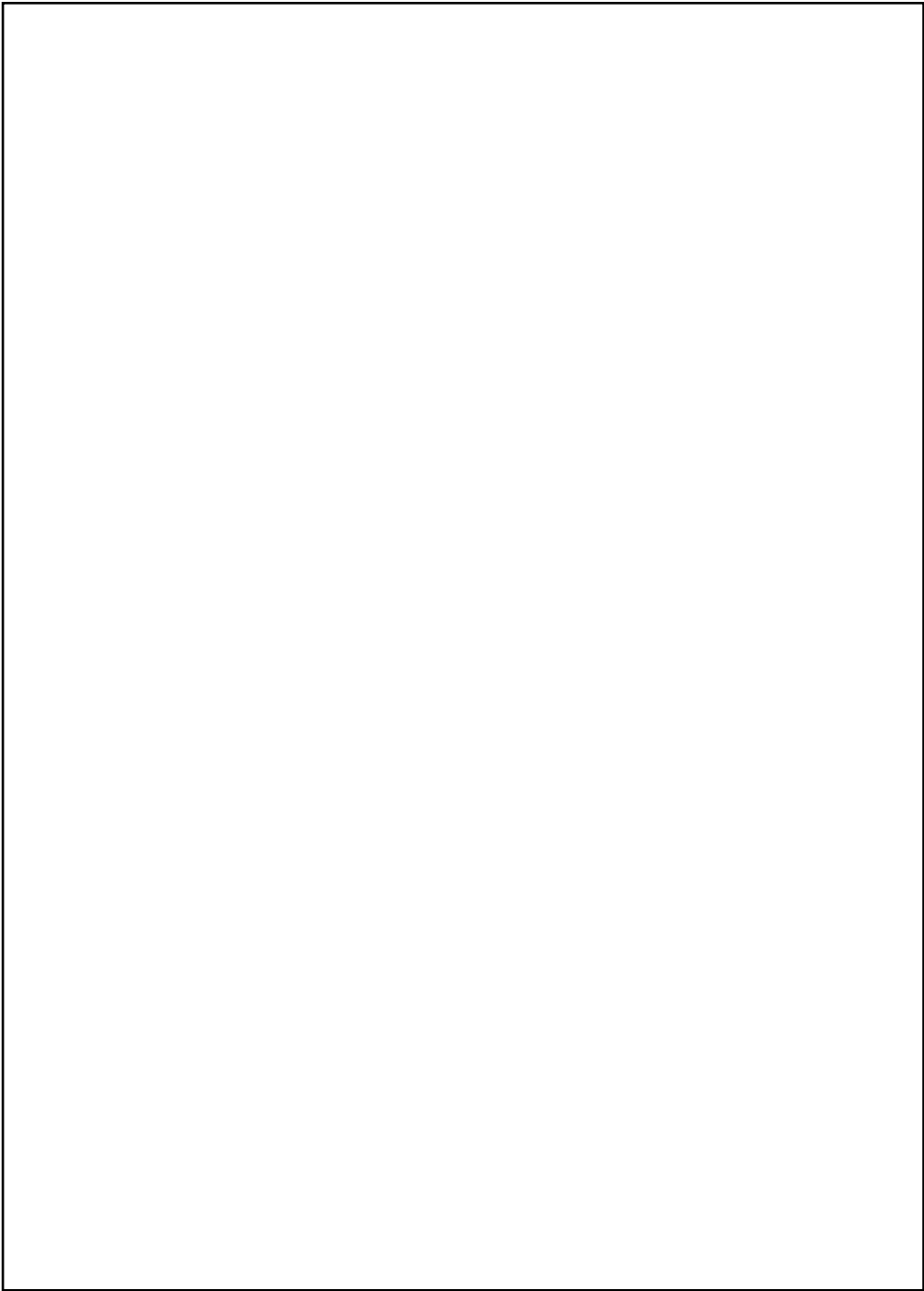
Place completed mind maps in places where you can see them frequently.

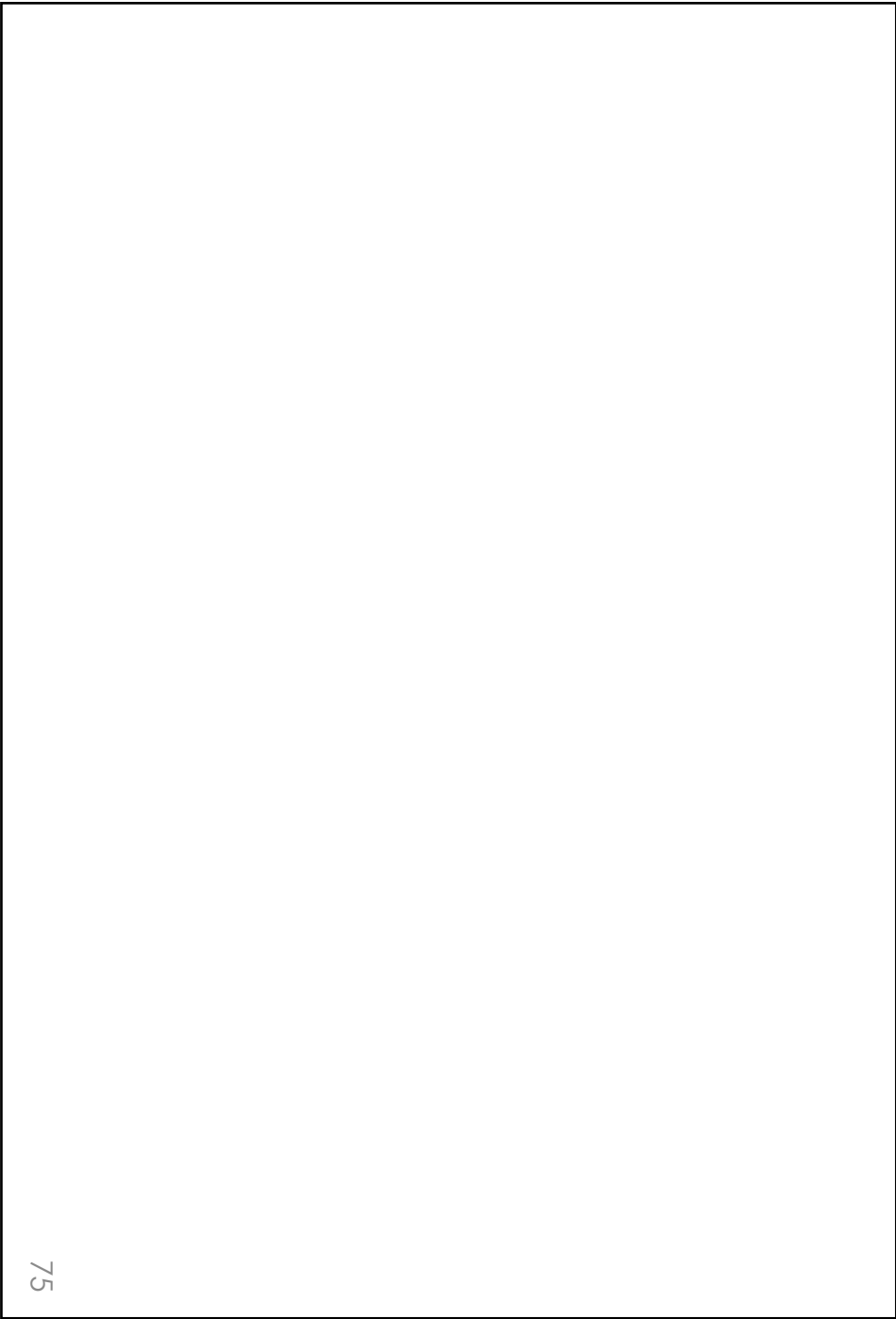
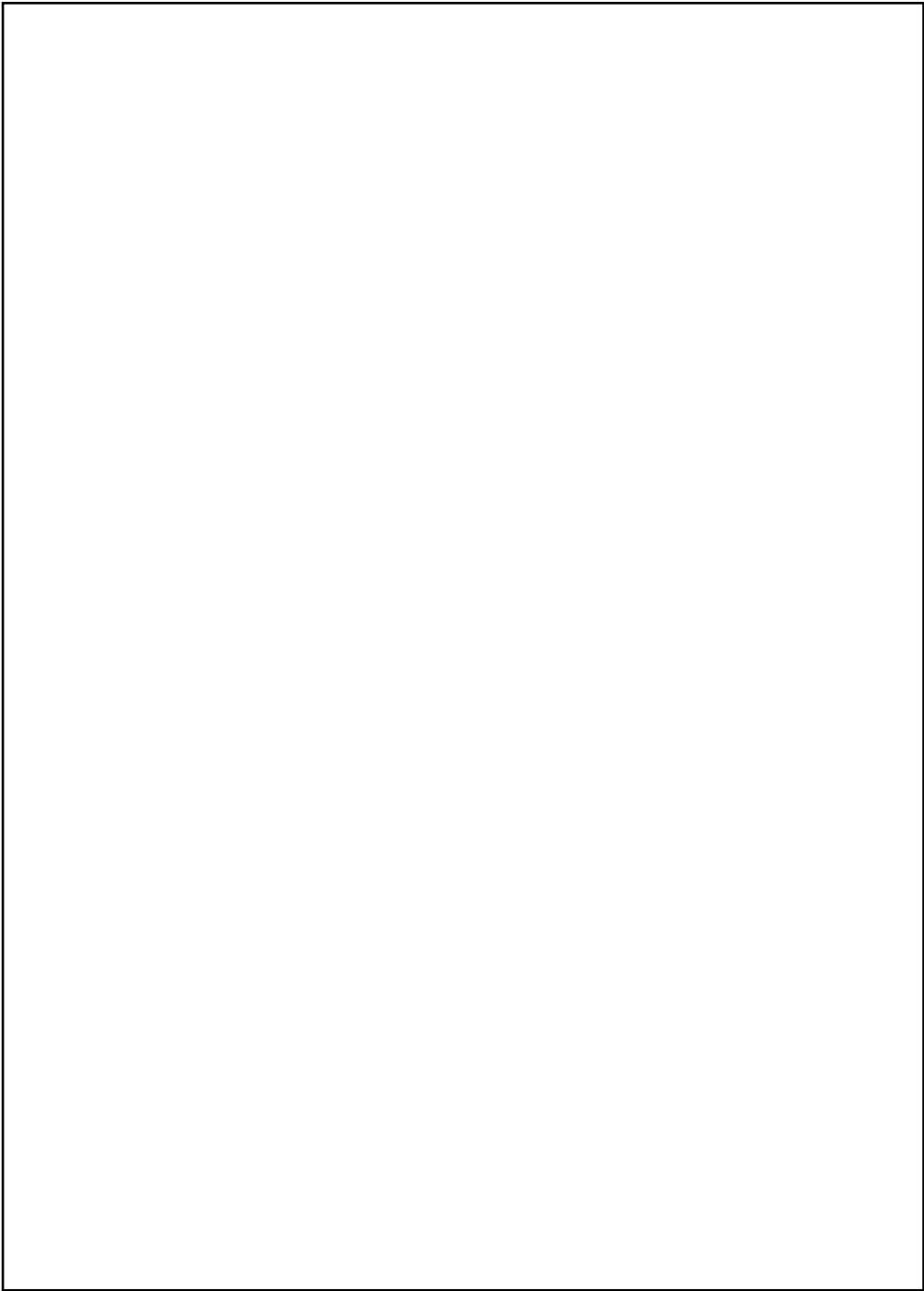
Avoid using too much information: mind maps are designed to summarise key information and connect areas of a topic/subject. If you overcrowd the page, you lose the point of the mind map and will find it harder to visualise the information when trying to recall it

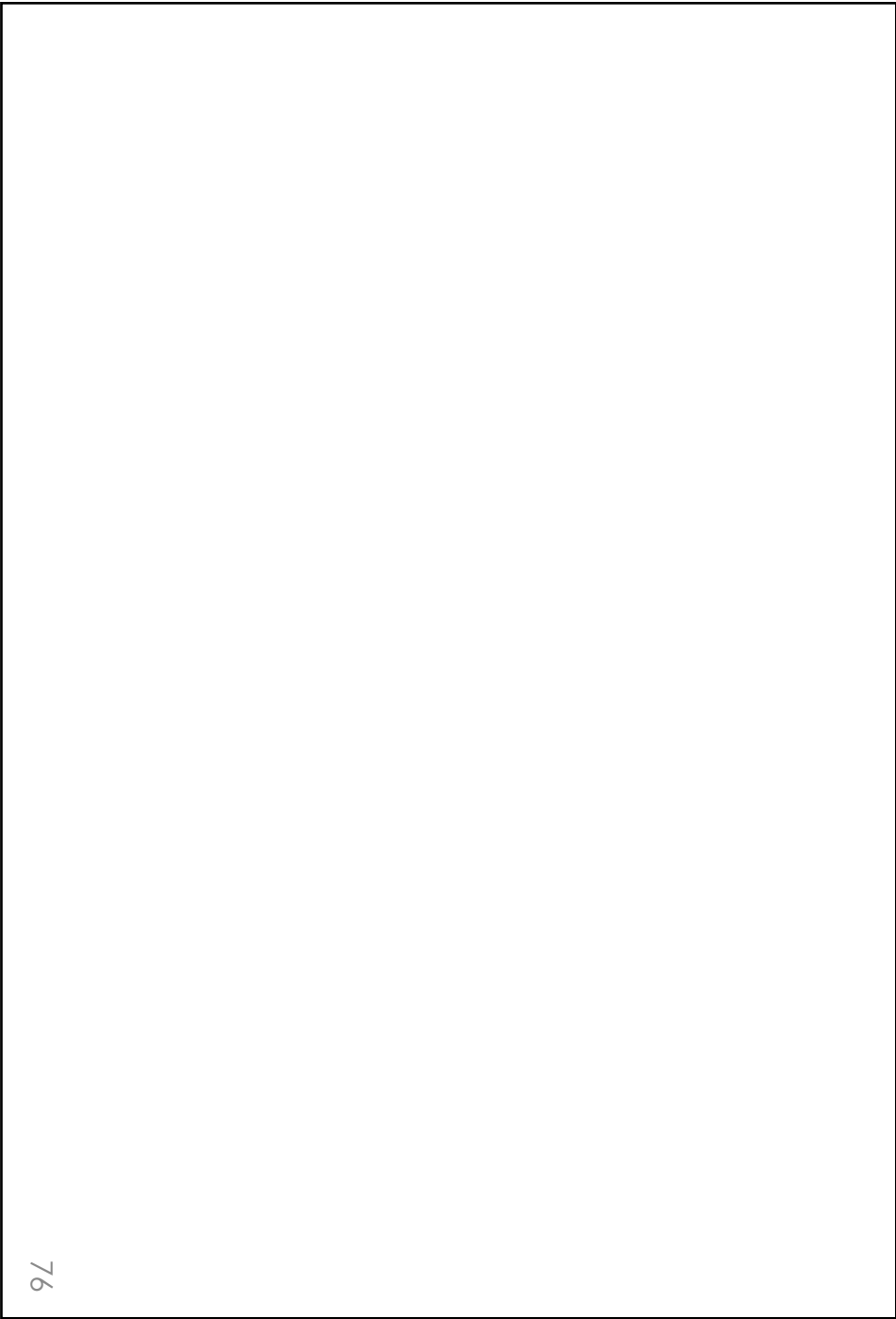
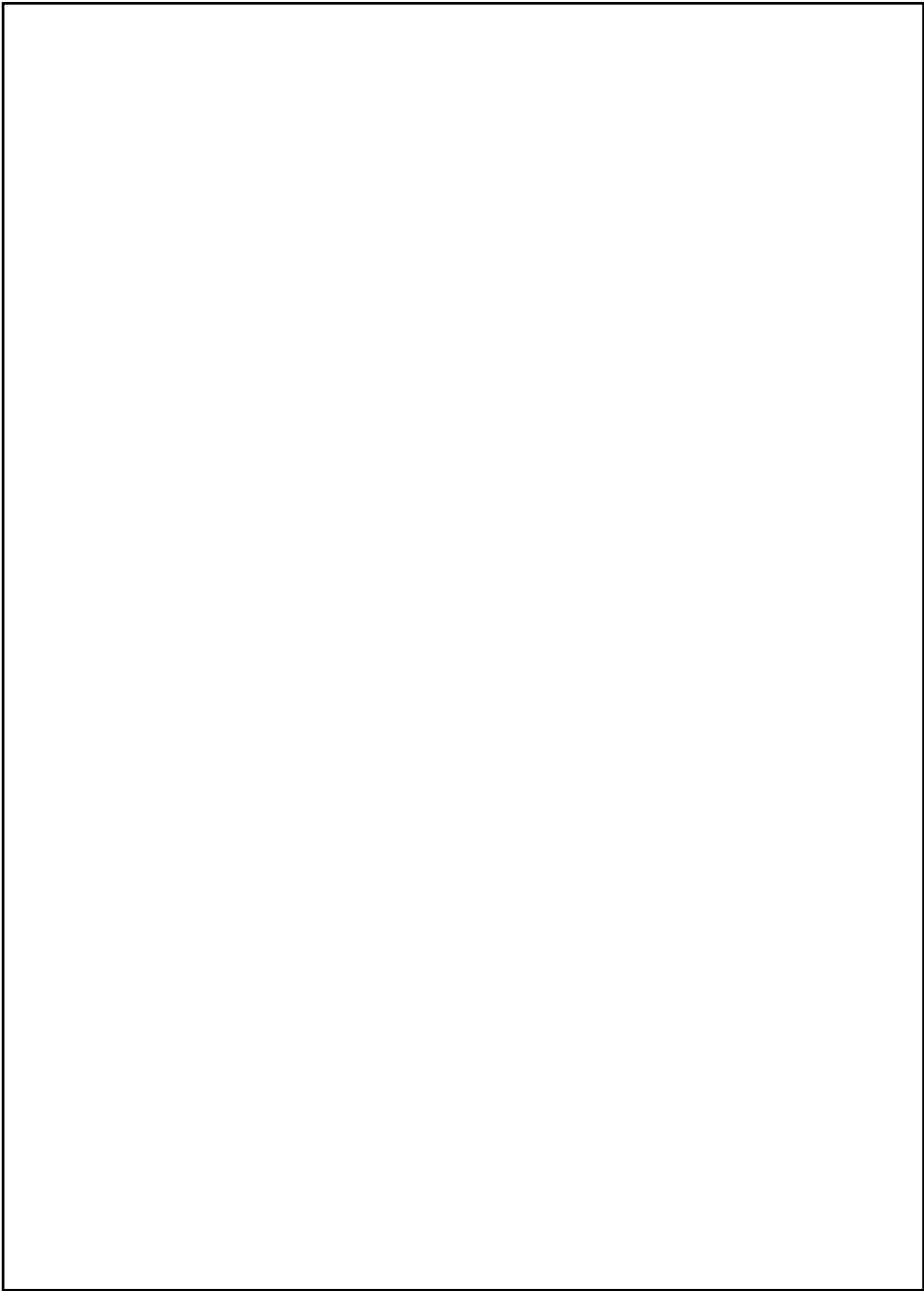
Use this table to help you keep track of the mind-maps you have completed and checked this half term. There are some mind-map templates for you to use overleaf.

Week 1	Which Subject/Topic?	Week 2	Which Subject/Topic?
Day 1		Day 1	
Day 2		Day 2	
Day 3		Day 3	
Day 4		Day 4	
Day 5		Day 5	

Mind-Maps







Brain-Dumps



1

Identify knowledge

Identify the knowledge/topic area you want to cover.



2

Write it down

Take a blank piece of paper/white board and write down everything you can remember about that topic. (With no prompts)

Give yourself a timed limit (e.g. 10 minutes)



3

Organise information

Once complete and you cannot remember any more use different colours to highlight/underline words in groups.

This categories/links information.



4

Check understanding

Compare your brain dump to your K/O or book and check understanding.

Add any key information you have missed (key words) in a different colour.



5

Store and compare

Keep your brain dump safe and revisit it.

Next time you attempt the same topic try and complete the same amount of information in a shorter period of time or add more information.

Brain dumps are a way of getting information out of your brain.

Use this table to help you keep track of the brain-dumps you have completed and checked this half term. There are some brain-dump templates for you to use overleaf.

Week 1	Which Subject/Topic?	Week 2	Which Subject/Topic?
Day 1		Day 1	
Day 2		Day 2	
Day 3		Day 3	
Day 4		Day 4	
Day 5		Day 5	

Revise Like a Beckfooter Rewards

Great independent learning and revision are vitally important for your academic success. We have high expectations for everyone because we whole-heartedly believe that you deserve to have the best chances in life.

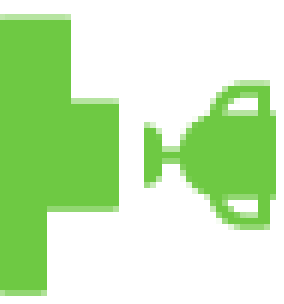
Our **minimum** expectations of KS3 students for their independent learning are as follows:

- **5 QILMISI tasks** per week using the specified strategy (on Class Charts)
- You choose the subjects – we set the tasks
- Bring your ILB to school every day

If you do not meet our minimum expectations, this will be logged on Class Charts in the same way as a missed homework.

We also recognise that often, students will want to do even more than this, and we want to support and celebrate that achievement with you. The more independent learning/revision you do, the more Class Charts points you will receive

The following rewards are available for those students who commit to their independent learning/revision and go above and beyond expectations:



1 – 2
additional tasks

3 – 4
additional tasks

5
additional tasks

10 points

20 points

50 points