Name: Form:

"Every single effort of every single session counts in the months and years leading up to a big event."

Sir Chris Hoy

Hoy is a former Great British track cyclist who became one of the most successful British Olympians of all time, wining a staggering six gold medals.

Bluecoat Wollaton
believe in yourself, in others, in God

YEAR 10
KNOWLEDGE ORGANISER:
Spring Term 2024

CONTENTS PAGE:

Instructions for using your Knowledge Organiser

Every school day you should be studying at least **1** section of your Knowledge Organiser (KO) for homework.

The timetable on the next page tells you which subjects you should be studying on which days (it doesn't matter if you have that subject on that day or not, you should follow the timetable).

You are to use your exercise book to show the work you have done. Each evening you should start a new page and put the date clearly at the top.

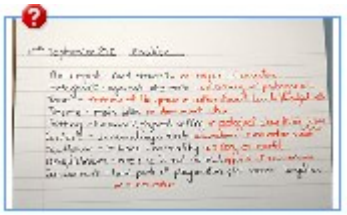
You need to bring your KO and exercise book with you **EVERYDAY** to the academy.

Your parents should tick off your homework every evening using the grid in your KO on page 4. Parents should also sign off your reading using the reading log on page 5, this will be checked in your library lesson.

Your KO and exercise book will be checked regularly in form time, failure to show homework for **ALL FIVE** days of the week will result in an after school detention that day.

You will also be tested in your lessons on knowledge from the organisers.

Self-testing



You can use your KOs and book in a number of different ways but you **should not just copy** from the Knowledge Organiser into your book. Use the ***'How to self-test with the Knowledge Organiser'*** booklet to help you. It can also be found here: http://www.bluecoatwollaton.co.uk/learning/knowledge-organisers/

Below are some possible tasks you could do in your workbooks, **no matter which task you do you should always check and correct your work in a different coloured pen.**

- Ask someone to write questions for you
- Write your own challenging questions and then leave it overnight to answer them the next day
- Create mindmaps
- Create flashcards
- Put the key words into new sentences
- Look, cover, write and check
- Mnemonics
- Draw a comic strip of a timeline
- Use the 'clock' template to divide the information into smaller sections. Then test yourself on different sections
- Give yourself spelling tests
- Definition tests
- Draw diagrams of processes
- Draw images and annotate/label them with extra information
- Create fact files

Presentation

You should take pride in how you present your work:

- Each page should be clearly dated at the top left hand side with Subject 1 written in the middle.
- Half way down the page a line should divide it in two with Subject 2 written above the dividing line.
- Each half of the page should be neatly filled with evidence of self-testing. There should be an appropriate amount of work.
- Failure to show pride in your presentation or wasting space on your page with large writing or starting a number of lines down will result in a **negative point.**

How do I self-quiz?

How to use...Flashcards

1. On one side of the flash card, write the word or question.
2. On the other side, write the definition for the word, or answer to the question.
3. Once you have completed your set of cards, put them in a pile. Then for each card, see if you can remember the definition or answer to the question. Tick or cross when you get it right or wrong.
4. When you get the card right, place it in the 'correct' pile. When you get it wrong, place it in the 'wrong' pile. Repeat until all cards are in the 'correct' pile.

You can also use the Leitner Method: **https://www.youtube.com/watch?v=C20EvKtdJwQ**

How to use… Look, Cover, Write, Check and Correct

1. Write your key words into the 'Look, Cover' column and then cover it.
2. Write out the meaning, definition or spelling in the 'Write' column.
3. Put a 'tick' or 'cross' in the 'Check' column depending on if you got the answer right.
4. If you got the answer incorrect, write the correct answer in the 'Correct' column.

Look , Cover	Write	Check	Correct
Noun	A person, place or	✓	
Algorithm	Algorithim	X	Algorithm

How to use… Mind Maps

1. Write out your topic or idea in the centre. E.g. The First World War.
2. Off of the main bubble, write out important categories to organise your ideas. E.g. causes of WWI and events in WWI
3. Then add your knowledge off of these branches. You might even be able to make connections between them.
4. Once made, then redraw as many of the connections as possible from memory. Correct any errors.

How to use… Explaining a process/ idea further

Your teacher might ask you to explain a key idea, process or event from your learning. This could be the water cycle (Geography), photosynthesis (Science) or something else. In your answer, try to use the words **because, but**, and **so.** These will help you to:

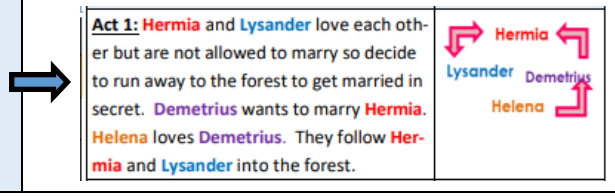
1. **Because:** helps to explain a reason, cause or why something works.
2. **But:** helps to explain a limitation or problem.
3. **So:** helps to explain what happens next in a sequence, process or event.

Check your sentences to see if your explanations or right or wrong. Correct any errors.

How to… Summarise a process/idea

Rather than expand or explain a process, your teacher might ask you to summarise it into its key parts. E.g. summarising the plot 'A Midsummer Night's Dream' in English.

1. Read through the relevant part of your knowledge organiser as directed by your teacher.
2. Write out the (up to) 5 most important parts in your KO book, leaving a two lines in-between.
3. For each part, add **one** main idea.
4. E.g. here, the 4 key characters are picked out, and the direction of love is shown through the arrows. Check and correct any errors.



How to use… Subject Specific Tasks or Questions

Your teacher might choose to set a task that is not outlined here, and which is specific to that topic or their subject.

In this case, your teacher will outline specifically what it is you need to do, and how. This will still include you checking and correcting any errors.

Year 10 Knowledge Organiser Schedule: Spring Term

You are expected to study the subject(s) shown on your timetable each day.

Each day use a page of your exercise booklet to evidence your work.

Timetable for weeks beginning; 08/01/24 22/01/24 05/02/24 26/02/24 11/03/24 25/03/24		**Subject 1**	**Subject 2**
	Monday	English	Bedrock
	Tuesday	Maths	**A**
	Wednesday	Science	RE
	Thursday	English	Maths
	Friday	Science	Bedrock

For weeks beginning; 15/01/24 29/01/24 19/02/24 04/03/24 18/03/24		**Subject 1**	**Subject 2**
	Monday	English	Bedrock
	Tuesday	Maths	**B**
	Wednesday	Science	**C**
	Thursday	English	Maths
	Friday	Science	Bedrock

To know which of your options subjects you should study look for your class code (you can find this on your main academy timetable) in the table below. Once you identify your subjects write them onto your homework timetable above. E.g. if you are in **10A/Hi1** you would write **History** in the box with the **A.**

Option A	Options B	Options C
10A/Gg1 - Geography	10B/Hi1 - History	10C/Hs1 - Health and Social
10A/Gg2 - Geography	10B/So1 - Sociology	10C/ So1 - Sociology
10A/Hi1 - History	10B/So2- Sociology	10C/Gg1 - Geography
10A/Hi2 - History	10B/DT1—DT	10C/St1 - Sport
10A/Sp1 - Spanish	10B/Fn1 - Food	10C/DT1—DT
10A/Co1- Computer Science	10B/Hs1 - Health and Social	10C/Pe1-PE
	10B/Ar1– Art	

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Year 10 Spring Term 1

You are expected to study the subject(s) shown on your timetable each day. Each day use **one page** of your exercise book to evidence your work.

Date	Subjects and Tasks	Signed by parents/ carers once complete
08/01/2024 Monday	**English Language: KAP revision:** use section 4 to revise the key structures and questions. Create a revision table of how many marks and the timings for each of these questions. Test yourself on this after by covering and quizzing.	
	Personal choice: Pick **one** of your subjects (this could be one you feel least confident in), and think about a topic you need to revise – perhaps considering your results in recent assessments. Complete a self-planned revision activity using your KO. Look at page 4 to remind you of the best ways to self-quiz**.**	
09/01/2024 Tuesday	**Maths:** Make a flash card for each of the "concepts seen before". These could be definitions or examples of the concept. You could use diagrams to help explain each concept.	
	Option A: See the subject page for Geography, Computer Science, History or Spanish. Classes: 10A/Gg1, 10A/Gg2, 10A/Co1, 10A/Hi1, 10A/Hi2, 10/Sp1.	
10/01/2024 Wednesday	**Science: Chemistry C4 (Section A):** Learn the spellings and the definitions of the Tier 2 vocabulary words. Do this using Look, Cover, Write, Check and Correct. Use the tier 2 words in sentences that *also* use at least one tier 3 word from this page.	
	RE: Christianity: Living a Christian life - Worship Task 1: Learn five Tier 3 vocabulary terms using the look, cover, write and check method. Task 2: Now write each of those five key words in a sentence. Draw an image to represent its meaning.	
11/01/2024 Thursday	**English Literature: KAP revision.** Use Sections 2 and 3 of your Power and Conflict Knowledge Organiser to revise the poems in the cluster. For each poem you should know the key ideas and the key themes that are demonstrated.	
	Maths: Sparx Login to Sparx and select either the 'XP boost' or 'Target' tab on the left side. Select a homework week and complete 6 of these questions. Write out the question and the full worked solution. Think about the knowledge that each question is using and highlight this in your book.	
12/01/2024 Friday	**Science: Physics P3 (Section C):** Calculate the density for these regular shaped objects (Using the equation in section C): a) Volume = 40m^3 and mass = 12kg b) Volume = 2.5m^3 and mass = 6kg c) Volume = 75cm^3 and mass = 4g. **Biology**: Complete the Seneca task.	
	Personal choice: Pick **one** of your subjects **(different to Monday)** (this could be one you feel least confident in), and think about a topic you need to revise – perhaps considering your results in recent assessments. Complete a self-planned revision activity using your KO. Look at page 4 to remind you of the best ways to self-quiz**.**	

Year 10 Spring Term 1

You are expected to study the subject(s) shown on your timetable each day. Each day use **one page** of your exercise book to evidence your work.

Date	Subjects and Tasks	Signed by parents/ carers once complete
15/01/2024 Monday	**English Language: KAP revision:** For each of the tier 2 and 3 words, explain how you might link them to each of the questions on the language paper: for example: semantic field wouldn't link to Q3 because you can only discuss structure.	
	Personal choice: Pick **one** of your subjects (this could be one you feel least confident in), and think about a topic you need to revise – perhaps considering your results in recent assessments. Complete a self-planned revision activity using your KO. Look at page 4 to remind you of the best ways to self-quiz**.**	
16/01/2024 Tuesday	**Maths:** Use look, cover, write, check to learn the definitions of following key words. Put them in a sentence or create a maths question/example that explain each of these: ***Simultaneous, Coefficient, Elimination, Substitution.***	
	Option B: See the subject page for Design and Technology, Food Technology, Sociology, History, Health and Social Care and Art.. Classes: 10B/Hi1, 10B/So1, 10B/So2, 10B/DT1, 10B/Fn1, 10B/Hs1, 10B/Ar1	
17/01/2024 Wednesday	**Science: Biology B3 (Section A):** Draw a diagram to represent each key word in the Tier 3 vocabulary list.	
	Option C: See the subject page for Health and Social Care, Sociology, Geography, Sport, DT and PE.. Classes:10C/Hs1, 10C/So1, 10C/Gg1, 10C/St1, 10C/T1, 10C/PE1.	
18/01/2024 Thursday	**English Literature: KAP revision.** Continue your revision from last week but this time try to create a sentence about the poems you have studied using each of the Tier 2 and Tier 3 words.	
	Maths: Sparx Login to Sparx and select either the 'XP boost' or 'Target' tab on the left side. Select a homework week and complete 6 of these questions. Write out the question and the full worked solution. Think about the knowledge that each question is using and highlight this in your book.	
19/01/2024 Friday	**Science: Physics P3 (Section C):** Write the method for finding the density of an irregular shaped object. **Chemistry**: Complete the Seneca task.	
	Personal choice: Pick **one** of your subjects **(different to Monday)** (this could be one you feel least confident in), and think about a topic you need to revise – perhaps considering your results in recent assessments. Complete a self-planned revision activity using your KO. Look at page 4 to remind you of the best ways to self-quiz**.**	

Year 10 Spring Term 1

You are expected to study the subject(s) shown on your timetable each day. Each day use **one page** of your exercise book to evidence your work.

Date	Subjects and Tasks	Signed by parents/ carers once complete
22/01/2024 Monday	**English Language: Write a postmodern short story or description that begins with the line '**"There are some things that are so unforgivable that they make other things easily forgivable.'. Use all of your learning so far from the KO to write from a postmodern viewpoint, include techniques from the **Tier 2 section** of the KO and vocabulary from the **Tier 3 section** of the KO. Try to present your own personal ideas about an area of the **Key Concepts in Section 4.**	
	Personal choice: Pick **<u>one</u>** of your subjects (this could be one you feel least confident in), and think about a topic you need to revise – perhaps considering your results in recent assessments. Complete a self-planned revision activity using your KO. Look at page 4 to remind you of the best ways to self-quiz**.**	
23/01/2024 Tuesday	**Maths::** Create a step-by-step guide showing how to solve the following simultaneous equations by elimination. Use section B to support your working out. **6x + y = 15** **4x + y = 11**	
	Option A: See the subject page for Geography, Computer Science, History or Spanish. Classes: 10A/Gg1, 10A/Gg2, 10A/Co1, 10A/Hi1, 10A/Hi2, 10/Sp1.	
24/01/2024 Wednesday	**Science: Biology B3 (Section A):** Write a paragraph which uses each of the words from the Tier 2 vocabulary in the correct context.	
	RE: Christianity: Living a Christian life – Worship Task 1: In no more than 10 words write a summary for the key terms a) Liturgical and B) Non-liturgical worship Task 2: Identify at least three differences between liturgical and non-liturgical worship.	
25/01/2024 Thursday	**English Literature: Macbeth** You should shortly be moving on to studying Macbeth if you haven't already. Read through the conventions of the Tragic Form in Section 2 and explain how Romeo and Juliet fits into this genre. Use the vocabulary in Section 1 to help you understand the key words 'hamartia' and 'hubristic'.	
	Maths: Sparx Login to Sparx and select either the 'XP boost' or 'Target' tab on the left side. Select a homework week and complete 6 of these questions. Write out the question and the full worked solution. Think about the knowledge that each question is using and highlight this in your book.	
26/01/2024 Friday	**Science: Chemistry C4 (Section B):** 1) Write the word equation and balanced symbol equation for: i) the reaction between lithium and water, ii) The reaction between zinc and dilute hydrochloric acid. 2) A student added a piece of magnesium ribbon to dilute sulphuric acid. i) List three ways she could tell that a chemical reaction was taking place (3 marks) ii) Write down the general equation that described the reaction between a metal and an acid. **Physics**: Complete the Seneca task.	
	Personal choice: Pick **<u>one</u>** of your subjects **<u>(different to Monday)</u>** (this could be one you feel least confident in), and think about a topic you need to revise – perhaps considering your results in recent assessments. Complete a self-planned revision activity using your KO. Look at page 4 to remind you of the best ways to self-quiz**.**	

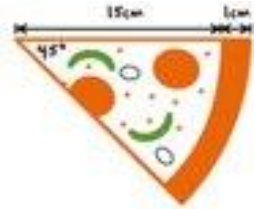
Year 10 Spring Term 1

You are expected to study the subject(s) shown on your timetable each day. Each day use **one page** of your exercise book to evidence your work.

Date	Subjects and Tasks	Signed by parents/ carers once complete
29/01/2024 Monday	**English Language: Review your three short stories/descriptions from so far this term.** Create 2 columns in your KO book, under **Success** write what you think you've done well, e.g. vocabulary, devices from section 3, creative ideas, getting your ideas about the key concepts across to a reader. Under **Next time** bulletpoint what you need to work on to improve if you were to try and do this writing again.	
	Personal choice: Pick **one** of your subjects (this could be one you feel least confident in), and think about a topic you need to revise – perhaps considering your results in recent assessments. Complete a self-planned revision activity using your KO. Look at page 4 to remind you of the best ways to self-quiz**.**	
30/01/2024 Tuesday	**Maths:** **Foundation:** Explain how we find the area and circumference of a circle by writing two worked examples. Explain the similarities and differences in the formulas used, information used and units used (Section B). **Higher:** What other mathematical formula does the equation of a circle link to (Section B)? Draw a diagram showing and explaining this connection.	
	Option B: See the subject page for Design and Technology, Food Technology, Sociology, History, Health and Social Care and Art.. Classes: 10B/Hi1, 10B/So1, 10B/So2, 10B/DT1, 10B/Fn1, 10B/Hs1, 10B/Ar1	
31/01/2024 Wednesday	**Science: Chemistry C4 (Section B):** Zinc reacts with copper oxide to form zinc oxide and copper. 1) Write a balanced symbol and word equation for the reaction.(1 mark) 2) Explain, in terms of oxygen, why this is a redox reaction. (4 marks) 3) Write the definition of reduction in terms of electrons.(2 marks)	
	Option C: See the subject page for Health and Social Care, Sociology, Geography, Sport, DT and PE.. Classes:10C/Hs1, 10C/So1, 10C/Gg1, 10C/St1, 10C/T1, 10C/PE1.	
01/02/2024 Thursday	**English Literature:** Read the Tier 3 vocabulary and create a Frayer diagram for each word. When giving an example of the word try to link it to a text that you have already studied in Years 7, 8, 9 and 10.	
	Maths: Sparx Login to Sparx and select either the 'XP boost' or 'Target' tab on the left side. Select a homework week and complete 6 of these questions. Write out the question and the full worked solution. Think about the knowledge that each question is using and highlight this in your book.	
02/02/2024 Friday	**Science: Physics P3 (Section B):** How does a substance change state? What happens to the particles, in terms of energy? **Biology:** Complete the Seneca task.	
	Personal choice: Pick **one** of your subjects **(different to Monday)** (this could be one you feel least confident in), and think about a topic you need to revise – perhaps considering your results in recent assessments. Complete a self-planned revision activity using your KO. Look at page 4 to remind you of the best ways to self-quiz**.**	

Year 10 Spring Term 1

You are expected to study the subject(s) shown on your timetable each day. Each day use **one page** of your exercise book to evidence your work.

Date	Subjects and Tasks	Signed by parents/ carers once complete
05/02/2024 Monday	**English Language: Write a postmodern short story or description that is entitled ‘**‘You need to know where you’ve been to know where you’re going.’ Use all of your learning so far from the KO to write from a postmodern viewpoint, include techniques from the **Tier 2 section** of the KO and vocabulary from the **Tier 3 section** of the KO. Try to present your own personal ideas about an area of the **Key Concepts in Section 4. Focus on improvement based on your targets from your review.**	
	Personal choice: Pick **<u>one</u>** of your subjects (this could be one you feel least confident in), and think about a topic you need to revise – perhaps considering your results in recent assessments. Complete a self-planned revision activity using your KO. Look at page 4 to remind you of the best ways to self-quiz**.**	
06/02/2024 Tuesday	**Maths:** **Foundation:** Zu eats this slice of pizza but leaves the crust. A) work out the area of pizza he eats. B) Work out the area of pizza he leaves Ensure you show full workings and explain your solution clearly. **Higher:** Create flash cards for each of the circle theorems. Use numerical examples and the key terminology on your cards 	
	Option A: See the subject page for Geography, Computer Science, History or Spanish. Classes: 10A/Gg1, 10A/Gg2, 10A/Co1, 10A/Hi1, 10A/Hi2, 10/Sp1.	
07/02/2024 Wednesday	**Science: Biology B3 (Section C):** Draw the outline of a body and label ways that the body prevents pathogens from entering.	
	RE: Christianity: Living a Christian life – Worship Task 1: Explain what informal worship is in Christianity. Include at least two examples in your answer. Try to use the words **because, but**, and **so.** Task 2: Give two reasons why different types of worship are used by Christians.	
08/02/2024 Thursday	**English Literature:** Write a summary explaining your impressions of Macbeth in the play so far. You must use at least 3 words in the key vocabulary list in your explanation.	
	Maths: Sparx Login to Sparx and select either the 'XP boost' or 'Target' tab on the left side. Select a homework week and complete 6 of these questions. Write out the question and the full worked solution. Think about the knowledge that each question is using and highlight this in your book.	
09/02/2024 Friday	**Science: Physics P3 (Section B):** On a heating curve, what is happening to the substance when the line is flat? What is happening to the particles? **Chemistry**: Complete the Seneca task.	
	Personal choice: Pick **<u>one</u>** of your subjects **<u>(different to Monday)</u>** (this could be one you feel least confident in), and think about a topic you need to revise – perhaps considering your results in recent assessments. Complete a self-planned revision activity using your KO. Look at page 4 to remind you of the best ways to self-quiz**.**	

Year 10 Spring Term 2

You are expected to study the subject(s) shown on your timetable each day. Each day use **one page** of your exercise book to evidence your work.

Date	Subjects and Tasks	Signed by parents/ carers once complete
19/02/2024 Monday	**English Language: Tier 3 Vocabulary:** Look at the definition of an anecdote and the example. Write an anecdotal opening to a speech with the title 'Technology has changed childhood forever'.	
	Personal choice: Pick **<u>one</u>** of your subjects (this could be one you feel least confident in), and think about a topic you need to revise – perhaps considering your results in recent assessments. Complete a self-planned revision activity using your KO. Look at page 4 to remind you of the best ways to self-quiz**.**	
20/02/2024 Tuesday	**Maths: Task 1.** One of these calculations is in standard form. Identify which one it is. Then write sentences explaining why the others are not standard form. 32.2×10^2 $3.2 \div 10^2$ 3.2×10^2 0.032×10^2 10×10^2 **Task 2.** Write these numbers in standard form. a) 45000 b) 3710000 c) 0.008 d)0.000975	
	Option B: See the subject page for Design and Technology, Food Technology, Sociology, History, Health and Social Care and Art.. Classes: 10B/Hi1, 10B/So1, 10B/So2, 10B/DT1, 10B/Fn1, 10B/Hs1, 10B/Ar1	
21/02/2024 Wednesday	**Science: Biology B3 (Section C):** There are three processes that white blood cells are involved in for the prevention of disease. Make three flow charts that show these processes (engulfing, antibodies, anti-toxins).	
	Option C: See the subject page for Health and Social Care, Sociology, Geography, Sport, DT and PE.. Classes:10C/Hs1, 10C/So1, 10C/Gg1, 10C/St1, 10C/T1, 10C/PE1.	
22/02/2024 Thursday	**English Literature:** Read through the information on fate and ambition and hierarchy in Section 2. Explain how we can link the themes of fate and ambition to the play so far.	
	Maths: Sparx Login to Sparx and select either the 'XP boost' or 'Target' tab on the left side. Select a homework week and complete 6 of these questions. Write out the question and the full worked solution. Think about the knowledge that each question is using and highlight this in your book.	
23/02/2024 Friday	1. **Science: Chemistry C4 (Section C):** Why is gold found as the metal rather than combined with other elements in compound? 2. Platinum is found in its native state. What does this tell you about its reactivity. Give a use of platinum that depends on this chemical property.3)Write a word equation and balanced symbol equation for the reduction of zinc oxide by carbon in the furnace, labelling what is reduced and what is oxidised. **Physics:** Complete the Seneca task.	
	Personal choice: Pick **<u>one</u>** of your subjects **<u>(different to Monday)</u>** (this could be one you feel least confident in), and think about a topic you need to revise – perhaps considering your results in recent assessments. Complete a self-planned revision activity using your KO. Look at page 4 to remind you of the best ways to self-quiz**.**	

Year 10 Spring Term 2

You are expected to study the subject(s) shown on your timetable each day. Each day use **one page** of your exercise book to evidence your work.

Date	Subjects and Tasks	Signed by parents/ carers once complete
26/02/2024 Monday	**English Language: Section 2 Key Knowledge:** Use the planning structure at the bottom, and the information to recap ethos, logos and pathos to plan a speech about climate change.	
	Personal choice: Pick **one** of your subjects (this could be one you feel least confident in), and think about a topic you need to revise – perhaps considering your results in recent assessments. Complete a self-planned revision activity using your KO. Look at page 4 to remind you of the best ways to self-quiz**.**	
27/02/2024 Tuesday	**Maths: Task 1.** For each of the following words use it in a sentence or create a maths question with a fully annotated worked solution: ***Density, Volume*** and ***Mass*** **Task 2.** Search 'Which careers use the properties of **density**?'. Choose a career. Find out how this topic relates to it. Use your findings to create a poster.	
	Option A: See the subject page for Geography, Computer Science, History or Spanish. Classes: 10A/Gg1, 10A/Gg2, 10A/Co1, 10A/Hi1, 10A/Hi2, 10/Sp1.	
28/02/2024 Wednesday	**1) Science: Chemistry C4 (Section B):** Write the general equation for the reaction between an acid and a metal. 2) Write a word and balanced symbol equation. Including state symbols for: i) Iron + Sulphuric acid. ii) Zinc + hydrochloric acid.	
	RE: Living the Christian life – Sacraments **Task 1:** Create a set of flashcards to help you learn five Tier 3 vocabulary. **Task 2**: Using these five key words, create five questions where the key word is the answer.	
29/02/2024 Thursday	**English Literature:** Return to the information on tragedy in Section 2 that you looked at a few lessons ago. How does Macbeth adhere to this genre so far? Write a paragraph to explain your answer.	
	Maths: Sparx Login to Sparx and select either the 'XP boost' or 'Target' tab on the left side. Select a homework week and complete 6 of these questions. Write out the question and the full worked solution. Think about the knowledge that each question is using and highlight this in your book.	
01/03/2024 Friday	**Science: Physics P3 (Section A):** Describe the difference between specific latent heat and specific heat capacity, include units for each. State the two types of internal energy and what affects them. **Biology:** Complete the Seneca task.	
	Personal choice: Pick **one** of your subjects **(different to Monday)** (this could be one you feel least confident in), and think about a topic you need to revise – perhaps considering your results in recent assessments. Complete a self-planned revision activity using your KO. Look at page 4 to remind you of the best ways to self-quiz**.**	

Year 10 Spring Term 2

You are expected to study the subject(s) shown on your timetable each day. Each day use **one page** of your exercise book to evidence your work.

Date	Subjects and Tasks	Signed by parents/ carers once complete
04/03/2024 Monday	**English Language: Section 3:** Create a spider-diagram annotating how mental health connects with as many of the sub-headings in the image as possible e.g. historical, geographical, gender	
	Personal choice: Pick **one** of your subjects (this could be one you feel least confident in), and think about a topic you need to revise – perhaps considering your results in recent assessments. Complete a self-planned revision activity using your KO. Look at page 4 to remind you of the best ways to self-quiz**.**	
05/03/2024 Tuesday	**Maths: Task 1.** For each of the following words use it in a sentence or create a maths question with a fully annotated worked solution: ***Pressure, Force*** and ***Area*** **Task 2.** a) An object is placed on the ground and exerts a force of 3000N on an area of $3m^2$. Calculate the pressure. b) The area of contact is $1.5m^2$ and the pressure exerted is $4000N/m^2$. Calculate the force.	
	Option B: See the subject page for Design and Technology, Food Technology, Sociology, History, Health and Social Care and Art.. Classes: 10B/Hi1, 10B/So1, 10B/So2, 10B/DT1, 10B/Fn1, 10B/Hs1, 10B/Ar1	
06/03/2024 Wednesday	**Science: Biology B3 (Section B):** Turn the drug development flow chart into a comic strip.	
	Option C: See the subject page for Health and Social Care, Sociology, Geography, Sport, DT and PE.. Classes:10C/Hs1, 10C/So1, 10C/Gg1, 10C/St1, 10C/T1, 10C/PE1.	
07/03/2024 Thursday	**English Literature: Answer the following questions that incorporate your Tier 2 and Tier 3 vocabulary.** 1. How could we argue that Duncan is a **foil** to Macbeth? 2. Who is more **machiavellian** and why: Macbeth or Lady Macbeth? 3. Which of Macbeth's **soliloquys** has been the most significant to the story in your opinion?	
	Maths: Sparx Login to Sparx and select either the 'XP boost' or 'Target' tab on the left side. Select a homework week and complete 6 of these questions. Write out the question and the full worked solution. Think about the knowledge that each question is using and highlight this in your book.	
08/03/2024 Friday	**Science: Physics Waves (Section A):):** Learn the spellings and the definitions of the Tier 3 vocabulary words. Do this using Look, Cover, Write, Check and Correct. **Chemistry:** Complete the Seneca task.	
	Personal choice: Pick **one** of your subjects **(different to Monday)** (this could be one you feel least confident in), and think about a topic you need to revise – perhaps considering your results in recent assessments. Complete a self-planned revision activity using your KO. Look at page 4 to remind you of the best ways to self-quiz**.**	

Year 10 Spring Term 2

You are expected to study the subject(s) shown on your timetable each day. Each day use **one page** of your exercise book to evidence your work.

Date	Subjects and Tasks	Signed by parents/ carers once complete
11/03/2024 Monday	**English Language: Tier 3 Vocabulary:** Create flashcards for the key terminology. Cover, test and check your understanding of these terms.	
	Personal choice: Pick **one** of your subjects (this could be one you feel least confident in), and think about a topic you need to revise – perhaps considering your results in recent assessments. Complete a self-planned revision activity using your KO. Look at page 4 to remind you of the best ways to self-quiz**.**	
12/03/2024 Tuesday	**Maths: Task 1.** For each of the following words use it in a sentence or create a maths question with a fully annotated worked solution: ***Speed, Distance*** and ***Time*** **Task 2.** a) A car drives 120 miles in 2 hours. Calculate the average speed in mph. b) A car drives 120 miles in 2 hours 30 minutes. Calculate the average speed in mph.	
	Option A: See the subject page for Geography, Computer Science, History or Spanish. Classes: 10A/Gg1, 10A/Gg2, 10A/Co1, 10A/Hi1, 10A/Hi2, 10/Sp1.	
13/03/2024 Wednesday	**Science: Biology B4 (Section A):** Spend 10 minutes trying to learn the key words and their definition for the tier 3 vocabulary. Then copy them out jumbled up and use your memory to link them correctly.	
	RE: Living the Christian life – Sacraments **Task 1: Read Section B: Baptism. List at least three similarities and three differences between Infant baptism and Adult/believers baptism.** **Task 2: In your opinion should people be baptised as infants or as adults? Give reasons for your answer**	
14/03/2024 Thursday	**English Literature:** In Section 3 we have explained how the key themes are demonstrated in the play itself. Read through the first section. Can you record three more examples of Macbeth's overreaching ambition in the play so far?	
	Maths: Sparx Login to Sparx and select either the 'XP boost' or 'Target' tab on the left side. Select a homework week and complete 6 of these questions. Write out the question and the full worked solution. Think about the knowledge that each question is using and highlight this in your book.	
15/03/2024 Friday	**Science: Chemistry C5 (Section B):** Copy the reaction profile diagram for an exothermic reaction from section B, including all labels. Label the parts that are linked to bonds breaking in the reactants, and also bonds forming in the products. Give three examples of common exothermic reactions (you may use the internet to conduct your research) **Physics:** Complete the Seneca task.	
	Personal choice: Pick **one** of your subjects **(different to Monday)** (this could be one you feel least confident in), and think about a topic you need to revise – perhaps considering your results in recent assessments. Complete a self-planned revision activity using your KO. Look at page 4 to remind you of the best ways to self-quiz**.**	

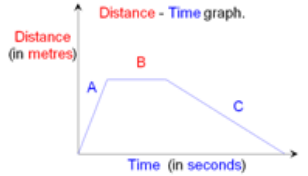
Year 10 Spring Term 2

You are expected to study the subject(s) shown on your timetable each day. Each day use **one page** of your exercise book to evidence your work.

Date	Subjects and Tasks	Signed by parents/ carers once complete
18/03/2024 Monday	**English Language: Section 3: Key Connections:** Use the plan for the speech on education on your KO and begin writing out the ideas for the speech in the most effective way – try use anecdotes , metaphor and symbolism.	
	Personal choice: Pick **one** of your subjects (this could be one you feel least confident in), and think about a topic you need to revise – perhaps considering your results in recent assessments. Complete a self-planned revision activity using your KO. Look at page 4 to remind you of the best ways to self-quiz**.**	
19/03/2024 Tuesday	**Maths:** T**ask 1.** Search 'Which careers use the properties of **kinematics**?'. Choose a career and research it. Use your findings to create a poster. **Task 2.** A piece of wood has a mass of 7g and a volume of 10cm^3. Work out the **density** and state the units.	
	Option B: See the subject page for Design and Technology, Food Technology, Sociology, History, Health and Social Care and Art.. Classes: 10B/Hi1, 10B/So1, 10B/So2, 10B/DT1, 10B/Fn1, 10B/Hs1, 10B/Ar1	
20/03/2024 Wednesday	**Science: Chemistry C5 (Section C):** You have been asked to investigate whether the following chemical reaction is exothermic or endothermic: Magnesium + hydrochloric acid → magnesium chloride + hydrogen Write a method, including a diagram, for the experiment you would carry out in this investigation.	
	Option C: See the subject page for Health and Social Care, Sociology, Geography, Sport, DT and PE.. Classes:10C/Hs1, 10C/So1, 10C/Gg1, 10C/St1, 10C/T1, 10C/PE1.	
21/03/2024 Thursday	**English Literature:** In Section 3 I have given you some examples of how The Divine Right of Kings is shown in the play itself. Answer the following question using your knowledge of the play and your KO: What is Shakespeare suggesting about Kingship in the play?	
	Maths: Sparx Login to Sparx and select either the 'XP boost' or 'Target' tab on the left side. Select a homework week and complete 6 of these questions. Write out the question and the full worked solution. Think about the knowledge that each question is using and highlight this in your book.	
22/03/2024 Friday	**Science: Physics Waves (Section B):** Explain the differences between transverse and longitudinal waves. Use diagrams to explain your answer. **Biology:** Complete the Seneca task.	
	Personal choice: Pick **one** of your subjects **(different to Monday)** (this could be one you feel least confident in), and think about a topic you need to revise – perhaps considering your results in recent assessments. Complete a self-planned revision activity using your KO. Look at page 4 to remind you of the best ways to self-quiz**.**	

Year 10 Spring Term 2

You are expected to study the subject(s) shown on your timetable each day. Each day use **one page** of your exercise book to evidence your work.

Date	Subjects and Tasks	Signed by parents/ carers once complete
25/03/2024 Monday	**English Language: Tier 2 Vocabulary:** Create flashcards for the key terminology. Cover, test and check your understanding of these terms. How do the words 'convincing' and 'compelling' link to the mark-scheme for Question 5?	
	Personal choice: Pick **<u>one</u>** of your subjects (this could be one you feel least confident in), and think about a topic you need to revise – perhaps considering your results in recent assessments. Complete a self-planned revision activity using your KO. Look at page 4 to remind you of the best ways to self-quiz**.**	
26/03/2024 Tuesday	**Maths:** **Task 1:** At which part of the graph is the object stationary? Which part shows constant speed back to origin? **Task 2.** Create a story about an object or a person moving that matches the graph.  	
	Option A: See the subject page for Geography, Computer Science, History or Spanish. Classes: 10A/Gg1, 10A/Gg2, 10A/Co1, 10A/Hi1, 10A/Hi2, 10/Sp1.	
27/03/2024 Wednesday	**Science: Biology B4 (Section C):** Write a method to show how you would investigate how changing light intensity affects the rate of photosynthesis (rate of oxygen production). You can use the diagram to help you	
	RE: Living the Christian life – Sacraments **Task 1:** Create a set of five questions and their answers using the information from section C about **Holy Communion.** Leave these questions for a couple of days then ask a family member to test you on them. **Task 2:** Why are baptism and Holy Communion the only two sacraments observed by the Protestant Church?	
28/03/2024 Thursday	**English Literature:** Use all of your knowledge of the play so far to explain your view on the following question in your KO: **Is Macbeth destined to die at the end of the play or is he a product of his own greed and decision making?**	
	Maths: Sparx Login to Sparx and select either the 'XP boost' or 'Target' tab on the left side. Select a homework week and complete 6 of these questions. Write out the question and the full worked solution. Think about the knowledge that each question is using and highlight this in your book.	
29/03/2024 Friday	**Science: Physics Waves (Section C):** Draw and label the Electromagnetic Spectrum. Write a mnemonic to help you remember the order of it. **Chemistry:** Complete the Seneca task.	
	Personal choice: Pick **<u>one</u>** of your subjects **<u>(different to Monday)</u>** (this could be one you feel least confident in), and think about a topic you need to revise – perhaps considering your results in recent assessments. Complete a self-planned revision activity using your KO. Look at page 4 to remind you of the best ways to self-quiz**.**	

Reading Log

Use this reading log to record how long you have spent reading each week.

Week starting	Mon	Tues	Weds	Thurs	Fri	Sat	Sun	Total no. of minutes read	Bedrock lesson complete?	Parent/Carer Signature
08/01/2024										
15/01/2024										
22/01/2024										
29/01/2024										
05/02/2024										
19/02/2024										
26/02/2024										
04/03/2024										
11/03/2024										
18/03/2024										
25/03/2024										

'The more that you read, the more things you will know.
The more that you learn, the more places you'll go.'

The Periodic Table of Elements

1	2										3	4	5	6	7	0
							1 **H** hydrogen 1									4 **He** helium 2
7 **Li** lithium 3	9 **Be** beryllium 4										11 **B** boron 5	12 **C** carbon 6	14 **N** nitrogen 7	16 **O** oxygen 8	19 **F** fluorine 9	20 **Ne** neon 10
23 **Na** sodium 11	24 **Mg** magnesium 12										27 **Al** aluminium 13	28 **Si** silicon 14	31 **P** phosphorus 15	32 **S** sulfur 16	35.5 **Cl** chlorine 17	40 **Ar** argon 18
39 **K** potassium 19	40 **Ca** calcium 20	45 **Sc** scandium 21	48 **Ti** titanium 22	51 **V** vanadium 23	52 **Cr** chromium 24	55 **Mn** manganese 25	56 **Fe** iron 26	59 **Co** cobalt 27	59 **Ni** nickel 28	63.5 **Cu** copper 29	65 **Zn** zinc 30	70 **Ga** gallium 31	73 **Ge** germanium 32	75 **As** arsenic 33	79 **Se** selenium 34	80 **Br** bromine 35	84 **Kr** krypton 36
85 **Rb** rubidium 37	88 **Sr** strontium 38	89 **Y** yttrium 39	91 **Zr** zirconium 40	93 **Nb** niobium 41	96 **Mo** molybdenum 42	[98] **Tc** technetium 43	101 **Ru** ruthenium 44	103 **Rh** rhodium 45	106 **Pd** palladium 46	108 **Ag** silver 47	112 **Cd** cadmium 48	115 **In** indium 49	119 **Sn** tin 50	122 **Sb** antimony 51	128 **Te** tellurium 52	127 **I** iodine 53	131 **Xe** xenon 54
133 **Cs** caesium 55	137 **Ba** barium 56	139 **La*** lanthanum 57	178 **Hf** hafnium 72	181 **Ta** tantalum 73	184 **W** tungsten 74	186 **Re** rhenium 75	190 **Os** osmium 76	192 **Ir** iridium 77	195 **Pt** platinum 78	197 **Au** gold 79	201 **Hg** mercury 80	204 **Tl** thallium 81	207 **Pb** lead 82	209 **Bi** bismuth 83	[209] **Po** polonium 84	[210] **At** astatine 85	[222] **Rn** radon 86
[223] **Fr** francium 87	[226] **Ra** radium 88	[227] **Ac*** actinium 89	[261] **Rf** rutherfordium 104	[262] **Db** dubnium 105	[266] **Sg** seaborgium 106	[264] **Bh** bohrium 107	[277] **Hs** hassium 108	[268] **Mt** meitnerium 109	[271] **Ds** darmstadtium 110	[272] **Rg** roentgenium 111	[285] **Cn** copernicium 112	[286] **Nh** nihonium 113	[289] **Fl** flerovium 114	[289] **Mc** moscovium 115	[293] **Lv** livermorium 116	[294] **Ts** tennessine 117	[294] **Og** oganesson 118

Key

relative atomic mass
atomic symbol
name
atomic (proton) number

English Language—Year 10 Spring Term 1—Post-war and Postmodern Fiction

Bluecoat Wollaton
believe in yourself, in others, in God

Section 1: Key vocabulary

Tier 3 Vocab	Definition
Allusion (n)	An expression designed to call something to mind without mentioning it explicitly; an indirect or passing reference
Pastiche (n)	An artistic work in a style that imitates that of another work, artist, or period.
Satire (n)	The use of humour, irony, exaggeration, or ridicule to expose and criticize people's stupidity, particularly in the context of politics and other
Previously seen subject terminology	
Metaphor	Symbolism
Sensory language	Semantic Field
Tier 2 Vocabulary	**Definition**
Colonialism (post-colonialism) (n)	When a country occupies and gains full or partial control over another country, often exploiting the colonized country's resources
Circumnavigate (v)	Sail or travel all the way around (something, especially the world).
Contemporary (adj)	Living or occurring at the same time.
Indigenous (adj)	Originating or occurring naturally in a particular place; native.
Irascible (adj)	Having or showing a tendency to be easily angered.
Epoch (n)	A particular period of time in history or a person's life.

Section 2: Key Context & Literary Heritage

Ancient Myths have helped to form the basis of much western literature and are frequently alluded to throughout the ages

The **Elizabethan (**1558-1603) & **Jacobean** era was a very important era for theatre and poetry. Shakespeare is a key writer of tragedy and comedy as well as many sonnets

The Enlightenment (around 1685-1815) built upon the science of the previous Renaissance period. Emphasis was placed on reason, logic & science in writing and philosophy.

The Romantic era (around 1780—1850) was a movement against the logic of the Enlightenment and also a warning against the growing industrialisation of Britain. Romanticism emphasised the intense and often irrational emotions of the individual, and celebrated the natural world.

The British Empire began in the 16th century, but the Industrial Revolution of the 19th century saw it expand massively as resources were exploited and used to build Britain's wealth. Many writers including Kipling are influenced by colonialism

WW1 (1914-18) brought seismic changes to society and this was reflected in literature with the formation of Modernist writing. This was a break from traditions that had come before, seeking a new way to express the horror and grief of the war. **WW2** (1939-45) sparked a wave of dystopian/ political novels in the wake of fascism across Europe. It also brought the rise of the postmodern movement.

Dystopian Fiction was and is a seminal movement ushered in by the world wars in the early 20th century. It warns against totalitarianism and certain political ideologies.

Post-war and post-modern literature is a far-reaching genre, which encompasses allusions to previous literary movements , writing from different cultures as well as reviewing past events with feminist or post-colonial viewpoints. It looks back over, critiques and adapts all of the contexts and ideas from literary history seen in this timeline.

Modernism

Modernism emerged around the time of the second industrial revolution (1870-1920), which was marked by the decline of stable social classes, the beginning of professionalism, and a sense of urban alienation. It was strengthened Post-WW1 by a new wave introspective narratives and Woolf's stream of consciousness. It considered mental health and was concerned with more liberated narratives.

Postmodernism

Postmodernism generally refers to cultural phenomena that emerged after the Second World War. When exactly postmodernism starts vary according to national contexts and individual critics. Postmodernity: the period after modernity.

Whereas modernism focuses on interiority and psychological, postmodernism recovers the preoccupation with the external and the construction of worlds. Postmodernism uses pastiche, black humour, and parody in order to contest traditional literary conventions.

Section 3: Key Quotes

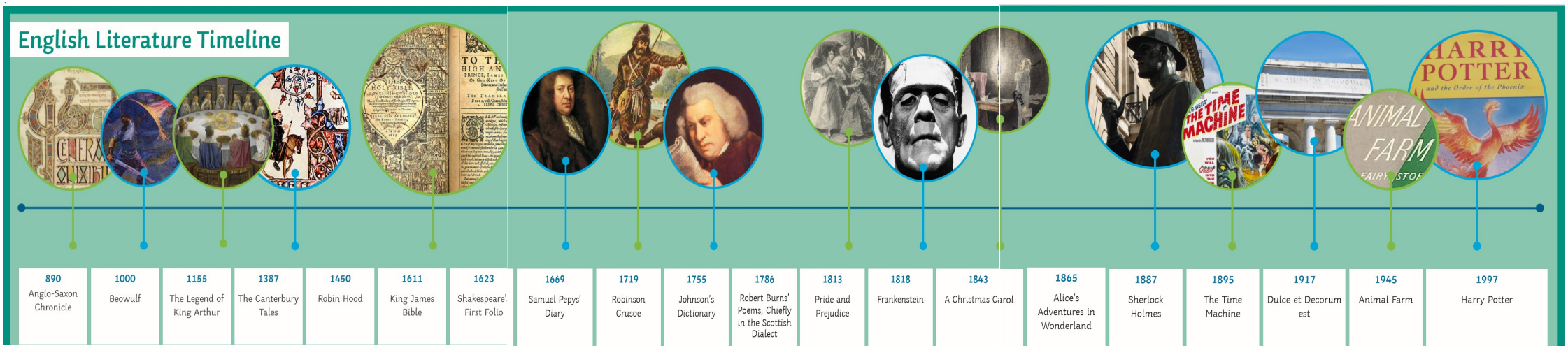
'Power tends to corrupt, and absolute power corrupts absolutely '

"This is our world, although the people who drew this map decided to put their own land on top of ours. There

"There are some things that are so unforgivable that they make other things easily forgivable."

'You need to know where you've been to know where you're going.'

'There are no villains here—there are only people who accept their circumstances and learn to live with them.'



Section 4: Questions

These are the questions which will come up in the exam.

Question 1: **Identify four explicit pieces of information from the text.**	**Question 2:** **How has the writer used language?** **Define, imply, impact**
Question 3: **How has the writer used structure?** **Focus, reference, effect, why link**	**Question 4:** **Evaluating a statement.** **What, how, why**
Question 5—AO5 **Content and Organisation** **Sentence structures** **Vocabulary** **Drop, shift, zoom, link**	**Question 5—AO6** **Technical Accuracy** **Spelling** **Punctuation** **Vocabulary**

Section 4 cont: Key Concepts

The concepts highlighted are focused on in this unit.

AMBITION	BELONGING	OPPRESSION	HOPE
IDENTITY	ANTITHESIS	PREJUDICE	REVOLUTION
INEVITABILITY	GENDER	DECEPTION	LOSS
HIERARCHY	LOVE	CONFLICT	PERCEPTION
POWER	ADVERSITY	REDEMPTION	HUBRIS
LOYALTY	EXPLOITATION	MORALITY	ALLUSION

Section 5: Previous and Future Learning

Previous important learning	
Dracula (Y8)	Literature reflecting the anxieties of society
Jungle Book (Y8)	Literature considering the impact of colonialism and the way it shapes our identity.
Perspectives (Y9)	How different perspectives are shared through literature
AIC (Y9)	Literature reflecting political and socio-economic concerns of society
Future important learning	
Expressing	How do people in society share their voices?
Paper 1 (Y11)	Reading and understanding writers' intentions

Year 10 English Literature – Macbeth– Knowledge Organiser

BWA

Section 1: Key Vocabulary

Tier 3	Definition	Example/image
Epithet	An adjective or phrase expressing a quality or attribute regarded as characteristic of the person mentioned.	*The Captain uses the epithet 'Brave Macbeth' when explaining his bravery in battle.*
Foil	A literary foil is a character whose purpose is to accentuate or draw attention to the qualities of another character.	*Banquo is a foil to Macbeth as he is dubious and fearful of the witches, unlike Macbeth.*
Paradox	A statement that is seemingly contradictory.	*The witches speak in paradox throughout the play.*
Soliloquy	A character speaking their thoughts aloud on the stage, usually when alone.	*Macbeth asks 'is this a dagger I see before me' in his soliloquy.*
Tier 2	**Definition**	**Example/image**
Hamartia	The fatal character flaw of a tragic hero.	*Macbeth's hamartia is his ambition for power.*
Hubris	An excess of pride (over arrogance).	*Macbeth becomes more hubristic after hearing the witch's prophecies.*
Equivocation	The use of ambiguous language to conceal the truth.	*Lady Macbeth uses equivocation when Duncan arrives at the castle.*
Machiavellian	Sneaky, cunning and lacking a moral code.	*Lady Macbeth displays her Machiavellian nature after reading Macbeth's letter.*

Section 2: Key Knowledge

The Tragic form

Shakespeare is well known for his tragedies, all of which follow a series of tragic conventions:

1. They feature a Tragic Hero-a main character cursed by fate and possessed of a tragic flaw.
2. The fatal character flaw of the Tragic Hero is known as their hamartia.
3. The Tragic Hero will undergo a period of internal conflict where they battle their fatal flaw.
4. Tragic Heroes are often hubristic.
5. There will be a dichotomy of good and evil.
6. The audience will undergo a state of catharsis (the process of releasing strong emotions)

Fate or free will?

Fate is also regarded as a central component in tragedy. The significant role of fate is recognized when, despite a character's heroic acts and good intentions, they face death simply because they are doomed to die. We have to ask ourselves whether Macbeth is destined to die at the end, or whether he is a product of his own greed and decisions.

Ambition and hierarchy

The 'Divine Right of Kings' thought that kings were appointed directly to the throne by God, and that they therefore had divine protection. Kings were the most powerful of humans according to the Great Chain of Being. To kill a king, or to challenge his rule, was to disrupt that order and the natural balance.

Section 3: Key Connections

Macbeth's first words in the play mirror the language of the witches. He tells us that it is a '**foul and fair**' day and this immediately connects him to the supernatural.

In the play Macbeth describes his ambition as '**vaulting**' meaning 'overreaching' suggesting that this is his hamartia.

Macbeth battles his feelings of greed, stating to Lady Macbeth that they '**will proceed no further in this business**.' After the murder he battles feelings of guilt telling us that '**all of Neptune's ocean**' cannot cleanse him of his sin.

As the play develops so does Macbeth's hubris and he feels invincible after the witch's prophecy that no '**man born of woman**' can harm him.

The audience feel catharsis at the end of the play when **'this dead butcher's**' power is taken.

The witch's prophecy of becoming '**Thane of Cawdor**' comes true for Macbeth in Act 1 but he then takes the murder of King Duncan into his own hands after seeing a '**dagger**' before him. Is his future the result of fate, a consequence of Lady Macbeth's manipulation or the result of his own greed?

King Duncan's skin and blood is '**golden**' and '**silver**' highlighting his divinity and after murdering Duncan the natural world is thrown into chaos and even the King's

horses '**eat**' one another.

Natural order is restored at the end of the play

when the true heir: Malcom, becomes King.

Year 10 – Power and Conflict poetry– Knowledge Organiser

BWA

Section 1: Key Vocabulary

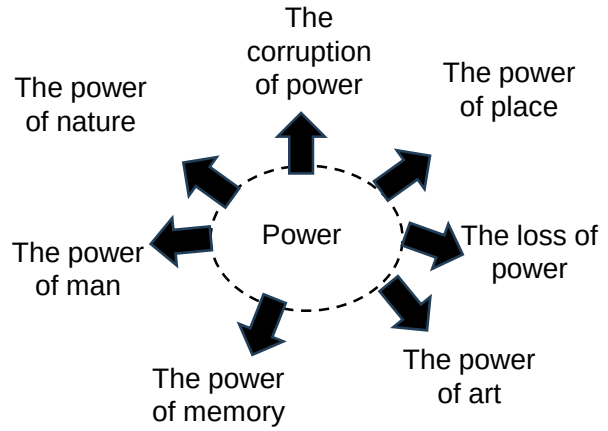
Tier 3	Definition	Example/image
Stanza	A group of lines in a poem.	*The poets organise their stanzas in different ways. Eg: Blake uses four line stanzas (quatrains)*
Meter	The rhythm (pattern of beats) in a poem.	*A poet experiments with meter to add meaning to their poems.*
Enjambment	The continuation of a sentence across lines.	*We see enjambment in 'Remains' to highlight the ongoing memory of conflict.*
Caesura	The deliberate use of punctuation before the end of a line.	*Shelley uses caesura to create a long pause in Ozymandias.*
Allusion	An implied or indirect reference to a person, event, or thing or to a part of another text.	*Duffy alludes to the bible when she writes 'all flesh is grass.'*
Tier 2	**Definition**	**Example/image**
Patriotic	A strong love for your country.	*The speaker in Bayonet Charge questions their own feelings of patriotism.*
Corrupt	The abuse of a position of power.	*Blake accuses the 'blackening church' of being corrupt in 'London'.*
Desensitised	To no longer feel strong emotions because you have been exposed to something often.	*The soldiers in 'Remains' have clearly become desensitised to war.*
Transient	Temporary and fleeting.	*Ozymandias' power is transient.*
Sublime	Greatness beyond measure.	*Wordsworth highlights the sublime power of nature in The Prelude.*

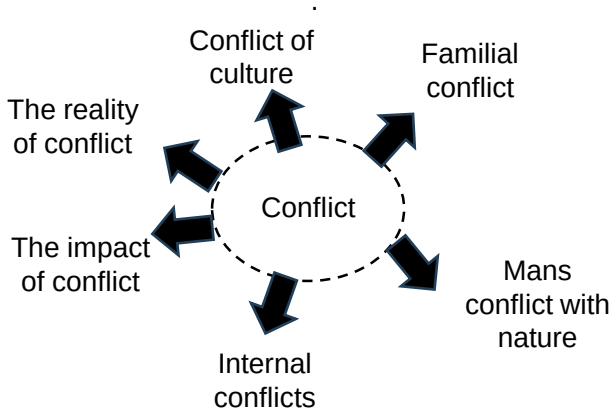
Section 2: Key Knowledge

London	An observer details the corruption and poverty they see and encourage rebellion.
Ozymandias	The statue is a metaphor for the temporary nature of human power.
My Last Duchess	A powerful Duke boasts of his power teaching us the danger of hubris in society.
Charge of the Light Brigade	Tennyson criticises those in power during conflict but encourages us to remember the honour of those who fought.
The Emigree	The speaker reminisces over their homeland and feels marginalised in their new country.
Tissue	This poem discusses how fragile human power is.
Checking Out Me History	The speaker is critical of our education system and the way it discards the voices of many cultures.
Kamikaze	The speaker aborts his mission and is shunned, showing the lasting impact of war.
Storm on the Island	Nature's power is demonstrated in this poem but we could also see it as a metaphor for wider conflict.
The Prelude	A poem about the almighty power of nature and its lasting impact.
War Photographer	The poem highlights the ways we have become desensitised to war.
Remains	The speaker struggles to process the trauma of war and suffers from PTSD.
Poppies	A mother mourns the loss of her son to conflict.
Bayonet Charge	The soldier begins to question the reason he went to war, forcing us to question the idea of patriotism.
Exposure	Owen highlights the monotony of war and also the real enemy: nature.

Section 3: Key Connections

Whilst the name of the anthology of poems is 'Power and Conflict' we need to dig down and think specifically about what aspect of these themes each poem is about.





Lesson resources

QR Code

Y10– English Language Paper 2 – Knowledge Organiser

BWA

Section 1: Key Vocabulary

Tier 3	Definition	Example/image
Symbolism	An image used to represent something greater.	*A poppy is a symbol used to remember the sacrifice of fallen soldiers.*
Anecdote	A short personal story.	*It may begin 'when I was younger, I was told….'*
Rhetoric	The skill of using language effectively to persuade.	*In election campaigns, politicians will carefully craft speeches using rhetorical devices*
Extended Metaphor	A metaphor (comparison) which continues over multiple lines.	*Crime is a disease in our community, contaminating young minds and spreading its bacteria through our communities.*
Anaphora	Repetition at the beginning of the line.	*We must listen. We must stop global temperatures rising. We must work together.*
Tier 2	**Definition**	**Example/image**
Pervade	Spread through something.	*The feeling of hope pervaded through the crowd as he gave his speech.*
Escalate	To worsen or increase in seriousness.	*The situation escalated quickly because they grew increasingly violent.*
Convincing	Believable.	*The argument was convincing because of their use of ethos and logos.*
Compelling	Gripping or interesting.	*Their argument was compelling because of their use of pathos.*

Section 2: Key Knowledge

Ethos is how we portray **ourselves** in an argument: it is the image persuaders present of themselves, to those they attempt to persuade. '*You should believe in me because..'*

Logos is a Greek term meaning 'word' and refers to using **logic and reasoning** as your appeal. Logos is the clarity of the message itself, the credible arguments used and the supporting evidence e.g. **facts,** rather than emotion.

Pathos is the **emotional influence** of the speaker on the audience. Its goal is to make the audience feel something. Whether this is fear, joy, or patriotism, appealing to people's emotions is a really powerful way to get them onside.

How can we use ethos, logos and pathos in structuring an essay?

Introduction	Drop paragraph
Paragraph 1	• Point 1 – clear topic sentence • 'Logos': tone/devices – simple sentence, rhetorical question
Paragraph 2	• Point 2 – check link to previous paragraph • Develop ideas fully and explain points – think about appeal to reader: 'pathos' – link back to beginning. Use of repetition and pronouns for impact.
Paragraph 3	• Point 3 – check link to previous paragraph • Could add a counter-argument here if appropriate, or build on previous point. Use listing for effect/anaphora to build to conclusion.
Conclusion	• Big-picture ideas – man v man, man v society, man v nature, man v self • 'Ethos': think about the issues involved in the topic and what values are important. • Link back to beginning?

Section 3: Key Connections

'Education is not just about which school you go to, or what qualifications you gain; it is also about what you learn from your experiences outside of school.'

Write a speech for your school or college Leavers' Day to explain what you think makes a good education.

For example: you may connect to the world through…

Geography/socio-economic status- how this still impacts schools.

Historical ideas- grammar schools, lack of education leading to lack of work

Gender-historical lack of access to education for women

Gender-around the world lack of access to education for women

Good education is about opportunity to overcome the barriers discussed.

With a good education it shouldn't matter where you're from, your race, gender, social status.
A good education gives you equal footing in society.

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Section A: Key vocabulary

Tier 3 Vocabulary	Definition
Tangent (n)	A straight line touching a curve at a single point
Chord (n)	A straight line joining two points on the circumference of a circle
Arc (n)	A piece of a circumference
Sector (n)	A piece of a circle, bounded by two radii and an arc
Coefficient (n)	A number multiplied by a variable (in the expression $3x^2$ the coefficient of x^2 is 3)
Gradient (n)	The steepness of a line
Perpendicular (ad)	At a right angle
y-intercept (n)	Where a line crosses the y-axis
Reciprocal (n)	Two numbers are the reciprocal of each other if they multiply to 1
Subtended (ad)	Created from
Tier 2 Vocabulary	**Definition**
Simultaneous (ad)	At the same time
Substitution (n)	Putting one thing in place of another
Eliminate (v)	To remove or get rid of something
Intersection (n)	The place where two or more objects meet

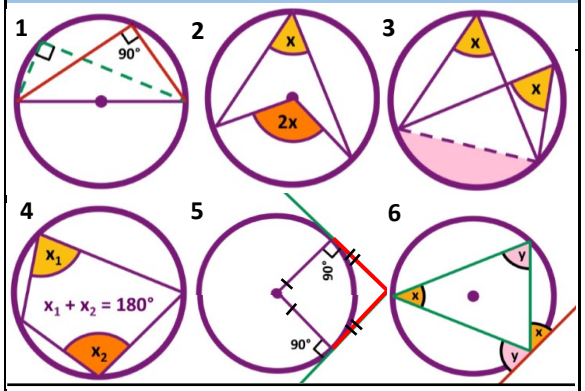
Concepts you have seen before:

Circumference, Radius, Diameter, Coefficient, Gradient, Perpendicular, y-intercept, Reciprocal, Isosceles Triangles, Angles rules, Equation of a Straight Line

Section B: Key Facts and Processes

Solving Simultaneous Equations	
By elimination	Equate the coefficients of one of the variables in both equations. Then add/subtract the equations so
By substitution	Make one of the variables the subject of an equation. Then replace that variable in the other equation with the right-hand side of the first equation
Circle Formulae	
Sector Area	$\frac{\theta}{360} \times \pi r^2$
Arc Length	$\frac{\theta}{360} \times \pi d$
Equation of a Circle	$x^2 + y^2 = r^2$
Circle Theorems (see section C for diagrams)	
1. Angles in a semi-circle...	Are 90°
2. Angles at the centre...	Are double angles at the
3. Angles subtended from the	Are equal
4. Opposite angles in a cyclic	Sum to 180°
5. Two tangents from a circle that meet at the same point...	Are equal in length
6. Angles created between a tangent and a chord...	Are equal to angles in the alternate segment
Equation of a Tangent (see section C)	

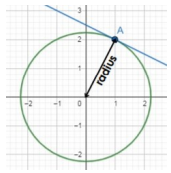
Section C: Support



Finding the Equation of a Tangent

1. Find the gradient of the radius by using dy/dx between the origin (0,0) and the co-ordinates of the point where the circumference meets the tangent

2. Find the negative reciprocal of step 1 (this is the perpendicular gradient and therefore gradient of the tangent)



3. Use the perpendicular gradient and

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Topic	Videos
Simultaneous Equations	U760
Arc Length and Sector Area	U221, U373
Equation of a circle and tangent	U567
Quad and Linear simultaneous	U547

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Section A: Key vocabulary

Tier 3 Vocabulary	Definition
Tangent (n)	A straight line touching a curve at a single point
Chord (n)	A straight line joining two points on the circumference of a circle
Arc (n)	A piece of a circumference
Sector (n)	A slice of a circle, the outside lines are two radii and an arc
Coefficient (n)	A number multiplied by a variable (letter) in Algebra
Tier 2 Vocabulary	**Definition**
Simultaneous (adj)	At the same time
Substitution (n)	Putting one thing in place of another
Eliminate (v)	To remove or get rid of something
Intersection (n)	The place where two or more objects meet

Concepts you have seen before:

Circumference, Radius, Diameter, Circles, Solving Equations, Substitution

Section B: Key Facts and Processes

Solving Simultaneous Equations *(see section C for example)*	1. Change one or both of the equations so that the coefficients of one of the letters is the same. 2. Add or subtract the equations to eliminate this letter 3. Solve your new equation to find the value of the remaining letter 4. Substitute your answer into the original equations 5. Solve to find the other letter
Circle Formulas	
Area	πr^2
Circumference	πd
Sector Area	$\frac{\theta}{360} \times \pi r^2$
Arc Length	$\frac{\theta}{360} \times \pi d$

Section C: Support

Solving Simultaneous Equations *(example)*

$2x + y = 7 \qquad 3x + 2y = 12$

1. Multiply first equation by 2 $\quad 4x + 2y = 14$

2. and 3. $4x + 2y = 14$ − $3x + 2y = 12$ = $x = 2$ Take-away the second equation to leave the value of x

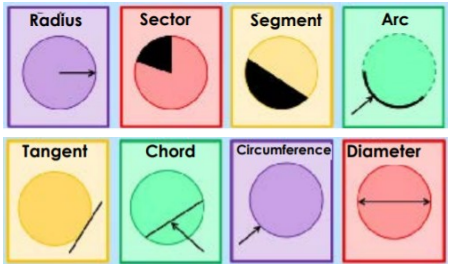
$2(2) + y = 7 \rightarrow 4 + y = 7$

$3(2) + 2y = 12 \rightarrow 6 + 2y = 12$

4. $x = 2$

$y = 3$

Parts of a Circle



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Topic	Videos
Simultaneous Equations	U760
Arc Length and Sector Area	U221, U373

Foundation Maths Science Skills Year 10 Spring 2

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Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Speed (n.)	A measure of how fast an object is moving (m/h, mph, kmph, m/s, ms^{-1})
Density (n.)	A measure of how much mass is in a unit of space/volume (kgm^{-3} or kg/m^3)
Mass (n.)	The amount of physical matter an object contains (kg); weight is the measure of mass after considering gravity
Pressure (n.)	A measure of the amount of force on a surface per unit area (N/m^2)
Distance (n.)	How far an object has travelled during motion (m, cm, miles, km)
Velocity (n.)	The speed of an object in a given direction
Tier 2 vocabulary	**Definition**
Calculate (v.)	To work out the value
Evaluate (v.)	To work out the value
Unit of value (n.)	The measurements symbol e.g. mph, °, L , kgm^{-3} or kg/m^3 , N , N/m^2
Surface (n.)	The outside faces or layers of a 3D (three dimensional) shape
Prism (n.)	A 3D shape with a congruent polygon cross-section throughout its length
Sphere (n.)	A round 3D shape with one face
Cylinder (n.)	A 3D shape with a congruent circle cross-section throughout its length
Sketch (n.)	A rough drawing representing the key features

Concepts you have seen before:

Equation of straight lines, substitution into a formula, rearranging equations, shape names, surface area, volume, time

Section 2: Key Fact and Processes

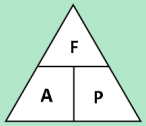
Index Laws

$a^m \times a^n = a^{m+n}$	$2^5 \times 2^3 = 2^8$
$a^m \div a^n = a^{m-n}$	$5^7 \div 5^3 = 5^4$
$(a^m)^n = a^{m \times n}$	$(10^3)^7 = 10^{21}$
$a^1 = a$	$17^1 = 17$
$a^0 = 1$	$34^0 = 1$

$\left(\frac{a}{b}\right)^m = \frac{a^m}{b^m}$ $\quad \left(\frac{5}{6}\right)^2 = \frac{25}{36}$

$a^{-m} = \frac{1}{a^m}$ $\quad 9^{-2} = \frac{1}{81}$

$a^{\frac{x}{y}} = \sqrt[y]{a^x}$ $\quad 49^{\frac{1}{2}} = \sqrt[2]{49} = 7$



Pressure = Force / Area

Area = Force / Pressure

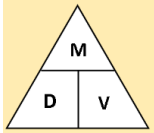
Force = Area x Pressure

Kinematics

Speed = Distance / Time

Distance = Speed x Time

Time = Distance / Speed

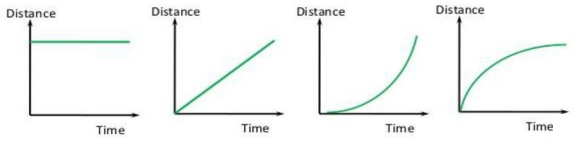


Volume = Mass / Density

Density = Mass / Volume

Mass = Density x Volume

Distance-time graph



The gradient of the line shows you the speed

Standard form

$4500000 = 4.5 \times 10^6$

1 or greater but less than 10 — Multiply — Base 10 — Integer power

$0.00453 = 4.53 \times 10^{-3}$

Section 3: Support

Formula triangles help us to remember these important formulae and how to work out which calculation to use. Look at this 3 mark GCSE question:

Stuart drives 180 km in 2 hours 15 minutes. Work out Stuart's average speed.

For this question we need to know the total time taken In hours:

15 minutes is a quarter (0.25) of an hour, so 2 hours and 15 minutes is the same as 2.25 hours in total.

We know the total distance travelled is 180 km.

The average speed = $\frac{\text{total distance}}{\text{total time}}$

= 180 ÷ 2.25 = 80

so the average speed = 80 **km/hr**

Don't forget your units!

÷60

Minutes to Hours

Number of minutes	Proportion of an hour
3 minutes	0.05
6 minutes	0.1
12 minutes	0.2
15 minutes	0.25
30 minutes	0.5
45 minutes	0.75
135 minutes	2.25

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Topic	Videos
Index laws	U235, U694
Standard form	U330, U534, U264, U290
Surface areas	U929, U259, U464, U523
Speed	U151
Distance-time graphs	U462, U966,
Volumes	U786, U174, U484, U915, U617
Density	U910
Pressure	U527

Higher Maths Science Skills Year 10 Spring 2

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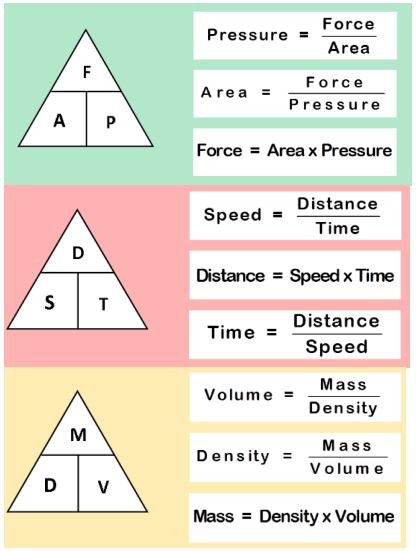
Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Speed (n.)	A measure of how fast an object is moving.
Acceleration (n.)	The rate of change of speed over a given time.
Density (n.)	A measure of how much mass is in a unit of space/volume (kgm^{-3})
Mass (n.)	The amount of physical matter an object contains (kg); weight is the measure of mass after considering gravity
Pressure (n.)	A measure of the amount of force on a surface per unit area (N/m^2)
Kinematics (n.)	The study of the motion of objects.
Distance (n.)	How far an object has travelled during motion.
Intercept (n.)	The point where a line or curve crosses the axis.
Velocity (n.)	The speed of an object in a given direction.
Gradient (n.)	The slope of a line on a graph found by dividing the change in y by the change in x.
Tier 2 vocabulary	**Definition**
Initial (n.)	Something that occurs first
Unit of value (n.)	The measurements symbol e.g. mph, ^{o} , L , kgm^{-3} or kg/m^3 , N , N/m^2
Convert (v.)	A change in the form, character for function of something

Concepts you have seen before:

Area, Volume, Equation of straight lines, substitution into a formula, rearranging equations, area of shapes.

Section 2: Key Fact and Processes



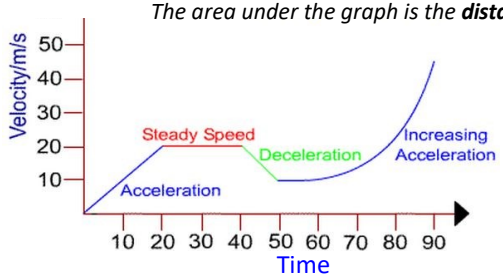
How is **acceleration** calculated?

Change in velocity divided by the time taken.

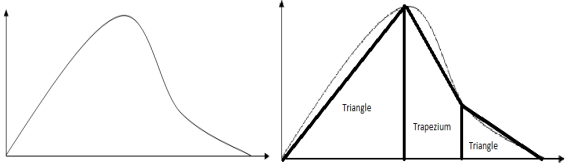
$$\frac{v - u}{t}$$

Velocity-Time Graph a.k.a. Speed-Time Graph

*The area under the graph is the **distance**.*



If the graphs line is curved, then you need to **estimate** the area under the graph by **splitting it into simpler shapes**.



Section 3: Support

Formula triangles help us to remember these important formulae and how to work out which calculation to use. Look at this 3 mark GCSE question:

The distance by road from Birmingham to London is 160 miles.

Sally is travelling at an average speed of 50mph.

Sally leaves Birmingham at 11.30am

What time will Sally arrive in London?

For this question we need to calculate the time taken.

We know the distance is 160 miles and the speed is 50mph

Distance ÷ speed = 160 ÷ 50 = 3.2

This is 3 full hours plus 0.2 hours, **not** 3 hours 20!

60 x 0.2 = 12 minutes

It takes 3 hours 12 minutes to complete the journey.

11.30am + 3 hours 12 minutes = **2.42pm**

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Topic	Videos
Index laws	U235, U694
Standard form	U330, U534, U264, U290
Speed	U151
Distance-time graphs	U462, U966,
Volumes	U786, U174, U484, U915, U617
Density	U910
Pressure	U527
Speed-time graphs	U462, U966
Converting Units	U388, U248, U468, U497

Subject: Biology Year 10 Spring Term 1—Infection and Response

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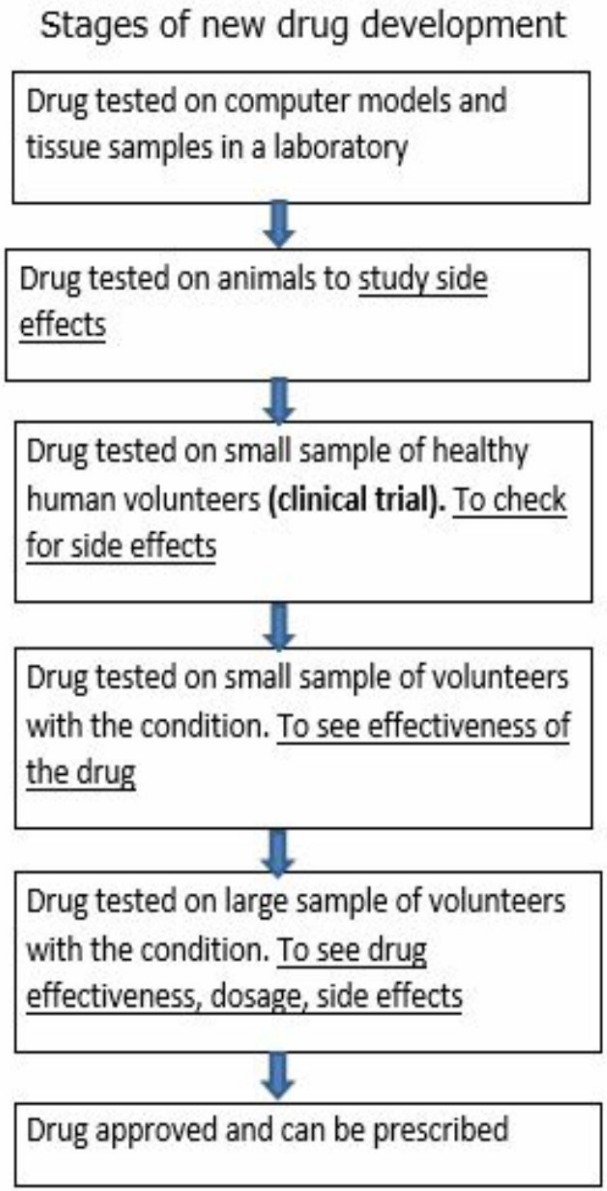
Section A: Key vocabulary

Tier 3 Vocabulary	Definition
Antigen (n)	Protein on the surface of a microorganism.
Antibody (n)	Protein made by lymphocytes that bind to a specific antigen.
Lymphocyte (n)	Type of white blood cell that makes antibodies and antitoxins.
Phagocyte (n)	Type of white blood cell that engulfs microorganisms.
Vaccine (n)	Injection of a weakened or dead version of a pathogen.
Vector (n)	An organism that spreads a disease but does not cause it.
Aseptic (adj)	Without microorganisms (sterile).
Tier 2 Vocabulary	**Definition**
Communicable disease (n)	A disease that can be spread between organisms.
Non-communicable disease (n)	A disease which can not be spread between organisms.
Pathogen (n)	A micro-organism which causes disease.
Disease (n)	A condition caused by any part of the body not working properly.
Antibiotics (n)	Drugs that kill bacteria.
Incubation Period (n)	Time taken from being infected to showing symptoms.
Antiseptic (adj)	Kill pathogens on the skin.

Section B: Important Ideas / Concepts / Questions

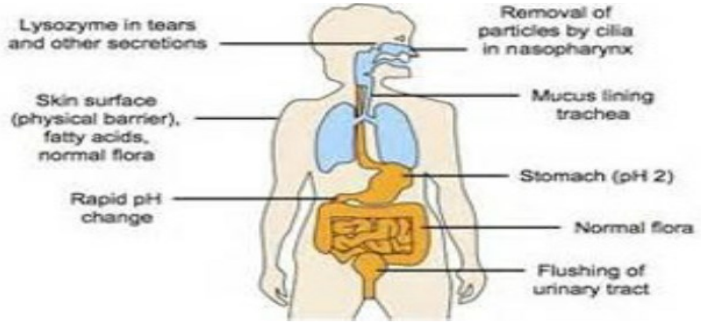
Stages of new drug development



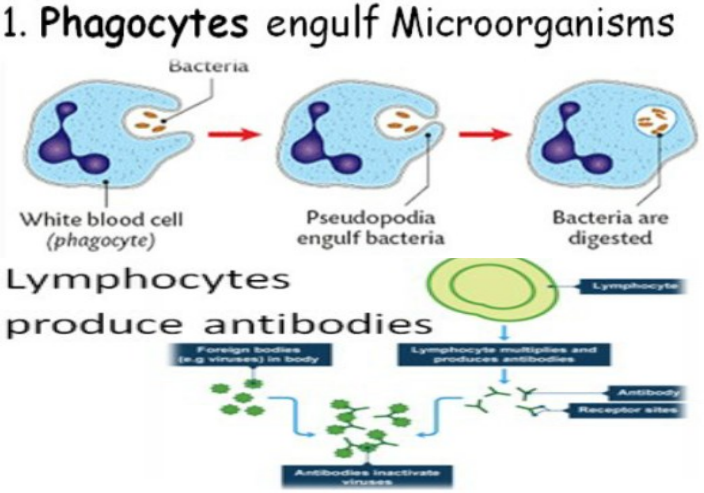
Section C: Subject Specific

Body defence mechanisms

1. Barriers to infection-the human body has a number of barriers to prevent pathogens entering.



2. If pathogen enters the body there are 3 ways white blood cells prevent them causing disease.



3. Producing antitoxins to counteract toxins from invading bacteria.

Concepts you have seen before:

Year 9 Health and Disease : Primary and secondary defences

Biology. Year 10 Spring Term 2—Bioenergetics

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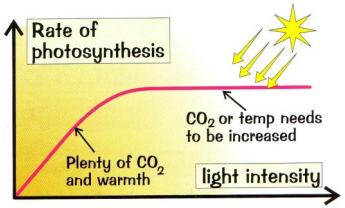
Section A: Key vocabulary

Tier 3 Vocabulary	Definition
Photosynthesis (n)	Endothermic reaction which takes place in plants and algae and produces a source of food.
Aerobic respiration (n)	Exothermic reaction in which glucose is broken down to produce carbon dioxide, water and release energy for cells.
Anaerobic respiration (n)	Exothermic reaction in which glucose is broken down without oxygen to produce lactic acid and release a small amount of energy for cells.
Endothermic reaction (n)	Reaction which requires an input of energy from the environment.
Exothermic reaction (n)	Reaction that releases energy to the environment.
Metabolism (n)	The sum of all the reactions taking place in a cell or body of an organism.
Oxygen debt (n)	Extra oxygen that must be taken in to remove lactic acid after anaerobic respiration.

Tier 2 Vocabulary	Definition
Transfer (v)	Move from one place to another.
Insufficient (adj)	Not enough.
Reaction (n)	When substances are changed into something new.
Synthesise (v)	Make something.
Rate (n)	Measure of how quickly something happens.

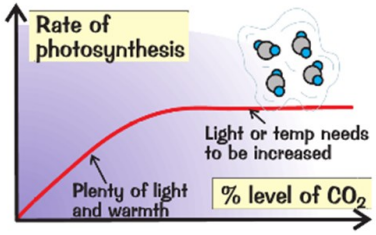
Section B: Processes

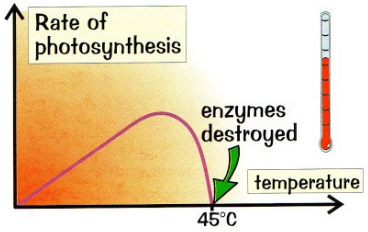
Limiting Factors



Photosynthesis can increase when there is plenty of light, CO_2 and warmth. Soon, the light will no longer have an effect and one of the other factors will

Photosynthesis can increase when there is plenty of CO_2, light and warmth. Soon, the CO_2 will no longer have an effect and one of the other factors will need to be





Photosynthesis can increase there are warmer temperatures. If the temperature gets too hot, the enzymes will be denatured and photosynthesis will no

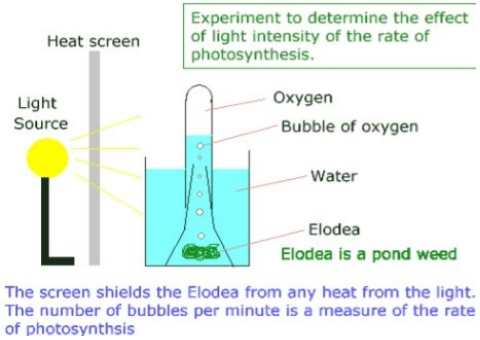
Comparison of Respiration in Humans

Aerobic	Anaerobic
Requires oxygen.	Doesn't require oxygen.
Occurs in mitochondria.	Occurs in cytoplasm.
Releases a lot of ATP (energy) per glucose molecule (38 ATP).	Releases less ATP (energy) per glucose molecule (2 ATP).
Used in during periods of normal activity.	Used during hard exercise.

Section C: Reactions

Light Intensity Affects Photosynthesis Rate

Vary the distance of the light from the plant to see the effect light intensity has on the volume of oxygen produced by the plant.

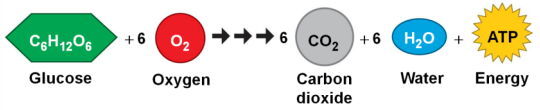


Word and symbol equations

Carbon dioxide + Water → (Light, Chlorophyll) → Glucose + Oxygen

$6\,CO_2 + 6\,H_2O \rightarrow (\text{Light, Chlorophyll}) \rightarrow C_6H_{12}O_6 + 6\,O_2$

Photosynthesis:



Aerobic respiration:

glucose → lactic acid + energy

$C_6H_{12}O_6 \rightarrow 2C_3H_6O_3 + 2ATP$

Concepts you have seen before:

Yr7 Cells, Yr8 Plants

Science (Chemistry) - Year 10 Spring Term 1– Chemical Changes

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Section A: Key vocabulary

Tier 3 Vocabulary	Definition
Oxidation (n)	A gain of oxygen, or loss of electrons, by a substance in a chemical reaction.
Reduction (n)	A loss of oxygen, or gain of electrons,
Ion (n)	Charged particle formed when an atom, or group of atoms, loses or gains electrons.
Neutralisation (n)	A reaction between an acid and a base or alkali producing a salt plus
Smelting (n)	The process of applying heat to ore in order to extract a base metal.
Hydrogen ion (n)	created when a hydrogen atom loses or gains an electron.
Tier 2 Vocabulary	**Definition**
Displacement (n)	Reaction in which a more reactive element displaces a less reactive ele-
Solutions (n)	A mixture formed when one substance dissolves in another.

Concepts you have seen before:

Year 8 Chemical Reactions, Year 9 Periodic Table and Reactivity

Section B: Important Information

The Reactivity Series

Order of Reactivity	Reaction with water	Reaction with dilute acid
Potassium	fizz, giving off hydrogen gas, leaving an alkaline solution of metal hydroxide	explode
Sodium		
Lithium		
Calcium		fizz, giving off hydrogen gas and forming salt
Magnesium	very slow reaction	
Aluminium		
Zinc		
Iron		
Tin	slight reaction with steam	react slowly with warm acid
Lead		
Copper	no reaction, even with steam	No reaction
Silver		
Gold		

Redox Reactions

OILRIG— Oxidation is Loss (of electrons), Reduction is Gain (of electrons)

Redox—Reduction and oxidation happening at the same

Redox reactions

Reduction gain of electrons

Oxidation loss of oxygen

redox= reduction and oxidation happening together

magnesium oxidised to magnesium oxide

copper oxide reduced to copper

$Mg + CuO \rightarrow MgO + Cu$

Metals & Acid Reactions as Redox Reactions (HT)

- Metal-acid reactions are **redox reactions**
- Redox means reduction and oxidation at the same time
- If we analyse the ionic equation for the reaction between zinc and hydrochloric acid: **$Zn + 2HCl \rightarrow ZnCl_2 + H_2$**

The ionic equation is: **$Zn + 2H^+ \rightarrow Zn^{2+} + H_2$**

Section C: Metal Extraction

Metal	Method of extraction
Most Reactive	
Potassium	Extracted by electrolysis of the molten metal compound as they are more reactive than carbon.
Sodium	
Calcium	
Magnesium	
Aluminium	
(carbon) Zinc	Copper, lead, Iron and zinc often found combined with oxygen as metal oxides. Because carbon is more reactive than each of these metals, carbon is used to extract the metals from their oxides. Metal oxide + carbon → metal + carbon dioxide
Iron	
Tin	
Lead	
(Hydrogen) Copper	
Gold	Found as pure elements.
Platinum	
Least reactive	

Reactions of Acids with Metals

Acid	Sulfuric Acid	Hydrochloric Acid
Magnesium	$Mg + H_2SO_4 \longrightarrow MgSO_4 + H_2$	$Mg + 2HCl \longrightarrow MgCl_2 + H_2$
Zinc	$Zn + H_2SO_4 \longrightarrow ZnSO_4 + H_2$	$Zn + 2HCl \longrightarrow ZnCl_2 + H_2$

Only metals above hydrogen in the reactivity series will react with dilute acids. The more reactive the metal then the more vigorous the reaction will be. Metals that are placed high on the reactivity series such as potassium and sodium are very dangerous and react explosively with acids. When acids react with metals they form a salt and hydrogen gas:

The general equation is:

metal + acid —>salt + hydrogen

Subject: Chemistry. Year 10 Spring Term 2 - C5: Energy Changes

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Section A: Key vocabulary

Tier 3 Vocabulary	Definition
activation energy	the minimum amount of energy that colliding particles must have for them to react
bond energy	the amount of energy required to break one mole of a particular covalent bond
endothermic	a reaction that takes in energy from the surroundings
exothermic	a reaction that transfers energy to the surroundings
fuel cells (T)	sources of electricity that are supplied by an external source of fuel
Reaction Profile	A chart showing how the energy of reactants and products changes during a reaction
Thermal decomposition	Type of reaction in which a compound breaks down to form two or more substances when it is heated

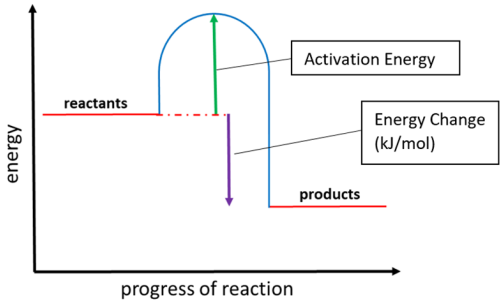
Tier 2 Vocabulary	Definition
Final	Occurring at the end
Initial	existing or occurring at the beginning.
Investigating	carry out research or study into a subject or problem
Insulate	To help maintain the temperature

Concepts you have seen before:

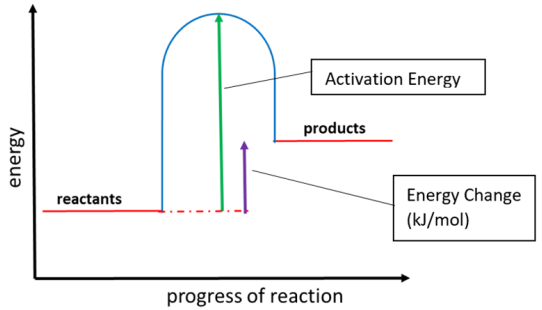
Year 7 Atoms, Year 8 Chemical Reactions, Year 9 Periodic table and Reactivity

Section B:

Reaction Profile Diagrams



The reaction profile for an **endothermic reaction**. The energy of the reactants is lower than that of the products.



The reaction profile for an **exothermic reaction**. The energy of the products is higher than that of the reactants.

For a chemical reaction to take place:

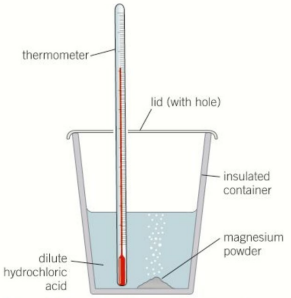
- bonds in the reactants must be broken. Energy is supplied to break bonds. This means energy is transferred to the reactants meaning bond breaking is always an endothermic process.
- New chemical bonds are formed to make the products, transferring energy to surroundings, meaning it is an exothermic process.
- This means every chemical reaction has components which are both endo- and exo-thermic, which explains why reaction profiles always have the energy of the reaction mixture increasing then decreasing.

Section C:

Practical skills: Identifying a reaction as exothermic or endothermic

A reaction can be determined as exothermic or endothermic by finding the change in temperature, that is the difference between the **initial temperature** of a reaction and the **final temperature.** Temperature of the reaction mixture is measured using a **thermometer**.

A reaction is usually carried out in an **insulated container** (e.g. a polystyrene cup) to prevent heat loss to the surroundings, along with a lid on the container.



Fuel Cells (triple science only)

Fuel cells produce a continuous voltage, as long as they are supplied with:

- a constant supply of a suitable fuel
- oxygen, eg from the air

In a hydrogen-oxygen fuel cell, hydrogen and oxygen are used to produce a voltage. Water is the only product.

Word equation: hydrogen + oxygen → water

Symbol equation: $\mathbf{2H_2(g) + O_2(g) \rightarrow 2H_2O(l)}$

Half equation - negative electrode: $\mathbf{2H_2 + 4OH^- \rightarrow 4H_2O + 4e^-}$

Half equation - positive electrode: $\mathbf{O_2 + 2H_2O + 4e^- \rightarrow 4OH}$

Physics. Year 10 Spring Term 1—Particle Model of Matter

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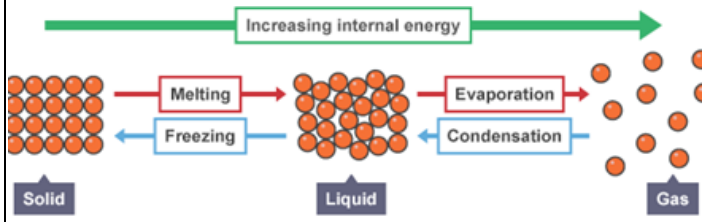
Section A: Key vocabulary

Tier 3 Vocabulary	Definition
Density (n)	Mass per unit volume of a substance.
Internal energy (n)	The energy of the particles of a substance due to their individual motion and positions.
Specific heat capacity (n)	The energy needed to raise the temperature of 1kg of a substance by 1°C.
Physical change (n)	A change in which no new substances are produced.
Specific latent heat of fusion (n)	Energy needed to melt 1 kg of a substance with no change of temperature.
Specific latent heat of vaporisation (n)	Energy needed to boil away 1 kg of a substance with no change of temperature.
Sublimation	When a substance changes from a solid to a gas
Tier 2 Vocabulary	**Definition**
Pressure (n)	Force per metre squared for a force acting on a surface.
Melting point (n)	Temperature at which a pure substance melts or freezes (solidifies).
Boiling point (n)	Temperature at which a pure substance boils or condenses.
Freezing point (n)	The temperature at which a pure substance freezes.

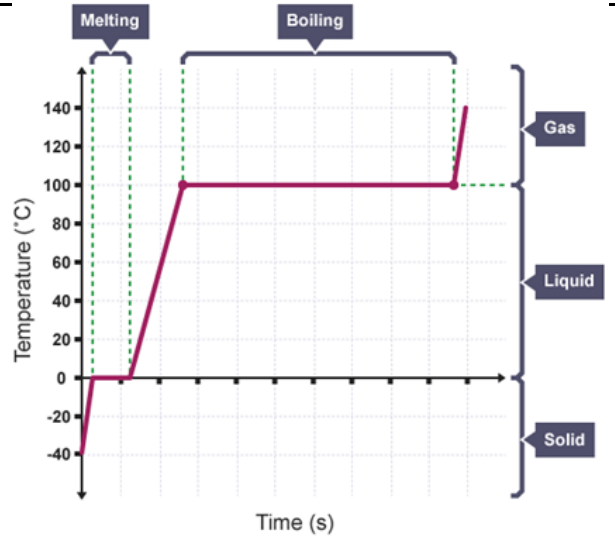
Section B: Heating and Cooling



Changing States

When energy is supplied to a substance it will increase the particle speed so they gain kinetic energy and **raise the temperature** or the energy can overcome the forces of attraction so the particles separate and **change state**.

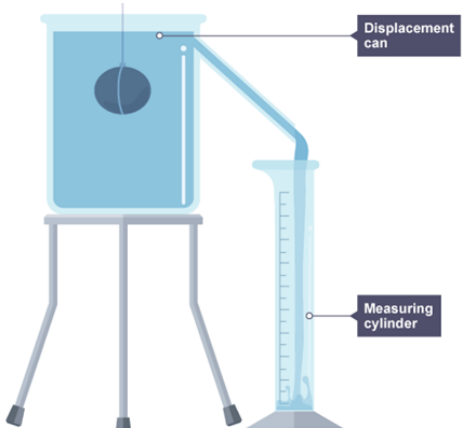
There is a change in the **internal energy** of the object



Heating and Cooling graph

The graph is horizontal at two places. These are the places where the energy is **not** being used to increase the speed of the particles (increasing temperature) but is being **used to separate** the particles to change the state.

Section C: Density Required Practical



1	**Record** the **mass** of the object using a **balance.**
2	Place object in a displacement can full of water
	Record the **volume** of water displaced using a **measuring cylinder**.
3	Use the equation **density = mass/volume** to calculate the density of the object.
4	To make this experiment **repeatable** ensure the water level is in line with the spout before any measurements are taken for this experiment.

Worked Example

The mass of the object was 1kg and the amount of water displaced was 0.1 m^3. Calculate the object's density.

Density = mass/volume
Density = 1 / 0.1
Density = 10 kg/m^3

Concepts you have seen before:

Year 7 States of Matter, Year 7 Energy

Subject: Physics. Year 10 Spring Term 2. Waves

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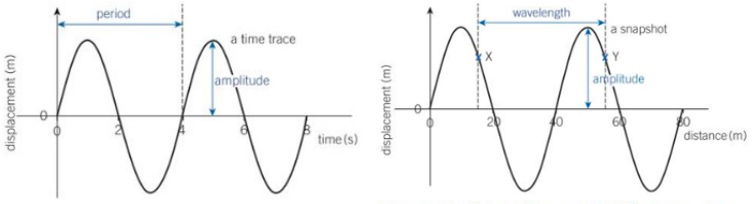
Section A: Key vocabulary

Tier 3 Vocabulary	Definition
Infrared radiation	Electromagnetic waves between visible light and microwaves in the electromagnetic
Longitudinal Waves	Waves in which the vibrations are parallel to the direction of energy transfer
Real Image	An image formed by a lens that can be projected on a screen
Reflection	The change of direction of a light ray or wave at a boundary when the ray or wave stays in
Refraction	The change of direction of a light ray when it passes across a boundary between two
Transverse Wave	A wave where the vibration is perpendicular to the direction of energy transfer
Tier 2 Vocabulary	**Definition**
Frequency	The number of wave crests passing a fixed point every second
Normal	Straight line through a surface or boundary perpendicular to the surface or boundary

Section B: Waves

Transverse Waves

Transverse waves: These graphs **are not the same**. On the *left* the x scale is **time** so you can work out the **time period** for one wave**.** On the *right* the x scale is **distance**, so you can find **wavelength. Amplitude** is always from the middle (0 displacement).



You can *measure* **wavelength** with a *ruler* in the tank but you need to freeze them with a stroboscope or camera.

Frequency can be *counted* but you may need to film it with a timer and slow it down.

Use: **V = fλ**

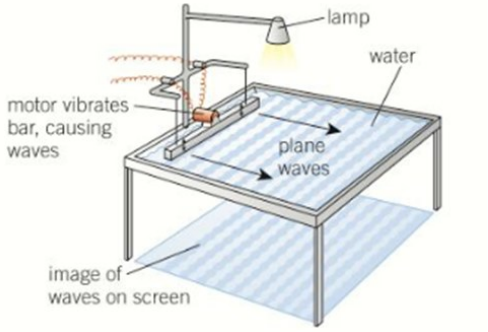
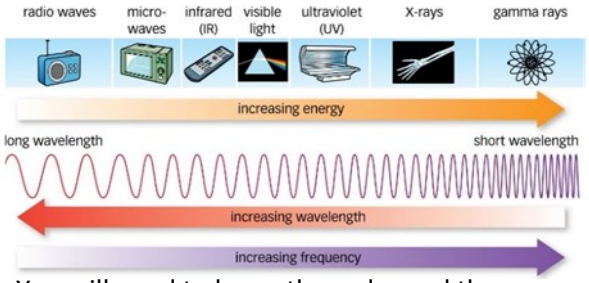


Figure 3 *You can use a ripple tank to measure the velocity of waves that you make.*

Electromagnetic Spectrum

Section C: Diagrams



You will need to know the order and the direction of the trends e.g. gamma rays are the *shortest* wavelength, *highest* frequency and *most* energetic.

A mnemonic to help memorise the order is:

Ronald

MacDonald

Is

Very

Unlikely

Waves

Wave	Type	Medium	Velocity m/s
sound	longitudinal	mechanical	Air =340 Water = 1500 Steel = 6000
Light (all EM waves)	transverse	None (vacuum)	300,000,000 ($3x10^8$)
Ripples	transverse	mechanical	0.2- 0.3

Concepts you have seen before:

Year 9 Waves and Radiation

Yr10 Religious Studies: Living the Christian Life—Worship—Spring 1

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Section A: Key vocabulary	
Tier 3 Vocabulary	**Definition**
Liturgy (n)	A set form of public worship
Liturgical (adj)	Worship following a set pattern
Non-Liturgical (adj)	Worship that doesn't follow a set pattern
Liturgical Year (adj)	The church's calendar based on festivals from Advent to Pentecost.
Charismatic (adj)	Worship focused on the gifts of the Holy Spirit e.g. healing, speaking in tongues
Glossollalia/ Speaking in tongues (v)	Praying in an unknown language given by the Holy Spirit
Public/ Communal/ Collective Worship	Worship with others usually in a church
Clergy (n)	People ordained to lead worship and the sacraments.
Vestments (n)	Official robes worn by clergy when leading worship.
Lectionary (n)	A book that contains a collection of Bible readings appointed for every service.
Denomination (n)	A type of Christian, e.g. Roman Catholic
Tier 2 Vocabulary	**Definition**
Worship (v)	An act of homage or reverence paid to God
Reverence (n)	An act showing religious respect
Homage (n)	Showing God's superiority

Section B: Worship

Liturgical worship:

Public worship in a church that uses set prayers and rituals. The worshippers can follow the service and join in certain parts. The words have been used for many years which means worshippers can develop their understanding of their faith. The Bible readings are based on the Christian calendar, this means that the congregation follow the main events of the Church's year. This takes place as set times, especially on a Sunday.

Non-liturgical worship:

Public worship in a church without set prayers and rituals. The leader of the worship is free to choose the hymns, prayers and Bible readings. These happen at set times, especially on Sundays. Music is often a major part with hymns or gospel songs. Prayers are unprepared but are based on thanksgiving and forgiveness. There will often be more congregational involvement with worshippers leading prayer of expressing approval of the sermon with "Hallelujah!"

Informal prayer:

Many Christian families worship God at home by saying grace before meals, having family prayers, reading the Bible together and celebrating festivals.

Many churches also have worship in much more informal ways, especially for families and young people. 'Messy church' provides worship for families, which is based on fun, creativity and celebration.

Private worship:

Most Christians will worship God at certain times on their own as they pray to God in private or read the Bible alone. Private worship is when Christians have the opportunity to talk to God and think about their faith.

Section C: What's the importance of worship?

Different types of worship are used because:

- People need to be able to worship in the home as this is the heart of people's lives and worshipping as a family brings the family together.

- Informal worship helps people to see God in the ordinary and to realise that worship can happen anywhere in any way.

- Worshipping with others in church gives a sense of belonging to a whole community of believers and gives an opportunity to feel the strength of the faith and make friends with others in the faith.

Christians believe it is important to worship God because:

- It is an expression of their faith in God;
- It allows them to receive forgiveness from God for the things they have done wrong;
- It is an opportunity to connect with God in a way that helps them grow spiritually and understand God's purpose for them as an individual;
- It reminds Christians of key beliefs – e.g. Jesus is the Son of God (God in skin form), Salvation through the cross.

Concepts you have seen before:
Christianity—Belief in God—nature of God, Trinity,

Yr10 Religious Studies: Living the Christian Life—Sacraments—Spring 2

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Section A: Key vocabulary

Tier 3 Vocabulary	Definition
Sacrament (n)	An outward sign of an inward blessing.
Grace (v)	God's gift of love which humans don't deserve (God's Riches At Christ's Expense).
Baptism (n)	Being washed by water as a symbol of being cleansed from sin.
Infant Baptism/ Christening (n)	Baptising babies with the parents and godparents making the baptismal vows.
Adult/Believer's Baptism (n)	Only allowing baptism for those old enough to make the promises for themselves.
Dedication (n)	A ceremony thanking God for the birth of a baby and asking for His blessing.
Confirmation (n)	Accepting the baptismal vows made by your parents and godparents for yourself.
Testimony (n)	Explaining how you came to believe in Jesus as your Saviour.
Original Sin (n)	The sin inherited from Adam and Eve when they disobeyed God.
Holy Communion (n)	Service of thanksgiving using bread and wine. Eucharist - Church of England Mass - Roman Catholic
Transubstantiation (n)	Roman Catholic belief that during the Mass the bread and wine literally become the body and blood of Jesus.
Penance (n)	An action showing you are sorry for sin.
Absolution (n)	The priest/vicar saying that your sins have been forgiven.

Section B: Baptism

The sacraments are essential in the life of Catholic Christians because:
- Through sacraments they receive grace and blessings from God.

- sacraments mark the journey of faith that Christians go through in life.

- sacraments make Christians stronger in their faith.

- Catholics have 7 sacraments: Baptism, Confirmation, Mass, Penance, Anointing of the sick, Marriage and Holy Orders.
- Most Protestant Christians have only 2 sacraments – Baptism and Holy Communion.
- Some Protestant Christians do not have any sacraments at all (Quakers, Salvation Army).

Roman Catholic Infant baptism / Christening	Baptist Adult /Believer's Baptism
- Parents and godparents make promises on the child's behalf.- The baby is marked with the sign of the cross. - The priest removes all sin by anointing the baby with oil. - Water is poured over the child's head as the priest recites: "I baptise you in the name of the Father, the Son and the Holy Spirit. Amen." - Baptism removes original sin so if the baby dies, they will go to Heaven. - Shows publicly that the child is now a Christian. - It gives the parents strength and support in bringing up their child as a Christian.	- Baptismal pool which is filled with water. - The person is asked if they believe that Jesus is Lord. - They say a few words about how they came to believe in Christ (testimony). - The minister lowers them completely into the water, saying: "*I baptise you in the name of the Father, the Son and the Holy Spirit. Amen.*" - People need to be old enough to make their own decision to become a Christian. - Signifies the end of their old life and being born again to a new life in Christ.. - Make a personal commitment of faith in Jesus. - It follows the example of Jesus being baptised as an adult.

Section C: Holy Communion

Roman Catholic Mass	Methodist Holy Communion
Confession of sins and receive absolution. - Readings from the Bible and a sermon to learn about the faith. - Receiving of the bread and wine. - Priest blesses the people and sends them out into the world. - Expected to go every Sunday & Holy Days. - Alcoholic wine & wafer of unleavened bread. - **Re-enactment**: The bread and wine are changed by a spiritual process called **transubstantiation** into the blood and body of Christ.	- Celebrated once a month. It is not compulsory. - The wine is non-alcoholic and is drunk from individual glasses; the bread is normal bread. - **Remembrance**: The bread and wine do not change, they are symbols of the presence of Jesus and what he sacrificed for all humans.

What is the importance of Holy Communion?
- Jesus commanded his followers to: "…do this in memory of me." So by taking the Eucharist they are following Jesus' commands.
- Brings unity as they share the one body of Christ and share the peace together.
- Gives spiritual nourishment, filling them with God's grace.
- Reminder of the Last Supper, crucifixion and resurrection of Christ.

Concepts you have seen before: Christianity—Belief in God—nature of God, Trinity, salvation and atonement

History—Spring Term 2—Germany: Democracy to Dictatorship Part 3

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Section 1: Key Vocabulary	
Tier 3	**Definition**
Anti-Semitism (n)	Hatred for and persecution of the Jews.
Aryan (n)	A person of German or Scandinavian origin, usually fair-haired (blonde) and blue-eyed. The Nazis believed that Aryans were superior to all other races.
Concentration Camp (n)	Camp in which people are held under harsh conditions and without the freedoms of the rest of society.
Death Camps (n)	An extermination camp where prisoners, mainly Jews, were put to death.
Einsatzgruppen	A branch of the SS who were mobile death squads responsible for murder of those that the Nazis thought were racial or political enemies.
Flüsterwitze (n)	These were 'whisper jokes'; jokes you would whisper quietly about the Nazis so you did not get caught.
Gestapo (n)	Part of the SS and Nazi Germany's secret police force, created by Herman Goering in 1933 and controlled by Himmler.
Ghetto (n)	An area where members of a particular racial group are forced (or sometimes choose) to live.
Schutzstaffel (n)	Also known as the SS, they became one of the main methods of terror in Nazi Germany. Their jobs included suppressing political enemies and persecuting Jews.
Tier 2	**Definition**
Propaganda (n)	Systematic spreading of ideas and information in order to influence people's thinking and actions, often through the use of media such as posters, film, radio and newspapers.
Indoctrinate	Another word for 'brainwash'; to teach someone to believe without questioning it.
Police State (n)	Country controlled by a political police force; the government has strict controls over people's lives, especially by means of a secret police force.
Persecute (v)	To treat someone cruelly because of, for example, his or her race, religion or gender.
Censorship (n)	Limiting access to information, ideas, or books to prevent knowledge or the freedom of thought.
Exterminate (n)	To destroy or kill.
Dictator (n)	Ruler with total control over how a country is governed.

Section 2: People and Places

The Final Solution: This was the plan, decided at the Wannsee Conference, in which the quickest and cheapest way to kill all remaining Jews in Europe. The decision to exterminate the Jewish population using poison gas became known as the 'Final Solution to the Jewish problem'. An estimated 6 million Jews were killed.

Jewish Resistance:

Swing Youth—Openly resisted the Nazis and stating their dislike of Nazi ideas and policies by listening to jazz music and having Jewish friends.

White Rose Group—They urged Germans to get rid of Hitler by handing out anti-Nazi leaflets, putting up posters and writing graffiti.

Edelweiss Pirates— They beat up Nazi officials and helped Nazis who deserted (abandoned) the army.

Heinrich Himmler: All police forces were put under the control of Himmler, the Head of the SS. He personally reported to Hitler and was a loyal Nazi who had known Hitler since 1923.

Joseph Goebbels: Joined the Nazi Party in 1924. Did not fully support Hitler at first, but was later put in charge of Nazi **propaganda**. He was a gifted speaker.

Chamber of Culture Set up by the Nazis and led by Goebbels, all musicians, writers, artists and actors had to be members of this group. Anyone who refused could not work. The Chamber ruled that the same messages had to be given, such as Nazi beliefs being correct.

Ideas/ key words you have seen before: Autocracy, assassinate, democracy, peaceful protest, opposition, left-wing, right-wing.

Section 3: Chronology	
March 1933	Following being elected in February 1933, the **Enabling Act** was passed allowing Hitler to pass laws without the need of the Reichstag's approval.
April 1933	Secret police called the **Gestapo** are formed and the first concentration camp at **Dachau** is opened.
May 1933	All **trade unions are banned**. Leaders are arrested.
July 1933	All **political parties are banned** with the exception of the Nazi Party. Passed 'Law Against the Formation of New Parties' which stated that anyone trying to set up or run a party would go to prison for three years.
June 1934	**Night of the Long Knives:** Hitler purges the party of all those who might overthrow him.
Aug 1934	President Hindenburg dies, Hitler takes over his role and makes the army swear an oath of loyalty to him and not Germany. Hitler gives himself the title of Der Fuhrer.
1935	**Nuremburg Laws:** This set of laws banned Jews from being able to vote and from marrying non-Jews.
1938	**Kristallnacht:** The 'Night of the Broken Glass', in November 1938, when Jews, their shops and businesses were attacked throughout Germany.
Sep 1939	Outbreak of the Second World War following Germany's invasion of Poland.
Jan 1942	**Wannsee Conference**: the plan for the 'final solution' which intended to exterminate Europe's Jews.
1944	**July Bomb Plot**: This was an attempt in July 1944 by a group of Germans to kill Hitler ,take over Germany, and end the Second World War.
May 1945	Germany surrenders to the Allies. This is end of the Second World War in Europe.

History—Migration part one —Term 2 /Half-Term 4

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Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Danegeld *(n)*	Money that English Kings like Aethelred paid to the Vikings to stop them from attacking.
Danelaw *(n)*	Area of England under Viking control
Primogeniture *(n)*	Viking idea that only first born sons are given land. "Primo" meaning first, "-geniture" meaning "born"
Push factor *(n)*	Something negative that is pushing people away from a place
Pull factor *(n)*	Something positive that is pulling people towards a new place.
Tier 2 vocabulary	**Definition**
Conquest *(n)*	When something is conquered (defeated/ taken control of)
Empire *(n)*	Land ruled by one person/country
Monasteries *(n)*	Religious buildings where monks live. Monks devote their life to serving God.
Superiority *(n)*	Belief that you or your country are better than others.
Short term *(n)*	A short term consequence is a consequence that really affects people at the time, but doesn't have a long lasting effect.
Long term *(n)*	A long term consequence is a consequence that is still affecting history many years after the event happened.

Section 2: Key Facts

Migration Factors with examples from this unit

Economic Resources: Vikings invade England for tin, the Hundred Years War allowed England to control wealthy wine region like Gascony.

Religion: William wanted to make England more Christian, building cathedrals across the country.

Government: William believed he had been promised the throne by Edward the Confessor, causing him to conquer England when Godwinson was crowned.

War: The Battle of Hastings brought Normans to England. English soldiers travelled to France to fight the French in the Hundred Years War.

Ideas: The Viking idea of primogeniture led to migration for those who were not the first born sons.

Science and Technology: The Viking invention of the longboat led to migration.

Role of the Individual: Edward III was desperate to be a better King than his father, which inspired him to take on the French in the Hundred Years War.

Ideas/ key words you have seen before: short and long term factors, religion, government, war, individuals, empire, expansion, territory

Section 3: Timeline

Migration Unit 1

793CE: Vikings first invade England

They raid monasteries for resources like gold and tin, but begin to settle in England.

878: Alfred the Great defeats the Vikings at the Battle of Edington.

Vikings can now live in an area called the Danelaw, covering the North of England.

1016: King Cnut rules England as part of his North Sea Empire

Cnut adds England to his Empire which includes Norway, Denmark and parts of Sweden.

1066: Normans conquer England at the Battle of Hastings

William Duke of Normandy becomes King of England. The Normans will change England radically, building castles and cathedrals.

1171: Henry II invades Ireland and adds it to his Angevin Empire

The empire stretches from the edge of Scotland to the edge of Spain. It would be dismantled by King John.

1337-1453: The Hundred Years War between England and France

116 years of fighting, which the British eventually lost. Notables victories at Crecy, Poitiers and Agincourt create an idea of the English identity, as Kings return to speaking English and sees itself as separate from Europe.

Week Beginning (DD/MM/YYYY)	TASKS Year 10—History—Germany: Democracy and Dictatorship part 3 Migration part 1 —Term 2 /Half-Term 3
Option A 09/01/2024 Option B 16/01/2024	**Key Words summary** 1) **Write out** the following key words in your knowledge book; **Anti-Semitism, Aryan, Concentration Camps, Death Camps, Einatzgruppen, Flusterwitze, Gestapo, Schutzstaffel, propaganda, indoctrinate**: You should have 10 words in total. 2) Now **write a summary** of each definition alongside each word. Your summary definition must be no more than 3 words per key word. 3) Now **check your summary** definitions. Have you included words such as 'the, is, a, of'? If so, an you replace them with more meaningful key words
Option A 23/01/2024 Option B 30/01/2024	**Look, cover, write, check and correct** 1) **Draw a table** for 'Look, Cover, Write, Check and Correct' as on your 'How do I self-quiz?' page. 2) In the 'Look, Cover' column, **write out** the dates from the timeline for Germany and the Growth of Democracy. 3) **Write out, from memory**, what you think happened on those dates. Then check them against the timeline on the knowledge organiser. Put a 'tick' or a 'cross'. 4) If you got the answer wrong, **write in the correct answer** in the 'Correct' column.
Option A 06/02/2024 Option B 20/02/2024	**Mind maps** 1) Write out **"People and Places"** in a bubble in the centre of your section. 2) Off of the main bubble, write out important categories to organise your ideas. E.g. Himmler 3) Then add your knowledge off of these branches. You might even be able to make connections between them. 4) Once made, then redraw as many of the connections as possible from memory. Correct any errors.
Option A 27/02/2024 Option B 05/03/2024	**Explaining an idea further** 1. Explain the different types of résistance to the Nazi party. In your answer, try to use the words **because, but**, and **so.** (See how to page for help)
Option A 12/03/2024 Option B 19/03/2024	**Flash cards** 1) On one side of the flashcards : Danegeld, Danelaw, Primogeniture, push factor, pull factor, conquest, empire, monasteries . You should have 8 flashcards in total. 2) On the other side, **write out the definitions** for each word using the knowledge organiser page. 3) Now put them in a pile. For each card, **test if you can remember the definition**. Tick the flashcard if you get it right, a cross if you get it wrong. 4) When you get the card right, place it in the 'correct' pile. When you get it wrong, place it in the 'wrong' pile. Repeat until all cards are in the 'correct' pile.

Subject: Geography Section A: Natural hazards Tectonic hazards

Section A: Key Vocabulary

Tier 2 vocabulary	Definition
Immediate responses (v)	The reaction of people as the disaster happens and in the immediate aftermath.
Long-term responses (v)	Later reactions that occur in the weeks, months and years after the event.
Monitoring (v)	Recording physical changes, such as earthquake tremors around a volcano, to help forecast when and where a natural hazard might strike.
Planning (v)	Actions taken to enable communities to respond to, and recover from, natural disasters, through measures such as emergency evacuation plans, information management,
Prediction (v)	Attempts to forecast when and where a natural hazard will strike, based on current knowledge. This can be done to some extent for volcanic eruptions (and tropical storms), but less
Primary effect (n)	The initial impact of a natural event on people and property, caused directly by it, for instance the ground buildings collapsing following an earthquake.
Protection (v)	Actions taken before a hazard strikes to reduce its impact, such as educating people or improving building design.
Secondary effect (n)	The after-effects that occur as indirect impacts of a natural event, sometimes on a longer timescale.
Tier 3 vocabulary	**Definition**
Conservative plate margin (n)	Tectonic plate margin where two tectonic plates slide past each other.
Constructive plate margin (n)	Tectonic plate margin where rising magma adds new material to plates that are diverging or moving apart.
Destructive plate margin (n)	Tectonic plate margin where two plates are converging or coming together and oceanic plate is subducted.
Earthquake (n)	A sudden or violent movement within the Earth's crust followed by a series of shocks.
Tectonic hazard (n)	A natural hazard caused by movement of tectonic plates.
Tectonic plate (n)	A rigid segment of the Earth's crust which can 'float' across the heavier, semi-molten rock below. Continental plates are less dense, but thicker than oceanic plates.
Volcano (n)	An opening in the Earth's crust from which lava, ash and gases erupt.

Section B: Key Learning

Tectonic plate margins

Constructive plate margins	This is where two plates are moving apart. As it breaks through the overlying crust it causes earthquakes. The magma here is very hot and fluid, it will flow a long way before cooling, resulting in typically broad and flat shield volcanoes.
Destructive plate margins	This is where two plates are moving towards each other. The oceanic dense plate subducts beneath the less dense continental plate. Friction between the plates causes earthquakes. As the oceanic plate moves downwards it melts. The magma here is very viscous (like jam) and forces its way to the surface to form steep sided composite volcanoes. Eruptions are often very violent and explosive.
Conservative plate margins	This is where two plates are sliding alongside each other. Friction between the two plates then causes earthquakes as stresses gradually build up over many years, they are released suddenly when pressure builds up and plates slip or shift. There are no volcanoes here.

Why people live in areas of hazard risk?

+ People living in poverty ridden areas have more important things to think about like food, money, security and family.

+Plate margins often coincide with very favourable areas for settlement, such as coastal areas where ports have developed.

+ Fault lines associated with earthquakes allow water supplies to reach the surface. This is important in dry desert regions.

Better building design can withstand earthquakes so people feel less at risk.

+ Volcanoes can bring benefits such as fertile soils, rocks for building, rich mineral deposits, hot water and geothermal energy.

+ More effective monitoring of volcanoes and tsunamis waves enable people to receive warnings and evacuate before events happen.

Section C: Example

L'Aquila Earthquake (HIC) 5th April 2009– Magnitude 5.8

Primary effects	Secondary effects
291 people died 1,500 people seriously injured Landslides triggered 11,000 buildings destroyed including the cathedral	58,000 people homeless Businesses out of action 28,000 people without access to university Damage to roads People mentally affected Bridges destroyed
Immediate responses	**Long-term responses**
11,000 volunteers helped with the aftermath. 34,000 homeless housed in 161 tented settlements. Red Cross set up a field kitchen, providing 10,000 meals a day. Italian Sky stopped billing people and provided TVs to homeless camps.	30,000 short-term hardship grants worth 2.4 billion Euros. Government to pay for 100% of rebuilding and reconstruction. New towns to be funded by the Government, to generate economic growth.

Haiti Earthquake (LIC) 12th January 2010– Magnitude 7

Primary effects	Secondary effects
316,000 people killed and 1 million homeless. 250,000 homes and 30,000 other buildings were destroyed or damaged. Transport links, Hospitals and schools damaged. Prison destroyed inmates escaped	1 in 5 people lost their jobs. Hospitals and morgues became full and bodies piled up on the streets. Diseases such as cholera became a problem. Difficult to get aid because of transport issues. Poor sanitation Looting
Immediate responses	**Long-term responses**
$100 million in aid by USA $330 million in aid from EU 810,000 people in aid camps 115,000 tents provided Healthcare supplies Rescue each other 4.3 million provided with food rations	98% of the rubble on the roads still needed clearing. 1 million without houses after a year. Special cash/food for work projects. Temporary schools Water and sanitation supplied for 1.7 million people

Introduction

Location and importance of Nottingham

•Biggest city in East Midlands.

•City is on the northern side of the River Trent, an important transport route.

•Lies just east of the M1, which leads directly to London (capital city); East Midlands airport important for trade and passengers.

•TNC headquarters: Boots, Experian, Eon.

•Two internationally recognised universities: University of Nottingham and Nottingham Trent.

•Universities, research, tourism, culture, media, communications.

•2015 – UK home of sport: football, cricket, ice hockey, water sports.

Impacts of migration

•International migrants tend to move to inner city e.g. Arboretum and Radford.

•High Pakistani populations in Leen Valley, Berridge and Sneinton.

•City attractive to migrants because of accessibility, cheap housing, growing ethnic community.

•Pressure on maternity services, overcrowded schools and old terraced houses not big enough for large families.

•4th biggest student population in UK: 60,000. Few stay after graduating, not contributing to economy and students don't pay council tax, leading to social problems.

Opportunities

Cultural Mix (Social)	•Wide variety of languages, cultural shops, world foods, religious festivals, culture: art, film, literature, music.
Recreation and Entertainment (Social)	•Nightclubs and bars for students. •Shops and shopping centres. •Cinemas, parks, sports.
Employment (Economic)	•TNCs: Boots headquarters (links to medicine, university a research centre for medicine – MRI scanner and ibuprofen first created in Nottingham). •Finance: Eon, Capital One.
Integrated transport systems (Social and economic)	•NET tram network extended out to west and north of city. •Bus routes connecting most suburban and rural areas. •HS2 planned to stop in Toton in west (near tram and M1). •Nottingham City Bikes – encouraging eco
Urban greening (Environmental)	•ERDF funding (for deprived areas) funded city parks. •2 for 1 replacement policy on trees when felled. •Wildflower meadows grown on parks and road verges to enhance biodiversity. •Improved access to parks and improved facilities.

Challenges

Urban deprivation	•In the top 10 most deprived areas in England and Wales. •30% of children in city live in poverty.
Inequalities in housing, education, health and employment	

	Rushcliffe	Nottingham city
Life expectancy	M – 83.7 F – 87.8	M – 77.0 F – 81.0
Unemployment	3.4%	4.5%
5 GCSEs	88.4%	62.5%
Average yearly	£25,371	£18,183

Environmental dereliction	•De-industrialisation – many abandoned factories and industrial areas. •Air pollution – health issues.
Building on brownfield / greenfield sites	•Housing shortages mean Greater Nottingham has a target of 50,000 new homes by 2020. •Brownfield sites – old industry needs demolishing, less urban sprawl, public transport there, land expensive, can improve environment. •Greenfield sites – poor public transport, increases urban sprawl, loss of countryside, loss of habitats. •10% of Nottingham's land used to be greenbelt but is now developed.
Waste disposal	•25% to landfill causing methane.
Impact of urban sprawl on rural urban fringe and growth of commuter villages	•Commuter towns on the rural-urban fringe growing in size. •Bingham has grown in size due to position on junction between A52, which leads to Nottingham and Derby, and A46, which leads to Leicester. •9 miles east of Nottingham, 1500 new houses being built and proposed business park.

Example of an urban regeneration project: Broadmarsh shopping centre

Reasons why the area needed regeneration	•Eyesore – old, ugly shopping centre and car park •Not an attractive entrance to the city centre as it sits between the train station and the Market Square •Other areas of the CBD have been regenerated (Cornerhouse, Lace Market, Victoria Centre) which has left Broadmarsh increasingly derelict.
Main features of the project	•'Gateway to the city' •Pedestrianised streets and walkways from the train station to Lister Gate •Car park demolished to make way for new shops and businesses •Cinema and food court •State of the art shopping centre •New and improved bus station •Providing jobs

Section A: Key Vocabulary

Tier 2 vocabulary	Definition
Climate (n)	The weather conditions in an area over a long period.
Characteristics (n)	A feature of an environment or living thing.
Distinctive (a)	A characteristic (s) of an environment or area which makes it different from other environments.
Opportunity (n)	A chance to develop an area.
Challenge (n)	A factor which makes development more difficult.
Tourism (n)	Travelling for the purpose of interest.
Wilderness (n)	Unspoilt and remote regions of the world.
Fragile (a)	Easily damaged.
Inaccessibility (a)	Not easy to get to or move around
Tier 3 vocabulary	**Definition**
Polar (n)	The regions of Earth surrounding the North and South Poles.
Tundra (n)	The flat, treeless Arctic regions of Europe, Asia and North America.
Biodiversity (n)	The variety of life in the world or particular habitat.
Infrastructure (n)	A compound or substance, especially one which has been artificially prepared or purified.
International agreement (n)	To ascertain the size, amount, or degree of (something).
Conservation (n)	A procedure intended to establish the quality, performance, or reliability of something, especially before it is taken into use.

Section B: Key learning

Interdependence of climate, permafrost, soils, plants, animals and people

•Nutrients from the soil move to grass and then animals. Animals help spread seeds leading to the reproduction of plants

•Low plant cover and slow decomposition means low nutrients in the soil and less ability of plants to grow. Herbivores e.g. reindeer migrate and carnivores follow.

•In summer in the Tundra the plants absorb heat and prevent permafrost thawing. Permafrost provides water for animals.

•Soil waterlogged as lower layer of permafrost does not melt. If it melts it will cause floods and release greenhouse gases.

Why are wilderness areas valuable and important to protect?

• As greenhouse gasses are released this increases the enhanced greenhouse effect.

•**Scientific study**- can study the high biodiversity in the unique environment.

•**Natural state** – last remaining areas not affected by humans.

•**Ecosystem services** (the environment provides benefits) - White snow reflects sunlight and helps regulate global temperatures.

•**Indigenous people**—live here traditionally in unique ways.

• **Use of technology** - Modern (construction) building methods / mobile phone networks in remote areas / Alaska Native Knowledge Network—an online database preserving Inuit culture.

•**Role of Governments** - Laws passed to protect areas / 1964 Wilderness Act—areas are protected from development

•**International agreements** - Multiple countries agree to certain ac-

Strategies to balance economic development and conservation

Section C: Case study—Alaska

Development opportunities in Alaska

Mineral extraction (removal of solid mineral from the ground) Oil in Prudhoe Bay, North Slope, Alaska. Trans Alaskan pipeline travels 1287km to Valdez. / Oil and gas – 90% Alaska's earnings ($14 billion) and 1/3 of jobs / Gold –1/5 of mining wealth. Tintina gold belt across Alaska

Energy (resources to provide power) More than 50 hydroelectric power (HEP) plants supply 1/5th of their electricity / Geothermal energy being harnessed including Chene Hot Springs near Fairbanks

Fishing Commercial fishing provides 80,000 jobs and as much as $6billion to the economy annually.

Tourism 1-2 million visitors per year making one of the biggest employer / 60% of visitors in summer on a cruise.

Challenges of developing Alaska

Extreme temperature - average temperature is low with a record of –80℃ in Fort Yukon in 1971 / Permafrost (permanently frozen ground) is widespread

Inaccessibility few surfaced roads / snow and ice covers roads at points during the year / melting of roads in the summer makes some unpassable

Provision of buildings the heat from buildings melts the permafrost which causes buildings to subside (collapse into the ground) m,/ building materials difficult to import into some areas.

Infrastructure difficult to construct pipelines due to permafrost / waste breaks down very slowly due to the extreme cold temperatures.

Week Beginning	TASKS Year 10—Geography—Spring Term
Option A: 09/01/24 Option C: 17/01/24	**1. Tectonic hazards** Use the look, cover, write check method to test your spelling of the tier 2 and tier 3 words in section A.
Option A: 23/01/24 Option C: 31/01/24	**1. Tectonic hazards** Draw two spider diagrams to show how the primary and secondary impacts of the L'Aquila and Haiti earthquakes were different.
Option A: 06/02/24 Option C: 21/02/24	**2. Nottingham case study** Make a mind map of the challenges and opportunities which are available in Nottingham. Dual code this using images.
Option A: 27/02/24 Option C: 06/03/21	**2. Nottingham case study** Use the 'introduction' section to write a paragraph explaining why Nottingham is important.
Option A: 12/03/24 Option C: 21/03/24	**3. Cold environments** Use the look, cover, write check method to test your spelling of the tier 2 and tier 3 words in section A.
Option A: 26/03/24	**3. Cold environments** Draw a scene to show why Alaska can be challenging to develop. It must be clearly annotated.

Spanish — GCSE Module 1 — Las Vacaciones — Year 10 – Spring 1

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Section A: Key Vocabulary

Tier 3 Vocab Recap:

Plural—Reflexive—Modal verb—Direct Object Pronoun

Irregular verb—Stem-changing verb—Imperfect tense—

Reflexive Opinions—Adjectival Agreement

Tier 3 Vocabulary	Definition
Inference (n)	A conclusion reached on the basis of evidence and reasoning. When you read between the lines and look for clues in a text.
Distractor (n)	A person or thing that distracts—usually a plausible but incorrect answer given as a choice in a multiple-choice test.

Tier 1—Key Questions	Meaning
¿Adónde vas de vacaciones normalmente?	Where do you go on holiday normally?
¿Adónde fuiste de	Where did you go on holiday last year?
¿Adónde vas a ir el próximo año?	Where are going to go next year?

Tier 1—Key Nouns (n) Facilities

Un hotel (hotel)	Un bar (a bar)
de 5 estrellas (5 stars)	Un restaurante (restaurant)
Un albergue juvenil (youth hostel)	Una piscina (a pool) cubierta/climatizada (indoor/heated)
Una pensión (B&B/guest house)	Un aparcamiento (a car park)
Un camping (campsite)	Un gimnasio (a gym)
Un parador (a luxury hotel—ran by the government)	Con balcón/vistas al mar (with balcony/sea views)
Una habitación (a room)	Una lavandería (a launderette)

Section B: Key Grammatical Points

Key verbs

3 tenses: In Spanish the most common tenses used are past, present and future. To get a good grade in Spanish, you must be able to write in three time frames, using these three main tenses securely.

Key verbs	Past	Present	Future
ir	fui	voy	voy a ir
alojarse	me alojé	me alojo	voy a alojarme
comer	comí	como	voy a comer
jugar	jugué	juego	voy a jugar
nadar	nadé	nado	voy a nadar
visitar	visité	visito	voy a visitar
hacer	hice	hago	voy a hacer
montar	monté	monto	voy a montar
ver	vi	veo	voy a ver
descansar	descansé	descanso	voy a descansar
viajar	viajé	viajo	voy a viajar
sacar (fotos)	saqué	saco	voy a sacar
tomar (el sol)	tomé	tomo	voy a tomar

Concepts you have seen before: The formation of the present, past and future tenses as well as the use of time expressions to add detail.

Section C: EATTACO Vocabulary

Time phrases

Useful time phrases in the present tense	
normalmente	normally
a veces	sometimes
nunca	never
primero	firstly
segundo	secondly
luego	then
después	after
más tarde	later
finalmente	finally
por la mañana	in the morning
por la tarde	in the afternoon
por la noche	in the evening

Useful time phrases in the past tense	
el año pasado	last year
hace dos años	two years ago
la semana pasada	last week
ayer	yesterday
anoche	last night

Useful time phrases in the future tense	
la próxima semana	next week
el próximo mes	next month
el próximo año	next year
en el futuro	in the future

Spanish— GCSE Module 2—El insti—Year 10— Spring 2

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Section A: Key Vocabulary

Tier 3 Vocab Recap:

Plural—Reflexive—Modal verb—Direct Object Pronoun

Irregular verb—Stem-changing verb—Imperfect tense

Tier 3 Vocabulary	Definition
Reflexive opinions	Expressing an opinion in Spanish follows a reflexive pattern. This means the verb is done to some-
Adjectival agreement	Nouns in Spanish have a gender: masculine and feminine. When describing a noun in Spanish, the adjective has to agree gram-

Tier 1—Key Questions	Meaning
¿Cuál es tu asignatura favorita?	What is your favourite subject?
¿Qué piensas del uniforme escolar?	What do you think of the school uniform?
¿Estás de acuerdo con las reglas?	Do you agree with the rules?

Tier 1—Key Nouns (n) Subjects

El inglés	(English)	La tecnología	(D.T)
Las matemáticas	(maths)	La música	(music)
Las ciencias	(science)	La historia	(history)
El español	(Spanish)	La geografía	(geography)
El francés	(French)	La religión	(R.E)
El dibujo/ arte	(art)	La informática	(I.T)
El teatro	(drama)	La educación física	(P.E)
La química	(chemistry)	La física	(physics)

Section B: Key Grammatical Points

Reflexive opinions

Opinions in Spanish aren't literal translations 'I like' and ' I don't like'.
The opinions in Spanish are reflexive, so me gusta literally means 'it pleases me'

	Reflexive pronoun	+ Opinion phrases
I/Me	Me	...gusta—like ...mola—love ...chifla—love ...encanta—love ...apasiona—passionate about ...fascina—fascinated in **To make an opinion negative add 'no' before the reflexive pronoun**
You	Te	
He/She/It	Le	
We	Nos	
You (pl.)	Os	
They/ Them	Les	

Adjectival agreement (Recap from Y7/Y8)

The adjective endings need to match the noun it is describing in gender and in number (Is it masculine or feminine? Is it singular or plural?)

Adjective ending	Masculine (singular)	Feminine (singular)	Masculine (plural)	Feminine (plural)
-o/a	serio	seria	serios	serias
-or	hablador	hablad**ora**	hablad**ores**	hablad**oras**
-e	inteligente	inteligente	inteligent**es**	inteligent**es**
-ista	optim**ista**	optim**ista**	optim**istas**	optim**istas**
consonant	fiel	fiel	fiel**es**	fiel**es**

Me gusta vs Me gustan (Recap from Y7&Y8)

As mentioned above, me gusta does not literally translate to ' me gusta' but to 'it pleases me'. When we are talking about something plural that we like, we have to add an 'n' to the verb

E.g. — Me gusta el chocolate—I like chocolate (singular)

Section C: EATTACO Vocabulary

Tenses / Verbs (v)

School day vocabulary

La clase	The lesson
Empieza / Inicia	Starts
Termina	Finishes
Dura	Lasts
Estudio	I study
Estudiamos	We study
Llevar	**To wear**
Llevo	I wear
Llevé	I wore
Llevaba	I used to wear
Me gustaría llevar	I would like to wear
Voy a llevar	I am going to wear
Tengo que llevar	I have to wear

Higher Level Opinions

Lo bueno es que	The good thing is that
Lo malo es que	The bad thing is that
Lo mejor es que	The best thing is that
Lo peor es que	The worst thing is that
Lo que más me gusta es (que)	The thing I like the most is (that)...
Lo que menos me gusta es (que)	The thing I like the least is (that)...
Es más...que...	It's more...than...
Es menos...que...	It's less... than...

Concepts you have seen before: School subjects and adjectival agreement as well using opinion phrases to add detail.

Week	TASKS Year 10 —Spanish—Module 1 and 2—Las Vacaciones and En el insti—Spring 1 and 2
(10A— 09/01/24)	**Flashcards — Module 1—Las Vacaciones—Spring Page 1 (Holidays)** Make flashcards for the verbs in past/present/future (Section 2). Write the Spanish on one side and the English on the other side. Make sure you revisit these every day during the week, little and often, so that you don't forget them. Challenge: Write 5 sentences using any of these verbs. Can you make complex sentences using two of these time frames in one sentence?
(10A— 23/01/24)	**Q+A — Module 1—Las Vacaciones—Spring Page 1 (Holidays)** Answer these Key Questions from Section 1 in present/past tense: *¿Adónde vas de vacaciones normalmente?* *¿Adónde fuiste de vacaciones el año pasado?* Aim to write 40 –90 words for each answer. Use your EATTACO and vocab book to help you. Use the vocab in your KO to help you.
(10A— 06/07/24	**Q+A — Module 1—Las Vacaciones—Spring Page 1 (Holidays)** Answer the final Key Question from Section 1 in the near future tense: *¿Adónde vas a ir el próximo año?* Aim to write 40-90 words for each answer. Use your EATTACO to help you. Use the vocab in Section 3 to help you.
(10A— 27/02/24	**Flashcards — Module 2—El Insti—Spring Page 2 (School)** Make flashcards for the Tier 1 Nouns (Section 1 column) and the Higher Level Opinions (Section 3 column). Write the Spanish on one side and the English on the other side. Learn these ready for a vocab test. Make sure you revisit these every day during the week, little and often, so that you don't forget them.
(10A— 12/03/24	**Look, Cover, Write, Check — Module 2—El Insti—Spring Page 2 (School)** Explain the Reflexive Opinions and write out the table (Section 2). Then use the method 'Look, Cover, Write, Check' to learn the key verbs in the reflexive opinions. Can you explain how they change to plural as well? (Section 2) Challenge: Construct 5 full sentences using these verbs and some time phrases from your EATTACO.
(10A— 26/03/24	**Mind Map and Q+A — Module 2—El Insti—Spring Page 2 (School)** Make a mind map answering the key question *¿Cuál es tu asignatura favorita?'* Add all the subjects and adjectives you have learned and add them to your mind map. Also note down any important verbs that would help you answer this question. Challenge: Construct a short paragraph of 40-90 words answering the question. Use your EATTACO and vocab book to help you.

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Subject: Sociology Year: 10 Spring Term— Family

Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Family diversity	The increasing number of different types of family in the UK. For example, same sex, lone-parent and reconstituted families are all on the increase.
Postmodernism	A perspective that believes that we have more freedom and choice to be individuals. For example, in the family we have more freedom to be lone-parents or in a same sex family as we are not bound by structures such as stigma and religion like were in the past.
The Cereal Packet Family	The media's idea of the 'ideal' family, regularly presented in adverts and in programmes. This family is the traditional or modern nuclear family, with opposite sex parents and children, usually a boy and a girl.
Divorce Laws	Changes in the law that have made divorce easier or more difficult, such as The Divorce Law Reform Act 1969, The Marriage Act 1994 and Legal Aid laws
Feminist view of cohabitation	Feminists believe the rise in cohabiting couples is positive for society, as women are less likely to be in a patriarchal relationship if they are not married.
Changes in the position of women	Since the 1970s women have more rights and power now. Women are more likely to work, with 50% of the workforce being made up of women. Due to the Equal Pay Act 1970, women are entitled to equal pay, and so more women have successful careers than ever before.
The Rise of Singlehood	More people than ever before are choosing to be single. This has led to more single person households. Also the rise in divorce has led to more men living alone, and the difference in life expectancy between men and women has meant that elderly women are also more likely to live alone.
Tier 2 vocabulary	**Definition**
Content analysis	A research method used to spot trend and patterns in media, such as different family types or gender roles in adverts.
Divorce	The legal dissolution of marriage
Marriage	The legal union of two people in a romantic relationship
Secularisation	The decline of religion in society. This has caused an increase in many different types of family.
Stigma	A mark of social shame or disgrace. A decline in stigma has caused an increase in many different types of family.

Section 2: Important ideas in Family

Key concepts

Questions:

1. Why is divorce on the increase?

2. Is the family in decline?

Answers:

1.The are many reasons why divorce is on the increase in the UK. For example, laws have made it easier for people to get a divorce. Blame of one partner is no longer needed, due to the most recent law in 2020 that ended the 'blame game'. In addition, secularisation has increased the divorce rate, as many people no longer follow the expectations of religion, such as staying married for life. There is also less stigma attached to a divorce, it was once seen as unacceptable in society to divorce however now it is more common. Celebrities and even the royal family divorce, which makes us believe it is more acceptable. Women's position in society has also changed and they are more likely to be financially independent… however there is still a gender pay gap.

2. There are less nuclear families now than there were 50 years ago. More people are getting divorced, having less children and also choosing to remain single. The Rapoports suggest there is family diversity and that there is not one dominant family type in the UK. Postmodernists suggest that family diversity shows people are breaking free from traditional structures of shame, religion and stigma. However, remarriages are high, Chester suggests that people still aspire to be part of a nuclear family and also most people are part of one. Also there are different families emerging, such as reconstituted, same sex and lone parent.

Section 3: Case Studies and Theories

Sue Sharpe

Sue Sharpe did research on women's priorities in the 1970s and 1990s. In the 1970s young women's priorities were to find love, marriage and have children. However, by the 1990s young women's priorities had changed to education and a career.

Chester

Robert Chester is a functionalist who said that family diversity was limited. He suggested that although there was some family diversity, most people do end up being part of a nuclear family at some point in their life, whether modern or traditional. Chester said that cohabiting couples go on to marry, and that divorcees marry too, and these families have similar roles to nuclear families. He also suggested that many of us aspire to be part of a nuclear family, meaning that they are still the main family type.

Anthony Giddens

Anthony Giddens believes that divorce is on the increase due to the unrealistic expectation that we put on marriage. In society couples believe that their marriage will give them lifelong intimacy and satisfaction. When married couples do not find this in their marriage, as marriages can also include conflict, they then divorce. These unrealistic expectations have been partly blamed on the media's portrayal of marriage such as the idea of 'happy ever after'

Date	Task Sociology—Year 10 Spring Term—School
10B: 16/01/24 10C: 17/01/24	Cover, look, write, check tier 2 vocabulary
	Write a PEED paragraph to show Giddens ideas about the rise in divorce. What could you write for development?
10B: 30/01/24 10C: 31/01/24	Pick out 3 tier 3 vocabulary definitions. Summarise them in your won words. Can you add your own evaluation/ development to these ideas?
	Read through Sue Sharpe's research. Write a PEED to explain it, using your own evidence. You may want to google this for some ideas if you need to.
10B: 20/02/24 10C: 21/02/24	Make research flash cards for all three pieces of research in section 3. Test yourself to see if you can remember them.
	Read through the tier 3 vocabulary. Can you categories them into different categories? You choose the titles of thee categories.
10B: 05/03/24 10C: 06/03/24	Read through section 2. Which arguments do you think are the most convincing both for and against the question about why divorce is on the increase? Why?
10B:19/03/24 10C: 20/03/24	Write a plan for the 8 mark question: Explain reasons why divorce is on the increase —remember you need 2 reasons for 8 markers

H&SC—Year 10 :Term Autumn 1

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Section A: Key vocabulary	
Tier 3	**Definition**
Infancy (n)	0-2 years. The development of fine and gross motor skills.
Early Childhood	3-8years. Learning to play (solitary, parallel, social).
Adolescence (n)	9-18years. Peer groups develop, emotions are effected by hormones, building relationships, the
Early Adult-	19-45years. Starting a family, having attained full growth or maturity.
Middle Adulthood (n)	46-65years. An individual in the transitional age span between young adult and elderly, potential onset of midlife crisis..
Later Adult-	65+years. Importance of finding meaning and satisfaction in life, potential onset of dementia.

Tier 2	Definitions
Relationship changes (n)	Altering the way that two or more people connect with each other.
Life circumstances (n)	Factors that play a part in determining aspects of an individual's life.
Expected life events (n)	A major event that changes a person's status or circumstances, such as giving birth, marriage, divorce, death of spouse, loss of job.
Unexpected life events (n)	Events that take individuals by surprise as they do not know that they are going to happen, they are unplanned. Some examples are having

Section B: Important Ideas	
Puberty (n)	A change in the body where the brain releases hormones and sexual characteristics develop.
Menopause (n)	Physiological changes including the gradual end of menstruation and shrinkage of sexual organs.
Gross motor skills (n)	Gross motor skills are used to control larger muscle groups in the body.
Fine motor skills (n)	Fine motor skills are used to control hands and fingers.
Milestones (n)	A significant stage or event in the development of something.
Abstract thinking (n)	Thinking about something that might not even be there or even exist.
Bonding (v)	Forming an attachment with a parent or carer.
Attachment (n)	Attachment is the close emotional connection between people.
Self-esteem (n)	How much a person likes/values/accepts/ themselves.
Contentment (n)	Contentment is about feeling satisfied and happy with what you have and what you have achieved.
Self-image (n)	Self-image is how an individual will think and feel about themselves and how they imagine other people see them.

Words and themes you have seen before:

Command words: describe , identify, evaluate , analysis, critically analyse

Section C:

Pick a case study

Case Study 1: Zach has started to hang out with a new friendship group, and his parents have become worried that he maybe smoking cannabis. Zach's behaviour has changed at home, grades have not been as good at school and his parents smell the cannabis scent on him. What support would you offer Zach?

Case Study 2: Sarah has recently recovering from a hip operation and has found that she is lacking in mobility and is starting to feel isolated from friends and that everyday tasks are becoming at issue due to having a wheelchair. What support could you offer Sarah?

Case Study 3: Pete 48, has been informed that in Jan, he will be made redundant from his job. He has worked for the Post Office since he was 16 and is very anxious about the redundancy. What are the positives and negatives of being made redundant?

H&SC— Year 10: Term Autumn 2

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Section A: Key vocabulary

Physical factors

Genetic disorders:

Genetic disorders include: Downs syndrome, cystic fibrosis, Tourette's and haemophilia. It can cause:

Distress Feel different from their peers May lead to social isolation	Infections Mobility issues Missed school

Predisposition to other conditions:

For example, coronary heart disease can be caused by a combination of both genetic and environmental factors. You can inherit heart disease, but lifestyle factors such as alcohol, diet, and smoking can increase risk

Ill health

Illness may be acute (short-term) or chronic (long-term) A chronic illness may cause other injuries, for example if you suffer from osteoporosis, you are more likely to suffer a broken bone.

Diet

Effects of overeating/undereating

Obesity Heart disease Eating disorders	High blood pressure Stroke Anaemia/rickets	Cancer Depression Tiredness

Exercise

Positive effects of exercise:

Improve strength Improve flexibility Improve stamina	Relieve stress Improve concentration	Increase your socialisation Maintain weight

Alcohol

Negative effects of alcohol:

Heart disease Cancer Stomach ulcers	Weight gain Liver disease Risk of stroke	Depression Hangovers Poor judgement

Nicotine

Negative effects of smoking:

Cancer Infertility Heart disease	Emphysema Bronchitis Stroke	Pneumonia Greater chance of getting ill

Substance abuse

Possible effects of taking illegal drugs:

Addiction Paranoia Aggressiveness	Low self-esteem Mood swings Anxiety	Insomnia Relationship issues Mental health issues

Section B: Important Ideas

Environmental factors

Positive effects

Good location of housing will be close to amenities, outdoor space, work, relaxing and quiet
Outdoor space allows us to meet friends and exercise
Good living conditions provides warmth, space, prevents illness and stress
Access to facilities supports leisure activities

Negative effects

Air pollution can irritate the eyes and severely affect people with asthma
Noise pollution can cause high blood pressure, stress and sleeplessness,
Poor living conditions may be cold, damp and dirty, cramped, and a greater chance of illness
High level of traffic increases the risk of accident
Building security may increase stress and anxiety

Social emotional and cultural factors

Positive effects

Socialise regularly gives a feel good factor
Spend time with others to make friends and interact with others
Supportive relationships an reduce stress, make us feel secure, improve confidence, improve self-image and feel a belonging
Part of a community allows social integration & opportunity to make friends
More educated individuals are more likely to be aware to look out for signs and symptoms and which services are available
Being religious can give a support network, give a sense of pride and a greater sense of enlightenment

Negative effects

Unsupportive relationships can make us sad and upset, make us feel lonely and insecure, give us stress and anxiety
Isolation can be emotionally upsetting & make you feel threatened
Feeling sad or worried because of bereavement
Stress through work, relationship issues, redundancy, stuck in traffic
Stress can cause, sleeplessness, high blood pressure, anxiety, insecurity, headaches, heart disease, loss of appetite
Gender, age, education and culture may affect the willingness to seek help and access services

Economic factors

Positive effects

Wealth allows:

A healthy diet Learning opportunities Socialise with friends	Make new friends Sense of security Better housing	Raise self-esteem Buy luxuries Have a garden

Negative effects

Poverty allows:

More chance of being ill Fewer social opportunities Miss out on school trips	Do less well at school Earn less money when adults

Section C

Impact of life events

Positive effects	Negative effects
Starting school/new job	
Opportunities to build new friendships and relationships Develop independence & new skills Improve self-esteem Learn new skills	Anxiety about learning new routines and building relationships You may feel insecure when leaving parents for the first time
Marriage/partnership	
Feel secure and content Develop intimate relationship Improve self-esteem	Loss of independence Have to share
Moving house	
Excited by a new challenge Develop new friendships Discover new areas	Anxiety and stress at the physical and mental pressure of moving Possible loss of close friends
Becoming a parent	
Feel confident Improved emotional wellbeing Develop a strong attachment	Worry about responsibility Feel tired Loss of independence
Retirement	
Reduced stress Socialise more with family/friends More time for activities/hobbies	Loss of relationships Negative self-image and purpose Lose fitness and mobility May feel isolated from work friends
Accident/injury or ill health	
N/A	Loss of mobility Depression/ self-confidence Restriction in social activities
Bereavement	
N/A	Low self confidence Loss of friends Unable to cope/function at work Depression
Exclusion from school	
May remove stress that caused exclusion	Low self-esteem Loss of friends/loneliness May effect learning
Imprisonment	
Opportunity to Learn Develop new skills Make different life choices Improves self-awareness	Depression and low self-esteem Fear and anxiety Loss of social contact/feels isolated Loss of independence
Redundancy	
Opportunities to take on new challenges and train for a new job Increased opportunity to socialise as more free time	Can lower self-image & self esteem Feel isolated from work friends Loss of earnings impact on lifestyle choices and ability to socialise

Week Beginning	TASKS— Year 10—H&SC
10B: 16/01/24 10C: 17/01/24	Using Tier 3 words—Bullet point the differences between infancy and later adulthood (e.g. Infancy, physical growth, Later adulthood physical decline)
10B: 30/01/24 10C: 31/01/24	Using Tier 2 words— chose 1 (One) and write down one example and three positive and three negatives. (e.g. unexpected life events, Divorce, 3 Positive, 3 negatives)
10B: 20/02/24 10C: 21/02/24	Section B: answer one of the case studies using some of the key words in section 2
10B: 05/03/24 10C: 06/03/24	Using Section C: Answer 1 (one) of the case studies
10B:19/03/24 10C: 20/03/24	Section A—Pick a factor and write a small paragraph on how it would impact a persons P.I.E.S

Art—Year 10 Spring Term—GCSE Coursework Project 'Change'

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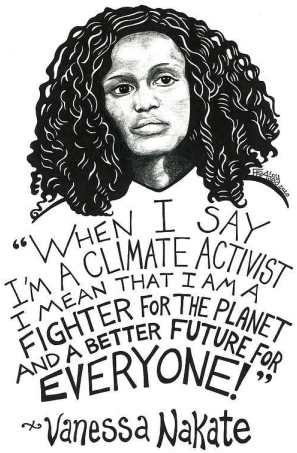
Section A: Key vocabulary	
Tier 3 Vocabulary	**Definition**
Observation (n)	Drawing from looking or studying.
Illustration (n)	A drawing, painting or print that visually represents a message or text.
Response (n)	Creating a piece of art in the style of an artist using your own images.
Study (v)	Copying an artist's work to gain understanding of their process.
Sculpture (n)	A 3 dimensional artwork in any form.
Media (n)	Materials that artists use to make work.
Tier 2 Vocabulary	**Definition**
Analysis (n)	The examination of the "form" of the artwork, meaning its visual elements.
Context (n)	The circumstances that form the setting for an event, statement, or idea.
Experimentation (n)	When new ideas are being explored, trying out new and different media or techniques.
Investigation (n)	A formal enquiry or study.

Section B: Assessment Objectives	
AO1	Develop ideas through investigations informed by contextual and other sources, demonstrating analytical and cultural understanding.
AO2	Refine ideas through experimenting and selecting appropriate resources, media, materials and techniques and processes.
AO3	Record ideas, observations and insights relevant to their intentions in visual and/or other forms.
AO4	Present a personal, informed and meaningful response demonstrating analytical and critical understanding, realising intentions and, where appropriate, making connection between visual, written or other elements.

Section C: Artist Information
Rick Frausto
"Through my work I strive to contribute to a shift in consciousness that leans towards a more balanced, harmonious, and awakened world." Environmental and social artist, **Rick Frausto**, works in the mediums of sculpture and pen & ink illustration His work has been featured in both solo and group exhibitions at the L.A. Municipal Art Gallery, Long Beach Museum of Art and many more. Each piece is created with the intention of raising awareness around the important issues of our times.


Week Beginning (DD/MM/YYYY)	TASKS Year Group—Subject—Topic—Term/Half-Term
10B: 16/01/24	Read section A: Learn the definitions for the tier 3 vocabulary through making flashcards or using look, cover, write, check and correct.
10B: 30/01/24	Read section B: Using your assessment booklets carefully label these tasks with the correct assessment objective that they would meet and why. Artist research page, Mind map, Final piece, Observational drawing.
10B: 20/02/24	Read section C: Analyse the Rick Frausto Illustration using the formal elements.
10B: 05/03/24	Read Section B: Using the formal definitions and the word images, write the assessment objectives in your own words. Try to fit your definition for each one into a sentence or just a few words.
10B: 19/03/24	Read section C: Give your opinion about Rick Frausto's work and remember to say why the work is successful.

Computer Science— Year 10 Spring Term—1.4 Network Security

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Section A: Key vocabulary	
Tier 3 Vocabulary	**Definition**
Malware (n)	Malicious software designed to do damage to files or data.
Phishing (n)	Fraudulent emails which trick people into revealing personal information.
Brute force attack (v)	A trial and error method of attempting passwords. Automated software is used to generate a large number of guesses.
Denial of service attack (v)	Flooding a server with so much traffic it is unable to process requests.
SQL injection (n)	A hacking technique used to view or change data in a database by inserting SQL code instead of data into a web form.
Penetration testing (v)	Testing designed to check the security and vulnerabilities of a system.
Firewall (n)	A program used in a network to block traffic from unwanted external sources.
Encryption (n)	Data is translated into code which only someone with the correct key can access, unauthorised users cannot read it.
Tier 2 Vocabulary	**Definition**
Network Policy (n)	Rules put in place on a Local Area Network by a systems administrator. They control aspects such as what certain types of users are allowed to / what they are allowed to access etc.
Interception (n)	To take or interrupt before something arrives
User access levels (n)	Different users have different access to programs and services.
Physical security (v)	Physically locking a door, or a device away using a door, key or key code. Can protect from fire, flood or theft.

Concepts you have seen before: Passwords, Phishing, malware and physical security in Year 8. Encryption and user access levels in Year 9.

Section B: Threats to systems and networks		
Threat	**How the attack is used**	**Purpose**
Malware (n)	Viruses attach to certain files and are spread by users copying infected files. Worms self replicate without any user help and spread very quickly, Trojans are malware disguised as legitimate software.	Deleting or modifying files, locking files for money (ransomware), secretly monitoring actions (spyware).
Social engineering (n)	Uses a range of deception methods to influence people. Such as phishing emails, or scams leading to spoof websites. People are often the 'Weak point' in secure systems.	To obtain confidential information, such as personal log – ins, or sensitive company data.
Brute-force attack (v)	Uses automated software to produce hundreds of likely password combinations. Hackers may try lots of passwords against one username or vice versa.	Used to gain information from private or secure databases, websites or accounts.
DOS attack (n)	A network or website is flooded with useless traffic, making it extremely slow or completely inaccessible. Often these attacks are automated using software to send requests to the server.	The aim is to stop users from accessing a part of a network or website.
SQL Injection (n)	Pieces of SQL (Structured Query Language) are typed into a websites input box. If the website doesn't have strong input validation, then someone may be able to access the database.	To reveal, modify or delete sensitive information from a network database.

Section C: Identifying and preventing vulnerabilities		
Method	**How it works**	**What it may prevent**
Penetration testing (n)	Specialists are employed by organisations to simulate potential attacks on their network.	Used to identify possible weaknesses. The results of the testing are then reported back.
Anti-malware (a)	Designed to find and stop malware from damaging a network.	Malware such as viruses are isolated and destroyed, preventing damage to data.
Firewall (n)	Firewalls examine all data entering and leaving the network.	Unauthorised accessed is blocked, therefore preventing malware or other harmful attacks.
User access levels (n)	Network access is controlled for different groups of users. E.g. A Manager may have access to more sensitive information.	Helps limit the number of people with access to important data, so can prevent insider attacks.
Passwords (n)	Should be strong (long, combinations of letters and numbers) to be effective.	Prevent unauthorised access to networks.
Encryption (n)	Data is translated into an unreadable code.	No one can read it unless they have the key.

Computer Science—2.3 Robust Programs — Year 10 Spring term 2

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Section A: Key vocabulary	
Tier 3 Vocabulary	**Definition**
Defensive Design (n)	Defensive design is the practice of planning for contingencies in the design stage of a project or undertaking.
Input Sanitisation / Validation (n)	Ensuring data input by the user meets specific criteria before processing. Range check. E.g. between 1 and 31. Type check. E.g. number not symbol. Presence check. E.g. data has been input. Format check. E.g. postcode is LLN(N) NLL.
Authentication (n)	Verifying a user identity before they can use a program with username and password. Strong passwords over a certain length with symbols and mixed case are advised.
Maintainability (n)	A selection of techniques and methods that make code easy to debug, update and maintain.
Iterative Testing (n)	Each module of a program is tested as it is developed.
Final / Terminal Testing (n)	Testing that all the modules of a program work together as expected. Checking the program meets the expectations of the user with real data.
Syntax Errors (n)	Rules of the language have been broken. The program will not run. Variables not being declared before use. Incompatibility of variable types. E.g. sum = A Using assignments incorrectly. E.g. 2 + 2 = x Keywords misspelt. E.g. PRNT("Hello")
Logic Errors (n)	The program runs but does not give the expected output. Division by zero. Infinite loop. Memory full. File not found.
Test Data (n)	Values used to test a program, includes normal test data, boundary test data and erroneous test data.
Range Check (v)	The input must fall within a specified range. This is usually applied to numbers and dates. For example a bank payment must be greater than 0 but less than the total funds in their account.
Length Check (v)	The input must not be too long or short. For example, a surname must be longer than one letter.
Presence Check (v)	A data must be entered. For example, an item must have a quantity in a shopping basket.
Format Check (v)	The data must be in the correct format, such as entering a data in the DD/MM/YYYY format.
Type Check (v)	The data must be of a specified type, such as an integer when specifying a quantity.

Section B: Tier 2	Definition
Comments (n)	Used by a programmer to explains sections of code. Ignored by the compiler.
Indentation (n)	Indenting makes it easy to see where structures begin and end. Conditions and iterations should be indented. Code
Testing (n)	This involves testing the program under various conditions to make sure it is going to work. You need to think about what devices it could be used on and what might cause the program to crash.

Section C: Test data examples		
Type of test	**Definition**	**Example**
Normal (adj)	Test data that is typical and expected.	If a program asks for a full date and you write 15/05/2022. Data is entered in the anticipated way.
Boundary (n)	Test data located at each end of a range.	If a shopping cart allows you to add up to 20 units of one item than a boundary check would check to see if 1 and 20 would be accepted. You could also test 0 and 21 to see if they are rejected.
Erroneous (a)	Data that the program should **not** accept.	If a program is asking for a card number but you write it using letters it should reject it. For example, 8 should be accepted but eight should be rejected.

Concepts you have seen before: Program testing, Commenting code, Checking programs for logic and syntax errors.

Week Beginning	TASKS Year 10—Computer Science—System Security—Spring Term
09/01/24	Use the look, cover, write check method to test your spelling of the tier 2 and tier 3 words in section A.
23/01/24	Pick 5 words which you are struggling to recall. Draw a picture to link to the definition (duel-coding). Write the definition next to it too. From any section.
06/02/24	Make a mind map of the methods of preventing vulnerabilities in section C.
27/02/24	Create yourself a 10 question quiz using section A. Answer this on a different day and mark your answers out of 10.
12/03/24	Make flashcards stating the different types of validation checks. Ensure you spend time rehearsing with the cards.
26/03/24	Create a Frayer diagram on section C.

CNAT Sports Studies—Organising a Sports Activity Session—Spring

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Section A: Key vocabulary	
Tier 3 Vocabulary	**Definition**
Contingency Plan (n)	A backup plan for things that may need to change during a sporting session.
Competent Person (n)	This is someone with experience, qualifications and expert knowledge of sports safety.
Risk Assessment (n)	A systematic process of evaluating the potential risks that may be involved in an activity.
Session Objective (n)	This is the desired outcomes that the coach, manager or leader wishes to achieve.
Corrective Action (n)	These are the things that are put in place to try and reduce or remove any risk.
Tier 2 Vocabulary	**Definition**
Timing (n)	The timing or duration of an activity session.
Risk (n)	A situation with the likeli-
Equipment (n)	The physical implements that are needed to help deliver a sports session.

Section B: Important Ideas / Concepts	
Child Protection in Sport (CPSU) (n)	This organisation offers advise on how to organise sports activity and suggest particular **ratios** that keep children safe. There should be at least 2 adults present at all times
Emergency Action Plan (EAP) (n)	This is a written document identifying what action to take in the event of an emergency at a sporting event. Everybody involved in the organisation of a sports activity should be aware of this document.
SMART Principle (v)	This is when a coach or leader will set small targets that are specific, measurable, achievable, realistic and time bound. These help a performer progress and improve.

Section C: What leaders need to organise a Sports Activity	
DBS Check	All leaders over the age of 16 must have a DBS check. This is a governmental check that identifies if the individual is suitable to be in contact with children.
First aid	When working with children it is recommended that you know what to do if someone becomes injured. You would need to have basic training and knowing what the correct first-aid procedure is to follow.
Emergency Procedures (n)	If there is an emergency situation during a sports event there must be an emergency procedure in place. This ensures that the incident is dealt with properly to make sure everyone is safe.

Concepts you have seen before: Planning , venue, spectators.

<table>
<tr><th>Week Beginning
(DD/MM/YYYY)</th><th>TASKS
Year 10—CNAT Sports Studies—Practice Methods & Organising a Sports Activity— Spring Term</th></tr>
<tr><td>17/01/2024

Wednesday</td><td>Organising a Sports Activity — Create Flash Cards for Section A and B of the Organising a Sports Activity, Spring KO. Please make sure that you self test so that you have a thorough understanding of the key vocabulary.</td></tr>
<tr><td>31 01/2024

Wednesday</td><td>Organising a Sports Activity— Think of your favourite sport. Imagine you are coaching a group of Primary students. Create a risk assessment, copying from the table below. You should have at least 6 risks and how to deal with each hazard.
<table>
<tr><th>HAZARD</th><th>Severity of Risk?</th><th>Probability of risk?</th><th>Who is at risk?</th><th>Corrective Actions</th></tr>
<tr><td>Wet Floor</td><td>Medium</td><td>Medium</td><td>Participants & Leaders</td><td>Check surface before session and continue to</td></tr>
</table></td></tr>
<tr><td>21/02/2024

Wednesday</td><td>Create 3 Frayer Models for the ideas and concepts in Section B</td></tr>
<tr><td>06/03/2024

Wednesday</td><td>Create a Mind Map for all the vocabulary and concepts in this knowledge organiser. Think about how they interlink and relate to each other and therefore how you might improve performance.</td></tr>
<tr><td>20/03/2024
Wednesday</td><td>Looking at all sections of your KO, create a sports session plan that considers all the key words, concepts and requirements of leader. You should use diagrams to help plan your session and make it as detailed as possible.</td></tr>
</table>

GCSE PE—Components of Fitness—Spring

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Section A: Key vocabulary	
Tier 3 Vocabulary	**Definition**
Cardiovascular Endurance (a)	The ability to continuously exercise without tiring.
Muscular Endurance (n)	The ability of the muscles to repeatedly contract without tiring.
Flexibility (n)	The range of motion about a joint.
Speed (v)	The ability of the body or parts of the body to move quickly.
Strength (n)	The ability of the muscles to exert force.
Power (v)	The combination of strength & speed.
Agility (n)	The ability to change direction at speed.
Balance (n)	The ability to keep a body's centre of mass over it's base of support.
Co-ordination (n)	The ability to use different body parts together, accurately & fluently.
Reaction Time (n)	The time taken from the stimulus to the start of the response.
Tier 2 Vocabulary	**Definition**
Describe (v)	Give a clear, straightforward description which includes all of the main points.

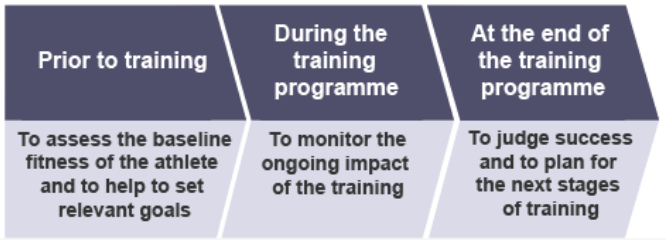
Section B:
Fitness Tests
The tests for Cardiovascular Endurance are the Multi-stage Fitness Test & the Cooper 12 minute Run.
The tests for Muscular Endurance are The Press up Test & the Sit up Test.
The test for Flexibility is the Sit & Reach Test.
The test for Speed is the 30m Sprint Test.
The test for Strength is the Hand Grip Dynamometer & One Repetition Maximum Test (1RM).
The tests for Power are the Standing Vertical Jump & Standing Broad Jump.
The test for Agility is the Illinois Agility Test.
The test Balance is the Standing Stork Test.
The test for Co-ordination is the Wall Throw Test.
The test for Reaction Time is the Ruler Drop Test.
Additional Information
VO2 MAX is the amount of oxygen an individual can take in & use in one minute.
Slow twitch muscles fibres are sometimes called Type I fibres. They can produce energy over a long period of time. They have high levels of myoglobin, & mitochondria & are used for mainly aerobic activities.
Fast twitch muscle fibres are sometimes called Type II fibres. They are used to generate short bursts of speed or strength but these fibres fatigue very quickly.

Section C:

Every sport or physical activity you can think of will need the components of fitness. However, every sport has a hierarchy of components which means that some are more important in certain activities than others.

For example in Handball, Speed may be more important than muscular endurance.

Fitness testing is a central and essential feature of all fitness training and will be used before training begins, during the training programme and again at the end of the training programme:



Concepts you have seen before:

A simple concept that has been seen before may be that having 'basic' fitness will improve your performance.

Therefore we understand that practice and training will improve final outcomes.

Week Beginning	TASKS Yr 10—GCSE PE—Components of Fitness— Spring Term
17/01/2024 Wednesday	Create a Pack of Flash Cards for all the Vocabulary Found in Section A
31/01/2024 Wednesday	Create 3 Frayer Models for the ideas and concepts in Section B
21/02/2024 Wednesday	Using your Knowledge Organiser please choose 5 Sports of your choice. For each sport, create a top 5, rank order list to identify the most important Components of Fitness. Extension task—Justify why you have made your choices.
06/03/2024 Wednesday	Create a Mind Map for all the vocabulary and concepts in this knowledge organiser. Think about how they interlink and relate to each other and therefore how you might improve performance.
20/03/2024 Wednesday	**Scenario**—You have been asked to talk to a group of Year 7 Students about the fitness and how to improve their fitness. Create a speech that is approximately 1 side of A4 long in your KO book, that describes and explains the Components of Fitness and which tests are linked with them. Your work should be in continuous pros.

Design Technology —Timbers and Boards– Summer half term 1

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Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Plane (n)	Tool used to shave off thin slivers of wood
Season (v)	Drying timber out so that it doesn't deform later
Conversion (v)	Sawing wood into usable planks
Wood grain (n)	The lines in natural wood that show the growth rings of the tree
Felling (v)	Cutting down trees
Tier 2 vocabulary	**Definition**
Dimension (n)	Measurement, usually in mm
Annotate (v)	Help communicate design ideas with notes
Function (n)	The purpose of a product
Target market (n)	The intended user
Aesthetics (n)	Appearance
Hardness (n)	Surface resistance to knocks, abrasion and scratches .
Elasticity (n)	Ability to return to original shape after being bent
Strength (n)	The amount of load or compression it can withstand
Toughness (n)	Absorption of energy through shock before splitting
Tolerance (n)	The required accuracy of a measurement

Section 2: Important ideas

Processing of timber

Timber comes from trees and trees are felled. This means they are cut down, the branches are stripped and the logs are cut to a size they can be transported by lorry to a factory.

They are then de-barked and sawn into planks (conversion). They then have to be seasoned to dry them out. This will stop them from warping and bowing (deforming). They can be air dried or seasoned in a kiln.

Types of wood

Hardwoods— come from deciduous trees (trees that lose their leaves in the winter). These woods usually take longer to mature and are therefore more expensive. Examples are beech, oak and maple.

Softwoods— come from coniferous trees (with needles instead of leaves) Examples are pine, spruce and cedar.

Manufactured boards—these are natural woods that have been glued together to get larger

Wood and the environment

Deforestation is a very serious environmental issue. If the cutting down of trees isn't managed then we could loose our forests.

The Forest Stewardship Council (FSC) manages sustainable forestry. Products and packaging with their symbol on can be confirmed as sustainably sourced.

Wood joints

Butt joint—simplest joint, not as strong as the others but quick and easy to do.

Lap joint—has a step cut out for a larger surface for the adhesive to stick to.

Finger joint—strongest joint, sometimes called a comb joint. Takes a lot of skill

Dowel joint—extra strength given by drilling holes and inserting dowel. Needs accuracy.

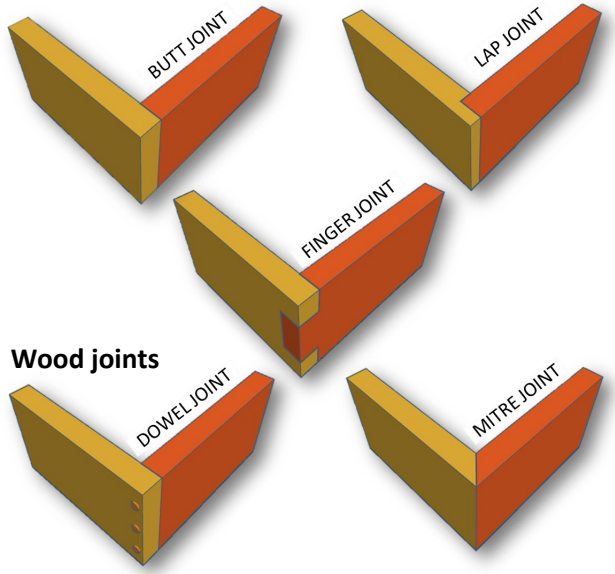
Mitre joint—often strengthened with angled staples. Looks nice but weak.

Concepts you have seen before:
Types of timber, tools and processes, sources and origins, properties of materials

Section 3: Facts/Context/Historical relevance/dates

Processing timber

Wood joints



Week Beginning	TASKS Year 10 Design and Technnology
10B: 16/01/24 10C: 17/01/24	Task 1: Learn five Tier 3 vocabulary terms using the look, cover, write and check method. Task 2: Now write each of those five key words in a sentence. Draw an image to represent its meaning.
10B: 30/01/24 10C: 31/01/24	For the Tier 3 words, use read cover, write check and correct to learn the words and their definitions.
10B: 20/02/24 10C: 21/02/24	Use the information in Section 2 to summarise the information in each box.
10B: 05/03/24 10C: 06/03/24	Use the tier 2 vocabulary to explain the information in section 3.
10B:19/03/24 10C: 20/03/24	Link the tier 3 vocabulary to the information in section 2.

Subject: Food Preparation & Nutrition **Protein; Eggs**

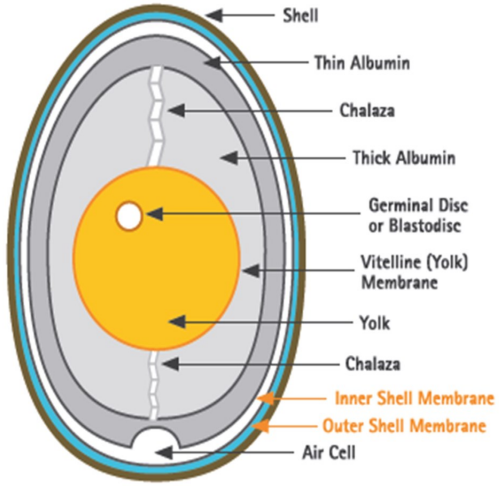
Section 1: Key Vocabulary

Tier 3 vocabulary	Definition
Coagulation	When protein is heated and it becomes firm
Protein denaturation	Irreversible molecular changes to protein. Caused by; pH, mechanical action heat eg when an egg is boiled.
Glazing	Beaten egg brushed over a starchy food to give a golden shine when baked eg pasty, pies
Binding	Holding ingredients together eg; the beef mince in burgers
Enriching	Add addition flavour and colour to dough, pasta custard
Crème patisserie	A rich, sweet custard used in fruit tartlets
Lecithin	A yellow fatty substance (yolk) used as a stabiliser in emulsions
Stabiliser	Added to unstable emulsions to prevent oil and water separating
Setting agent	An ingredients added to make a food set, become firm
Foams	When air is trapped inside eg; chocolate mousse, meringue

Tier 2 vocabulary	Definition
Air cell	an empty space located at the large end of the egg; it is between the inner and outer shell membranes.
Chalaza	a spiral, rope-like strand that anchors the yolk in the thick egg white. There are two chalazae anchoring each yolk, one on the top and one on the bottom. (The plural of chalaza is chalazae.)
Inner shell membrane	the thin membrane located between the outer shell membrane and the albumin.
Outer shell membrane	the thin membrane located just inside the shell.
Shell	the hard, protective coating of the egg. It is semi-permeable; it lets gas exchange occur, but keeps other substances from entering the egg. The shell is made of
Thick albumen	the stringy part of the egg white (albumin) located nearest the yolk.
Thin albumen	the watery part of the egg white (albumin) located farthest from the yolk.
Yolk	the yellow, inner part of the egg where the embryo will form. The yolk contains the food that will nourish the embryo as it grows
Portioning a chicken	Cutting up a chicken into specific parts

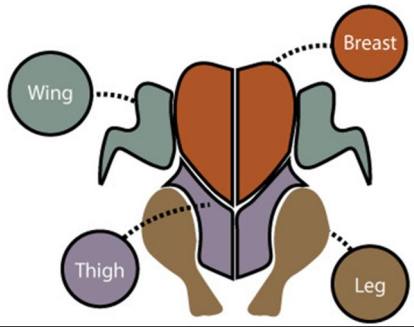
Section 2: Key Content: the egg

The parts of an egg



Quality checks of chicken

- Packaging should be undamaged.
- There should be no freezer burn (white patches on the skin).
- Breasts should be plump and breast bones pliable.
- Flesh should be firm.
- Skin should be unbroken and white (broiler chickens have



Concepts you may have seen before:

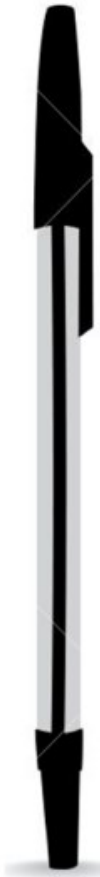
Nutrition; sources and functions of ingredients. How food is reared and caught. Farm assurance schemes eg Red Tractor

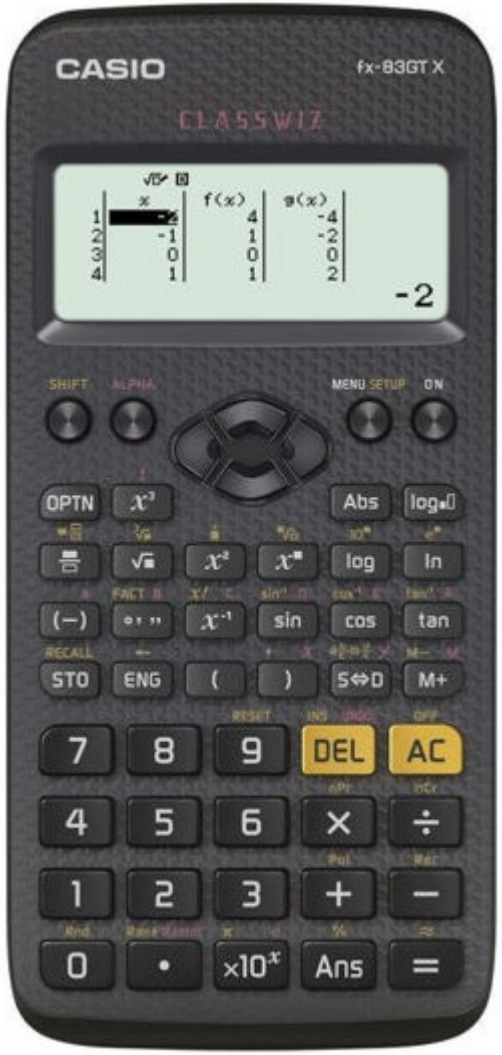
Section 3: Farming and Protein Alternatives

Keyword	Definition
Caged chickens	Poor quality of life Restricted diet Often force fed More likely to contract illness Less expensive
Free range chickens	Better quality of life Wide ranging diet Can roam free, exercise Less likely to pick up illness More expensive
Organic chickens	Bred in conditions with free access to outdoors and fed with food that doesn't contain growth hormones. Most expensive than other farming methods
TVP	Textured vegetable protein Mainly manufactured from soya beans •High protein content. •Used as a meat extender in food manufacturing (or in catering), replacing up to 60% of the meat in a dish. This saves money while providing nutrients and acceptable appearance.
Myco-protein	Produced from a fungus related to the mushroom. •Contains protein and fibre. •Made by fermentation (similar to yoghurt production).
Quorn	A brand and variety of mico-protein. •Low in fat; high in protein. •Does not shrink during preparation and cooking.

Week Beginning	TASKS Year 10 Food Preparation & Nutrition
16/01/2024	Task 1: Learn five Tier 3 vocabulary terms using the look, cover, write and check method. Task 2: Now write each of those five key words in a sentence. Draw an image to represent its meaning.
30/01/2024	For the Tier 3 words, use read cover, write check and correct to learn the words and their definitions.
20/02/2024	Use the information in Section 2 to write a step by step process for the science of breadmaking. Including sketches at each stage to show the action of the raising agent.
05/03/2024	Use the tier 2 vocabulary to explain the information in section 3.
19/03/2024	Link the tier 3 vocabulary to the information in section 2.

Your 5 pieces of equipment you need for learning every day:





Bluecoat Wollaton
believe in yourself, in others, in God