Knowledge Organiser

Core Subjects
Year 9
Term 4
2024/25

The Abbey School

Contents

English Year 9 Term 3
J.B Priestley's *An Inspector Calls*

You will learn how to:

- Identify information and ideas about characters, themes and events in a post-1914 play.
- Explain what you have inferred from the play, supporting your comments with key quotations from the text in an exam-style response.
- Perform close textual analysis of the play, with reference to relevant language, form and structure methods.
- Make links between the play and its social and historical context, considering the reactions of historical and modern audiences, as well as the life and perspective of the playwright, J.B Priestley.

Prior Learning Links:

- In Year 7, students read the novel *Skellig*, focusing on the development of character and the exploration of key themes. These skills will be returned to with further emphasis this term.
- In Year 8, students read a play adaptation of *Frankenstein*, which embeds students' understanding of the form and structure of plays.
- In the first two terms of Year 9, students read *Animal Farm* by George Orwell, which prepared them for their GCSE studies. Students' study of *Animal Farm* also reinforced the importance of social and historical context, while further developing their analysis of language and structure methods.

Future Learning Links:

- *An Inspector Calls* comprises one fifth of the English Literature GCSE texts and is worth approximately the same percentage of the total marks.
- *An Inspector Calls* will continue to be a focus in revision and afterschool tuition sessions throughout the rest of KS4.
- In Year 11, students will study for the English Language GCSE, in which their analytical skills will continue to be a focus.
- Students' understanding of how language and structure methods are used in the Literature texts, such as *An Inspector Calls*, will form the foundation of knowledge necessary for successful analysis in English Language.

KEY VOCABULARY	
KEY WORDS	**KEY SUBJECT TERMINOLOGY**
Context: In English Literature, context refers to anything that might have contributed to the writing of a text, including the lives of the writers and the themes their text explore. For example, the life of J.B Priestley is contextually relevant because his personal experiences informed the ideas he was aiming to communicate. It is also important to know what was happening socially and historically in the time period in which the text was written (1945). Likewise, you need to know what was happening socially and historically in the time period in which the text is *set* (1912).	**Dramatic irony:** Dramatic irony has been used/created whenever the audience has access to knowledge that the **characters** in a text do not. For example, J.B Priestley uses **dramatic irony** when Mr Birling makes a range of predictions about what will happen in the years following 1912. Because the play was written in 1945, the audience knows that Mr Birling's statements are false, highlighting how arrogant and foolish the **character** must be as a result.
Edwardian era: The Edwardian era was a period in the early 20th Century that spanned the reign of King Edward VII. While King Edward VII technically reigned from 1901-1910, it is commonly extended to the start of the First World War, which began in 1914. As such, it is appropriate to refer to the **setting** of the play as the Edwardian era.	**Setting:** The time and place in which the story takes place; provides the backdrop to the story and helps create **mood**. **Foreshadowing**: an advance sign or warning of what is to come.
Class system: The class system refers to the hierarchy of social classes, the most common being the working class, middle class and upper class. In *An Inspector Calls*, the Birling family are an upper-middle class family thanks to Mr Birling's position as a "prosperous manufacturer" and history as "lord mayor"; he is a wealthy factory owner and local politician with a significant amount of social influence in the town of Brumley. Gerald Croft is the son of Sir George and Lady Croft of Crofts Limited; his parents' titles, along with Mr Birling's comments about the Croft company being "both older and bigger than Birling and Company", imply that Gerald is from an even wealthy family than the Birlings.	**Act:** The main division in a play. Some plays are further divided into scenes, but *An Inspector Calls* is not. It is divided into three acts. **Narrative arc:** The structure and shape of a story. Most narrative arcs are comprised of the following: **exposition**; **complicating action**; **climax**; **falling action**; and **resolution**. **Exposition:** The opening of a text, in which the **setting** is established and **characters** are introduced.

On the opposite end of the spectrum, Eva Smith/Daisy Renton represents the working class. Her treatment at the hands of the Birlings and Gerald Croft ultimately led her to commit suicide, emphasising the unfair living and employment conditions of the working class in a capitalist society.	**Complicating action:** The stage in a story in which the lives of the **characters** are complicated in some way.
Social responsibility: Social responsibility refers to the idea that a society's poorer members should be helped by those who have more than them. In other words, everyone in society should be responsible for each other.	**Climax:** When the tension and suspense is at its highest and matters are most threatening.
Socialism: Socialism is a political theory that believes the production, distribution and exchange of goods should be owned or regulated by the community. Put simply, socialists believe all people in society should have equal rights and that equal opportunities should be available to everybody. To achieve this, they believe that resources should be shared out fairly amongst everyone regardless of their class or personal wealth. Socialism stands in opposition to **capitalism**. J.B Priestley was a socialist. His political beliefs are woven throughout his work, and are especially clear in *An Inspector Calls*.	**Falling action:** The stage in a story in which the consequences of the **climax** are described. **Resolution:** A solution for the **complicating action** is described – it may not be a happy one! **Cliffhanger:** When a **narrative**, or part of a **narrative**, is left **unresolved**. A cliffhanger usually results in tension.
Capitalism: Capitalism is an economic system in which the production and distribution of goods is owned privately. Put simply, capitalists believe that individual people and companies should be able to privately own – and make as much profit as possible from – the resources they produce. Capitalists believe that property and resources should be retained by those that own them and their families. Capitalism stands in opposition to **socialism**. J.B Priestley was staunchly anti-capitalist. His negative depictions of capitalism are particularly prevalent in *An Inspector Calls*.	**Stage directions:** An instruction in the text of a play indicating the movement, position, or tone of an actor, or the sound effects and lighting. **Dialogue:** Lines in the text of a play indicating a conversation between two or more **characters**. **Monologue:** Lines in the text of a play indicating that one **character** is speaking alone. Alternatively, a monologue may refer to a long speech.

Language: The **choice of words** used in a poem. Different kinds of language have **different effects**. In English, the **GOMASSIVE/PPS** acronym is a useful way of remembering some of the most common Language Methods that writers use. The methods in the acronym are defined in the generic Literacy Page of your Knowledge Organiser. **Remember:** The **GOMASSIVE/PPS** acronym does not include every language method that you could identify and analyse in a poem.	**Characterisation:** The way in which writers create **characters** and make them believable. Describing the tone of someone's voice and the colour or style of clothing their wearing are both examples of characterisation. **Symbolism:** A literary device in which a writer uses one thing to represent something more abstract. A **symbol** can be a word, object, action, **character** or concept.
Form: The **type** of text, e.g. a play or a poem, and its **features**, like the way in which it is divided into **Acts** instead of chapters. When studying a play, it is important to remember that the text is comprised of **dialogue** and **stage directions**. **Structure:** The **order** and **arrangement** of ideas and events in a text, e.g. how it begins, develops and ends.	**Microcosm:** When a small place, society, situation or **character** has the same characteristics as something much larger. For example, the fictional northern industrial town of Brumley, in which the action of the play takes place, is a microcosm of *all* northern industrial towns in **Edwardian** Britain. Likewise, the **character** of Inspector Goole is a microcosm for the views of **socialism** in **Edwardian** Britain.

1. What social aspects was J.B. Priestley interest in?

Red | Amber | Green

Who was J.B Priestley?

Below are a series of summarised points about the life of J.B Priestley:

- John Boynton Priestley was born in Bradford, Yorkshire on 13 September 1894
- Priestley's mother died the same year that he was born; his father, a politically-minded schoolmaster with group of socialist friends, remarried four years later
- Priestley knew he wanted to be a writer at an early age, leaving school at 16 to gain practical experiences
- Prior to the outbreak of WW1, between the years of 1911-1914, Priestley found himself surrounded by like-minded people who cared about reading, art and politics
- It was during this time that Priestley began to write in earnest; in his autobiography, Priestley wrote, 'I was a writer-poet, story-teller, humourist, commentator, social philosopher, at least in my own estimation.'
- When World War One broke out in 1914, Priestley joined the infantry, aged 20
- By the time he left the army in 1919, he had seen active front-line service in France and had narrowly escaped being killed by shellfire and gas attacks; Priestley said, 'I was lucky in that was and never ceased to be aware of the fact.'

- Following the war, Priestley took a place at Cambridge University to read Modern History and Political Science; he was successful at university but found that academic life did not suit him

- In 1921, Priestley left for London to work as a freelance writer, achieving consistent success as an essayist throughout the 1920s

- When his first novel, *The Good Companions*, was published in 1929, Priestley became a best-selling writer

- Over the next seven years, Priestley established himself as a leading figure in the London theatre, emphasising the importance of responsibility in many of his plays

- When World War Two broke out in 1939, Priestley began writing and broadcasting talks on BBC radio, reflecting upon the conditions of wartime; while they proved popular with is listening audience, the BBC cancelled Priestley's programmes for being too critical of the British Government's actions

- Priestley wrote *An Inspector Calls* at the end of World War Two; it was first performed in the Soviet Union in 1945 and at the New Theatre in London the following year

2. Who are the Birlings?

Red Amber Green

At the beginning of *An Inspector Calls*, J.B Priestley uses the **stage directions** to establish what the main characters are like.

The majority of the main characters are members of the Birling family: Mr Arthur Birling, Mrs Sybil Birling, Miss Sheila Birling and Mr Eric Birling. The fifth main character introduced at the beginning of the play is Gerald Croft, Sheila Birling's fiancé.

How do the stage directions describe the main characters?

Mr Birling: "A heavy-looking, rather portentous man in his middle fifties with fairly easy manners but rather provincial in his speech."

Mrs Birling: "…about fifty, a rather cold woman and her husband's social superior."

Eric: "…in his early twenties, not quite at ease, half shy, half assertive."

Sheila: "…a pretty girl in her early twenties, very pleased with life and rather excited."

Gerald: "An attractive chap about thirty, rather too manly to be a dandy but very much the easy well-bred young man-about-town."

What else can we learn from the stage directions?

The **stage directions** also tell the audience about the **setting**, the **costumes** and the **props** that the actors will make use of:

- "The dining-room of a fairly large suburban house, belonging to a prosperous manufacturer. It has good solid furniture of the period. The general effect is substantial and heavily comfortable, but not cosy and homelike."

- "At rise of curtain, the four Birlings and Gerald are seated at the table, with Arthur Birling at one end, his wife at the other, Eric downstage, and Sheila and Gerald seated upstage."

- “Edna, the parlourmaid, is just clearing the table, which has no cloth, of dessert plates and champagne glasses, etc., and then replacing them with decanter of pot, cigar box and cigarettes. Port glasses are already on the table.”

- “All five are in evening dress of the period, the men in tails and white ties, not dinner-jackets.”

- “At the moment they have all had a good dinner, are celebrating a special occasion, and are pleased with themselves.”

3. How does Priestley use dramatic irony to make Mr Birling unlikeable?	Red	Amber	Green

What does Mr Birling say in his opening speech?

At the beginning of the play, Mr Birling delivers a speech to the rest of the main characters, in which he says the following:

- “I say, you can ignore all this silly pessimistic talk. When you marry, you’ll be marrying at a very good time. Yes, a very good time – and soon it’ll be an even better time.”

- “Last month, just because the miners came out on strike, there’s a lot of wild talk about possible labour trouble in the near future. Don’t worry. We’ve passed the worst of it.”

- “And we’re in for a time of steadily increasing prosperity.”

- “Just because the Kaiser makes a speech or two, or a few German officers have too much to drink and begin talking nonsense, you’ll hear some people say that war’s inevitable. And to that I say – fiddlesticks!”

- “The Germans don’t want war. Nobody wants war, except some half-civilised folks in the Balkans.”

- “And I say there isn’t a chance of war. The world’s developing so fast that it’ll make war impossible.”

- “In a year or two we’ll have aeroplanes that will be able to go anywhere.”

- “Why, a friend of mine went over this new liner last week – the Titanic – she sails next week – forty-six thousand eight hundred tonnes – New York in five days – and every luxury – and unsinkable, absolutely unsinkable!”

- “In twenty or thirty years’ time – let’s say, in 1940 – you may be giving a little party like this – your son or daughter might be getting engaged – and I tell you, by that time you’ll be living in a world that’ll have forgotten all these capital versus labour agitations and all these silly little war scares.”

- “There’ll be peace and prosperity and rapid progress everywhere – except of course in Russia, which will always be behind, naturally.”

What was ironic about Mr Birling’s predictions?

Because **the play was written in 1945**, the writer – and **the audience – have access to knowledge that Mr Birling does not**. For example, the audience would have been aware of the following, all of which proves Mr Birling's predictions to have been wrong:

- World War I began in 1914, just two years after the play is set. This means that Sheila and Gerald cannot possibly be "marrying at a very good time."

- World War II began in 1939 and had only just ended when the play was first performed in 1945 (in Soviet Russia) and 1946 (in Britain). With this in mind, Mr Birling's prediction about that Sheila's and Gerald's "son or daughter might be getting engaged" in "twenty or thirty years' time" seems particularly silly.

- Mr Birling's reference to "steadily increasing prosperity" is also shown to be wrong because of the Great Depression. The Great Depression is the name given to the worst economic downturn in the history of the industrialised world, lasting from 1929 to 1939. It began after the stock market crash of October 1929, and caused millions of people to become bankrupt and/or unemployed.

- Whilst Birling was correct to say that technological advancements were on the horizon in 1912, his predictions fail to address what most new technology was put towards – new weapons of war, such as aeroplanes that could drop bombs and chemical weapons.

- When Mr Birling says "the miners came out on strike" recently, he is talking about the national coal strike of 1912. This was the first national strike by coal miners in the UK. Its main goal was to secure a minimum wage for miners. In contrast to Mr Birling's prediction, the strike was successful after just 37 days, and the governments passed the Coal Mines Act, establishing a minimum wage for the first time.

- The "unsinkable" new "liner" that Mr Birling refers to is probably the most obvious example of his foolishness and arrogance, outside of his repeated predictions about war being unlikely. As most will know, the Titanic was a luxury steamship that sank in the early hours of April 15th 1912, just five days into its maiden voyage from the UK to America. More than any other part of Mr Birling's speech, the sinking of the Titanic stands out because of what it represents; the majority of those who died when the Titanic sank were lower class passengers, symbolises the lack of equality in the Edwardian class system.

4. Who is the Inspector?

Red Amber Green

What is significant about the arrival of the Inspector?

Unlike the other main characters, the Inspector arrives midway through another of Mr Birling's speeches, after the **characterisation** of the main cast has been established.

Below is an excerpt of the moment at which the Inspector arrives. As you might be able to tell, the Inspector rings the doorbell at a very portentous moment, right when Mr Birling is about to make a statement that the Inspector (and J.B Priestley) would not have agreed with:

> **Birling**: (*solemnly*) But this is the point. I don't want to lecture you two young fellows again. But what so many of you don't seem to understand now, when things are so much easier, is that a man has to make his own way – has to look after himself – and his family too, of course, when he has one – and so long as he does that he won't come to much harm. But the way some of these cranks talk and write now, you'd think everybody has to look after everybody else, as if we were all mixed up together like bees in a hive – community and all that nonsense. But take my word for it, you youngsters – and I've

learnt in the good hard school of experience – that a man has to mind his own business and look after himself and his own – and -

We hear the sharp ring of a door bell. Birling stops to listen.

Eric: Somebody at the front door.

Birling: Edna'll answer it. Well, have another glass of port, Gerald – and then we'll join the ladies. That'll stop me giving you good advice.

What political perspective is Mr Birling promoting in his speech here? What kind of political perspective is he criticising?
With answers to the above in mind, why is it significant that Priestley chooses *this* specific moment for the Inspector to arrive? **Which political perspective do you think the Inspector is going to embody?**

How do the stage directions describe the Inspector?

> "The Inspector enters, and Edna goes, closing door after her. The Inspector need not be a big man but he creates at once an impression of massiveness, solidity and purposefulness. He is a man in his fifties, dressed in a plain darkish suit of the period. He speaks carefully, weightily, and has a disconcerting habit of looking hard at the person he addresses before actually speaking."

What do you learn about the Inspector from his clothing (**costume**)? What do you learn about him from the way he speaks and the way he looks at the other characters? Consider the "impression" that he creates on the other characters, despite not being "a big man". Does the Inspector get his power from physical strength – or something else?

What else can we learn from the stage directions?

The opening **stage directions** also reveal a small detail about the **lighting**, which becomes relevant now that the Inspector has entered the story:

> "[At the beginning of the play, the] lighting should be pink and intimate until the Inspector arrives and then it should be brighter and harder."

Why do you think Priestley chose to make the **lighting** become "brighter and harder" once the Inspector arrives? What might this represent?

5. How does Mr Birling react to the Inspector? Red Amber Green

What does dialogue, in response to the Inspector, reveal about his character?

Below are many of Mr Birling's first lines of **dialogue** to the Inspector, prior to him being told about the death of Eva Smith:

- "Sit down, Inspector."
- "Have a glass of port – or a little whiskey?"
- "You're new aren't you?"

- “I thought you must be. I was an alderman for years – and lord mayor two years aho – and I’m still on the bench – so I know the Brumley police officers pretty well – and I thought I’d never seen before.”

- “Well, what can I do for you? Some trouble about a warrant?”

What does Mr Birling begin by doing in the **dialogue** above? What kind of impression is he trying to impress upon the Inspector by talking about his roles of responsibility in the local community? Why might he try to emphasise his personal connections with important members of the local police force?

Now, here are some of Mr Birling’s lines of **dialogue** after finding out about the death of Eva Smith:

- “(*rather impatiently*) Yes, yes. Horrid business. But I don’t understand why you should come here, Inspector –”

- (*slowly*) No – I seem to remember hearing that name – Eva Smith – somewhere. But it doesn’t convey anything to me. And I don’t see where I come into this.”

- “I don’t mind your being here, Gerald. And I’m sure you’ve no objection, have you, Inspector Perhaps I ought to explain first that this is Mr Gerald Croft – the son of Sir George Croft – you know, Crofts Limited.”

- “I can’t accept any responsibility. If we were all responsible for everything that happened to everybody we’d had anything to do with, it would very awkward, wouldn’t it?”

- “What did you say your name was, Inspector?”

- “How do you get on with our chief constable, Colonel Roberts?”

- “Perhaps I ought to warn you that he’s an old friend of mine, and that I see him fairly frequently. We play golf together sometimes up at the West Brumley.”

- “I don’t see we need to tell the Inspector anything more. In fact, there’s nothing I can tell him. I told the girl to clear out, and she went. That’s the last I heard of her.”

Compare these lines of **dialogue** with those that you considered before. How does Mr Birling’s attitude change when he finds out that he is connected to the death of Eva Smith? To what extent does he acknowledge any kind of connection to her?

You should also consider the questions that Mr Birling asks the Inspector. Why does he ask him to repeat his name and question his relationship with the chief constable? What is Mr Birling trying to do?

6. Who is Eva Smith?

Red Amber Green

How does the Inspector introduce the character of Eva Smith and what happened to her?

The Inspector first describes Eva Smith – and her death – with the following lines of **dialogue**:

- “Two hours ago a young woman died in the infirmary. She’d been taken there this afternoon because she’d swallowed a lot of strong disinfectant. Burnt her inside out, of course.”

- “Yes, she was in great agony. They did everything they could for her at the infirmary, but she died. Suicide, of course.”

- “I’ve been round to the room she had, and she’d left a letter there and a sort of diary. Like a lot of these young women who get into various kinds of trouble, she’d used more than one name. But her original name – her real name – was Eva Smith.”

The Inspector’s **dialogue** is mostly simple and straightforward, but harsh and powerful in contrast to the casual conversation that the Birling’s have mostly been having so far. What does this signify?

Consider Eva Smith’s name, which the Inspector establishes early on was only one of her names. What kind of person might Eva Smith represent, and how does her name help to show this?

Why does the Inspector only show the photograph of Eva Smith to one person at a time?

When the Inspector shows the photograph of Eva Smith to Mr Birling, he goes to great lengths to ensure that neither Gerald nor Eric see the photograph.

Here are the **stage directions** that first demonstrate this:

> *“Inspector takes a photograph, about postcard size, out of his pocket and goes to Birling. Both Gerald and Eric rise to have a look at the photograph, but the Inspector interposes himself between them and the photograph They are surprised and rather annoyed.”*

When questioned about this, the Inspector says the following:

> “It’s the way I like to go to work. One person and one line of inquiry at a time. Otherwise, there’s a muddle.”

Later on in the play, the Inspector will do the same thing with Sheila and Mrs Birling, and none of the main characters will ever be able to confirm if they’ve seen the same photograph of Eva Smith as another main character. Why do you think this might be? What might it imply about the identity of Eva Smith?

7. How are Mr Birling’s attitudes shown in his treatment of Eva Smith?

Red | Amber | Green

What connection did Eva Smith have to Mr Birling?

Below are the lines of **dialogue** that establish how Eva Smith knew Mr Birling:

> **Inspector**: She was employed in your works at one time.
>
> Birling: Oh – that’s it, is it? Well, we’ve several hundred young women there, y’know, and they keep changing.
>
> **Inspector**: This young woman, Eva Smith, was out of the ordinary.
>
> …
>
> **Inspector**: I think you remember Eva Smith now, don’t you, Mr Birling?

Birling: Yes, I do. She was one of my employees and then I discharged her.

…

Birling: This girl left us nearly two years ago. Let me see – it must have been in the early autumn of nineteen-ten.

…

Birling: Now – about this girl, Eva Smith. I remember her quite well now. She was a lively good-looking girl – country-bred, I fancy – and she'd been working in one of our machine shops for over a year. A good worker too. In fact, the foreman there told me he was ready to promote her into what we call a leading operator – head of a small group of girls. But after they came back from their holidays that August, they were all rather restless, and they suddenly decided to ask for more money. They were averaging about twenty-two and six, which was neither more nor less than is paid generally in our industry. They wanted the rates raised so that they could average about twenty-five shillings a week. I refused, of course.

Inspector: Why?

Birling: (*surprised*) Did you say 'Why?'?

…

Birling: Well, it's my duty to keep labour costs down. And if I'd agreed to this demand for a new rate we'd have added about twelve per cet to our labour costs. Does that satisfy you? So I refused. Said I couldn't consider it. We were paying the usual rates and if they didn't like those rates, they could go and work somewhere else. It's a free country, I told them.

…

Birling: [The strike was broke], after a week or two. Pitiful affair. Well, we let them all come back – at the old rates – except the four or five ring-leaders, who'd started the trouble. I went down myself and told them to clear out. And this girl, Eva Smith, was one of them. She'd had a lot to say – far too much – so she had to go.

8. How does Sheila respond to her involvement in Eva Smith's life?	**Red**	**Amber**	**Green**

What is Sheila's initial reaction to finding out about Eva Smith's death?

Below are the lines of **dialogue** shared by Sheila and the Inspector, in which she first hears about the death of Eva Smith:

Inspector: (*impressively*) I'm a police inspector, Miss Birling. This afternoon a young woman drank some disinfectant, and died, after several hours of agony, tonight in the infirmary.

Sheila: Oh – how horrible! Was it an accident?

Inspector: No. She wanted to end her life. She felt she couldn't go on any longer.

…

Sheila: (*rather distressed*) Sorry! It's just that I can't help thinking about this girl – destroying herself so horribly – and I've been so happy tonight. Oh I wish you hadn't told me. What was she like? Quite young?

Inspector: Yes. Twenty-four.

Sheila: Pretty?

Inspector: She wasn't pretty when I saw her today, but she had been pretty – very pretty.

How does Sheila react when she realises she was responsible for the firing of Eva Smith?

Below are the **stage directions** which describe Sheila's reaction when she realises she got Eva Smith fired from Milwards:

- *"He moves nearer a light – perhaps a standard lamp – and she crosses to him. He produces the photograph. She looks at it closely, recognizes it with a little cry, gives a half-stifled sob, and then runs out. The inspector puts the photograph back in his pocket and stares speculatively after her. The other three stare in amazement for a moment."*

How does Sheila behave when she returns to the room, explaining her interaction with Eva Smith?

Below are the lines of **dialogue** shared by Sheila and the Inspector after she returns to the room and regains her composure:

Enter Sheila, who looks as if she's been crying.

Inspector: Well, Miss Birling?

Sheila: (*coming in, closing the door*) You knew it was me all the time, didn't you?

Inspector: I had an idea it might be – from something the girl herself wrote.

Sheila: I've told my father – he didn't seem to think it amounted to much – but I felt rotten about it at the time and now I feel a lot worse. Did it make much difference to her?

Inspector: Yes, I'm afraid it did. It was the last real steady job she had. When she lost it – for no reason that she could discover – she decided she might as well try another kind of life.

…

Sheila: (*distressed)* I went to the manager at Milwards and I told him that if they didn't get rid of that girl, I'd never go near the place again and I'd persuade mother to close our account with them.

Inspector: And why did you do that?

Sheila: Because I was in a furious temper.

Inspector: And what had this girl done to make you lose your temper.

Sheila: When I was looking at myself in the mirror I caught sight of her smiling at the assistant, and I was furious with her. I'd been in a bad temper anyhow.

…

Sheila: I'd gone in to try something on. It was an idea of my own – mother had been against it, and so had the assistant – but I insisted. As soon as I tried it on, I knew they'd been right. It just didn't suit me at all. I looked silly in the thing. Well, this girl had brought the dress up from the workroom, and when the assistant – miss Francis – had asked her something about it, this girl, to show us what she meant, had held the dress up, as if she was wearing it. And it just suited her. She was the right type for it, just as I was the wrong type. She was very pretty too – with big dark eyes – and that didn't make it any better. Well, when I tried the thing on and looked at myself and knew that it was all wrong, I caught sight of this girl smiling at miss Francis – as if to say: 'doesn't she look awful' – and I was absolutely furious. I was very rude to both of them, and then I went to the manager and told him that this girl had been very impertinent – and – and – [*She almost breaks down, but just controls herself.*] How could I know what would happen afterwards? If she'd been some miserable plain little creature, I don't suppose I'd have done it. But she was very pretty and looked as if she could take care of herself. I couldn't be sorry for her.

Inspector: In fact, in a kind of way, you might be said to have been jealous of her.

Sheila: Yes, I suppose so.

Inspector: And so you used the power you had, as a daughter of a good customer and also of a man well known in the town, to punish the girl just because she made you feel like that?

Sheila: Yes, but it didn't seem to be anything very terrible at the time. Don't you understand? And if I could help her now, I would –

Inspector: (*harshly*) Yes, but you can't. It's too late. She's dead.

…

Sheila: It's the only time I've ever done anything like that, and I'll never, never do it again to anybody. I've noticed them giving me a sort of look sometimes at Milwards – I noticed it even this afternoon – and I suppose some of them remember. I feel now I can never go there again. Oh – why had this to happen?

9. How is responsibility shown in Act One? Red Amber Green

Which quotations demonstrate the theme of social responsibility in Act One?

Consider the following quotations carefully. Each of them appears in Act One and links to the theme of **social responsibility** – but what are audiences supposed to think in response to each quotation?

Mr Birling:

- "...and as it happened more than 18 months ago – nearly two years ago – obviously it has nothing whatever to do with the wretched girl's suicide."

- "Still I can't accept any responsibility."

- “If we were all responsible for everything that happened to everybody we’d had anything to do with, it would be very awkward, wouldn’t it?”

- “If you don’t come down sharply on some of these people, they’d soon be asking for the earth.”

Sheila Birling:

- “You talk as if we were responsible –”

- “But these girls aren’t cheap labour – they’re people.”

- “It was my own fault. (s*uddenly, to Gerald*])All right, Gerald, you needn’t look at me like that. At least, I’m trying to tell the truth. I expect you’ve done things you’re ashamed of too.”

- “How could I know what would happen afterwards?”

- “If she’d been some miserable plain little creature, I don’t suppose I’d have done it. But she was very pretty and looked as if she could take care of herself. I couldn’t be sorry for her.”

- “And if I could help her now, I would –”

Based on the above, consider **which characters have accepted responsibility**, and **which have chosen to reject responsibility.** What is it that separates these two characters, and how might their differences impact their decisions to accept/reject responsibility for their part in Eva Smith’s death?

Lastly, consider this exchange between Sheila and the Inspector:

> **Sheila Birling:** So I’m really responsible?
>
> **Inspector:** No, not entirely. A good deal happened to her after that. But you’re partly to blame. Just as your father is.

What is the **message** is Priestley trying to communicate with the Inspector’s **dialogue** here?

10. How does Gerald reveal that he knew Eva Smith/Daisy Renton? Red Amber Green

What connection did Eva Smith have to Gerald?

Below are the lines of **dialogue** that establish Gerald knew Eva Smith when she was using a different name (Daisy Renton):

> **Inspector**: Now [Eva Smith] had to try something else. So first she changed her name to Daisy Renton
>
> **Gerald:** (*startled*) What?
>
> **Inspector:** (*steadily*) I said she changed her name to Daisy Renton.
>
> **Gerald:** (*pulling himself together*) D'you mind if I give myself a drink, Sheila?
>
> …

Sheila: You not only knew her but you knew her very well. Otherwise, you wouldn't look so guilty about it. When did you first get to know her?

He does not reply.

Was it after she left Milwards? When she changed her name, as [the Inspector] said, and began to lead a different sort of life? Were you seeing her last spring and summer, during that time you hardly came near me and said you were so busy? Were you?

He does not reply but looks at her.

Yes, of course you were.

Gerald: I'm sorry, Sheila. But it was all over and done with, last summer. I hadn't set eyes on the girl for at least six months. I don't come into this suicide business.

11. How is Gerald's relationship with Eva Smith/Daisy Renton presented?	**Red**	**Amber**	**Green**

Below are the lines of **dialogue** that in which Gerald confesses to having had a relationship with Eva Smith/Daisy Renton:

Gerald: I met her first, sometime in march last year, in the stalls bar at the palace. I mean the palace music hall here in Brumley–

…

Gerald: I happened to look in, one night, after a long dull day, and as the show wasn't very bright, I went down into the bar for a drink. It's a favourite haunt of women of the town–

…

Gerald: I didn't propose to stay long down there. I hate those hard-eyed dough-faced women. But then I noticed a girl who looked quite different. She was very pretty – soft brown hair and big dark eyes- (*breaks off.)* My god! […] Sorry – I – well, I've suddenly realized – taken it in properly – that's she's dead–

…

Gerald: She looked young and fresh and charming and altogether out of place down here. And obviously she wasn't enjoying herself. Old Joe Meggarty, half-drunk and goggle-eyed, had wedged her into a corner with that obscene fat carcass of his– […] The girl saw me looking at her and then gave me a glance that was nothing less than a cry for help. So I went across and told Joe Meggarty some nonsense – that the manager had a message for him or something like that – got him out of the way – and then told the girl that if she didn't want any more of that sort of thing, she'd better let me take her out of there. She agreed at once.

Inspector: Where did you go?

Gerald: We went along to the county hotel, which I knew would be quiet at that time of night, and we had a drink or two and talked.

…

Gerald: I discovered, not that night but two nights later, when we met again – not accidentally this time of course - that in fact she hadn't a penny and was going to be turned out of the miserable back room she had. It happened that a friend of mine, Charlie Brunswick, had gone off to Canada for six months and had let me have the key of a nice little set of rooms he had – in Morgan Terrace – and had asked me to keep an eye on them for him and use them if I wanted to. So I insisted on Daisy moving into those rooms and I made her take some money to keep her going there. (*carefully, to the inspector.)* I want you to understand that I didn't install her there so that I could make love to her. I made her go to Morgan Terrace because I was sorry for her, and didn't like the idea of her going back to the palace bar. I didn't ask for anything in return.

…

Inspector: She became your mistress?

Gerald: Yes. I suppose it was inevitable. She was young and pretty and warm-hearted – and intensely grateful. I became at once the most important person in her life – you understand?

…

Gerald: In the first week of September. I had to go away for several weeks then – on business – and by that time daisy knew it was coming to an end. So I broke it off definitely before I went. […] She told me she'd been happier than she'd ever been before – but that she knew it couldn't last – hadn't expected it to last. She didn't blame me at all. I wish to God she had now. Perhaps I'd feel better about it.

Inspector: She had to move out of those rooms?

Gerald: Yes, we'd agreed about that. She'd saved a little money during the summer – she'd lived very economically on what I'd allowed her – and didn't want to take more from me, but I insisted on a parting gift of enough money – though it wasn't so very much – to see her through to the end of the year.

12. What is Mrs Birling's relationship with Sheila like?

Red Amber Green

How do Sheila and Mrs Birling talk to each other at the beginning of the play, prior to the arrival of the Inspector?

Below are lines of dialogue shared by Sheila and Mrs Birling, taken from the beginning of Act One. Consider what each exchange reveals about their relationship and how they treat one another.

Sheila: Yes, go on, mummy. You must drink to our health.

Mrs Birling: (*smiling*) Very well, then. Just a little, thank you.

…

Mrs Birling: Now, Shelia, don't tease [Gerald]. When you're married you'll realise that men with important work to do sometimes have to spend nearly all their time and energy on their business. You'll have to get used to that, just as I had.

Sheila: I don't believe I will.

…

Sheila: (*to Eric*) You're squiffy.

Eric: I'm not!

Mrs Birling: What an expression, Sheila! Really, the things you girls pick up these days!

Eric: If you think that's the best she can do –"

Sheila: Don't be an ass, Eric.

Mrs Birling: Now stop it, you two.

…

Sheila: (*who has put the ring on, admiringly*) I think it's perfect. Now I really feel engaged.

Mrs Birling: So you ought, darling. It's a lovely ring. Be careful with it.

Sheila: Careful! I'll never let it go out of my sight for an instant.

Mrs Birling: (*smiling*) Well, it came just at the right moment. That was clever of you, Gerald. Now, Arthur, if you've no more to say, I think Sheila and I had better go into the drawing room and leave you men –"

How do Sheila and Mrs Birling talk to each other at the beginning of the play, prior to the arrival of the Inspector?

Below are lines of dialogue shared by Sheila and Mrs Birling, taken from the middle of Act Two. Consider what each exchange reveals about their relationship and how they treat one another now that Sheila has begun to adopt some of the socialist ideals shared by the Inspector:

Mrs Birling: I think you ought to go to bed – and forget about this absurd business.

Sheila: Mother, I couldn't possibly go. Nothing could be worse for me.

…

Mrs Birling: Please don't contradict me… I don't suppose for a moment that we can understand why the girl committed suicide. Girls of that class –'

Sheila: (*urgently, cutting in)* Mother, don't – please don't. For your own sake, as well as ours, you mustn't –

Mrs Birling: (*annoyed*) Mustn't – what? Really, Sheila!

Sheila: (*slowly, carefully now*) You mustn't try to build up a kind of wall between us and that girl. If you do, then the inspector will just break it down. And it'll be all the worse when he does.

…

Mrs Birling: That – I consider – is a trifle impertinent, inspector.

Sheila gives short hysterical laugh

Mrs Birling: Now, what is it, Sheila?

Sheila: I don't know. Perhaps it's because impertinent is such a silly word.

Mrs Birling: In any case…

Sheila: But, mother, do stop before it's too late.

HOME LEARNING TASKS

Task Description	Done?
Watch videos about the play on GCSE Pod. Your teacher will direct you to suitable videos.	
Revise key details about the play, including characters, themes and context.	
Revise key quotations from the play. You could begin by annotating your quotations with notes about language and/or structure methods. Consider linking each quotation to a key theme, as well as any relevant social or historical context.	
Answer exam-style questions. Your teacher will direct you to suitable questions.	
Revise the content and context of the play using your Knowledge Organiser. Your teacher will direct you to suitable sections of the Knowledge Organiser in preparation for recall quizzes in class.	

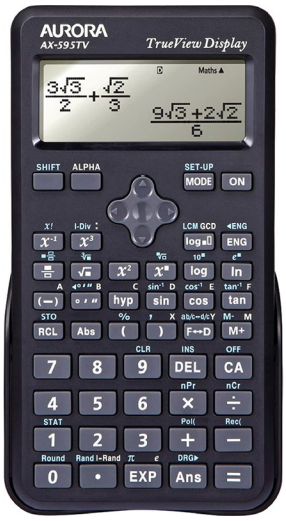
Maths Year 9 Term 4

Fractions and percentages (Foundation)

Fractions, ratio and percentages (Higher)

Term Focus

F - How do we perform the 4 operations with fractions?
F - How can you use and apply your knowledge of percentages to the real world?
H - How do we perform the 4 operations with fractions?
H - How can you use and apply your knowledge of percentages to the real world?



Prior Learning Links

Foundation:

Year 7 and Year 8 number skills required.
Simple addition, subtraction, multiplication and division skills.
Students need to know what factors and multiples are and be comfortable in working with primes, squares, cubes and roots within calculations.
Students should also have a solid understanding of what negative numbers are and what rules of addition, subtraction, multiplication and division there are.

Higher:

Students should be familiar with calculations, divisibility and division, calculating with negative integers, powers and roots, and multiples and factors.

Future Learning Links

Foundation

Links to harder topics in later years.
Students need to be able to work in standard form (Year 11) and carry out calculations with larger numbers.
Index notation links to laws of indices and solving harder linear equations.
Powers of two and three link to quadratic and cubic graphs.

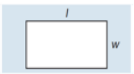
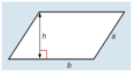
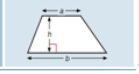
Higher

This unit relates to many other units and is a fundamental base for all of mathematics.
Year 11, Term 3, Chapter 17H – Further Algebra
Students need strong number skills and an understanding of indices for surds, functions and proof.

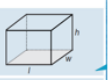
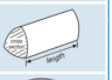
Subject: Mathematics
Topic: Recall Knowledge

Year / Group: GCSE F/H
Term: 1-6

Areas

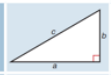
Rectangle = $l \times w$	
Parallelogram = $b \times h$	
Triangle = $\frac{1}{2} b \times h$	
Trapezium = $\frac{1}{2}(a + b)h$	

Volumes

Cuboid = $l \times w \times h$	
Prism = area of cross section × length	
Cylinder = $\pi r^2 h$	
Volume of pyramid = $\frac{1}{3}$ × area of base × h	

Pythagoras

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



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

Compound measures

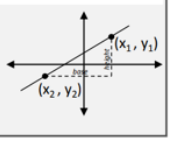
Speed	$\text{speed} = \frac{\text{distance}}{\text{time}}$
Density	$\text{density} = \frac{\text{mass}}{\text{volume}}$
Pressure	$\text{pressure} = \frac{\text{force}}{\text{area}}$

Gradient of a Line

$m = \frac{y_2 - y_1}{x_2 - x_1}$

or

$m = \frac{\text{height}}{\text{base}}$



Midpoint of two points

between (x_1, y_1) and (x_2, y_2)

$\left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2}\right)$

Compound Growth & Decay

The amount after n years (or days, etc.) is:

$\text{starting amount} \times \left(1 \pm \frac{r}{100}\right)^n$

where r is the rate of change.
The $\pm$ means + for growth and – for decay

Literacy In Maths	Command Words
Evaluate ...	Work out and write your answer
Work out ...	Working out is required
Calculate ...	Working out is required. A calculator may be needed.
Solve ...	Work out the values
Prove ...	All working must be shown in steps to link reasons and values.
Expand...	Multiply out of the brackets
Draw...	Draw accurately with a pencil and equipment.
Explain ...	Use words to give reasons
Factorise	The reverse process of expanding brackets. Remove the HCF.
Estimate	Work out an approximate answer using rounded values.

Circles

Circumference = $\pi \times$ diameter, $C = \pi d$	
Circumference = $2 \times \pi \times$ radius, $C = 2\pi r$	
Area of a circle = $\pi \times$ radius squared, $A = \pi r^2$	

Area of a Sector

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

Length of an Arc

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

Set Notation

$A \cup B$
Union: in A or B (or both)
$A \cap B$
Intersection: in both A and B

$P(A \text{ or } B) = P(A) + P(B)$
$P(A \text{ and } B) = P(A) \times P(B)$

Literacy In Maths	Command Words
Evaluate ...	Work out and write your answer
Work out ...	Working out is required
Calculate ...	Working out is required. A calculator may be needed.
Solve ...	Work out the values
Prove ...	All working must be shown in steps to link reasons and values.
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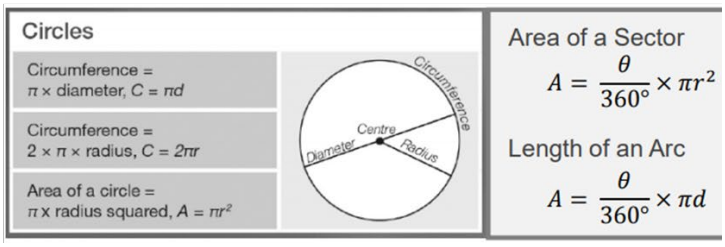
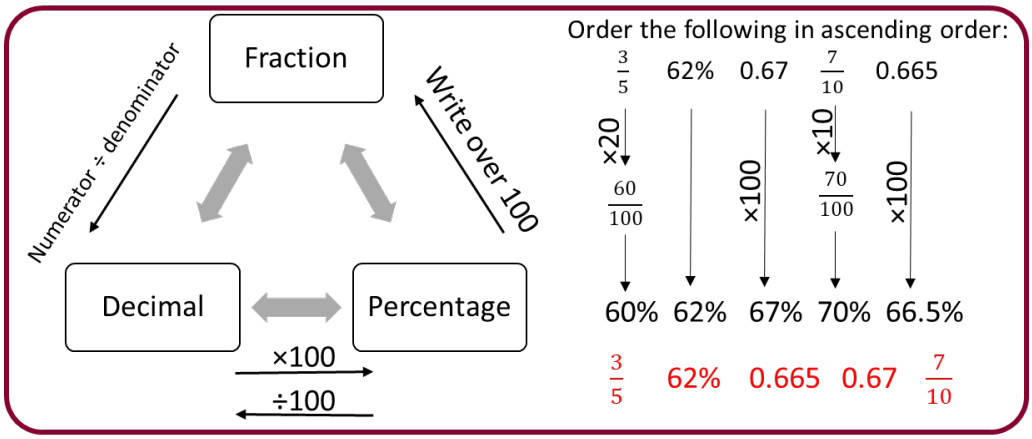


1. How do we convert between a fraction, decimal and percentage?

Red Amber Green



2. Which conversions do I need to know by heart?

Red Amber Green

These are some of the conversions that you need to learn.

Top tips - To convert:

- Percentages to decimals divide by 100.
- Decimals to percentages multiply by 100.
- Percentages to fractions, put over 100.
- Fractions make sure the denominator is 100.

F	D	P
$\frac{1}{100}$	0.01	1%
$\frac{1}{10}$	0.1	10%
$\frac{1}{5}$	0.2	20%
$\frac{1}{4}$	0.25	25%
$\frac{1}{2}$	0.5	50%
$\frac{3}{4}$	0.75	75%

3. How do I find a fraction of an amount?

Red Amber Green

Calculate $\frac{4}{5}$ of 65:

$65 \div 5 = 13$ ← Divide by the denominator

$13 \times 4 = 52$ ← Multiply this by the numerator

$\frac{4}{5}$ of a number is 52, what is the original number?

$52 \div 4 = 13$ ← Divide by the numerator

$13 \times 5 = 65$ ← Multiply this by the denominator

4. How do I order fractions?

Red Amber Green

Order these fractions in ascending order:

$\frac{2}{5}$ $\frac{1}{2}$ $\frac{5}{6}$ $\frac{7}{15}$

×6 ×15 ×5 ×2

$\frac{12}{30}$ $\frac{15}{30}$ $\frac{25}{30}$ $\frac{14}{30}$

(1) (3) (4) (2)

To be able to compare fractions we must have a **common denominator**

5. How do I add and subtract mixed numbers?

Red Amber Green

$1\frac{2}{3} + 2\frac{1}{4}$ $\qquad$ $2\frac{2}{3} - 1\frac{1}{4}$

$= \frac{5}{3} + \frac{9}{4}$ $\qquad$ Convert into an improper fraction $\qquad$ $= \frac{8}{3} - \frac{5}{4}$

$= \frac{20}{12} + \frac{27}{12}$ $\qquad$ Find a common denominator $\qquad$ $= \frac{32}{12} - \frac{15}{12}$

$= \frac{47}{12}$ $\qquad$ $= \frac{17}{12}$

$= 3\frac{11}{12}$ $\qquad$ Convert back into a mixed number $\qquad$ $= 1\frac{5}{12}$

Key Concepts 2

An **improper fraction** is when the numerator is larger than the denominator e.g. $\frac{20}{12}$

Converting from a mixed number into an improper fraction:

$$2\frac{3}{5} = \frac{(2 \times 5) + 3}{5} = \frac{13}{5}$$

A **reciprocal** is the value that when multiplied by another gives the answer of 1.

Eg. $\frac{1}{8}$ is the reciprocal of 8.

$\frac{2}{5}$ is the reciprocal of $\frac{5}{2}$

6. How do we multiply and divide with mixed numbers?

Red Amber Green

$$1\frac{1}{3} \times 2\frac{3}{4}$$

$$= \frac{4}{3} \times \frac{11}{4}$$

$$= \frac{44}{12}$$

$$= 3\frac{8}{12}$$

$$2\frac{1}{3} \div 1\frac{3}{5}$$

$$= \frac{7}{3} \div \frac{8}{5}$$

Find the reciprocal of the second fraction....

$$= \frac{7}{3} \times \frac{5}{8}$$

...and multiply

$$= \frac{35}{24}$$

$$= 1\frac{11}{24}$$

7. How do we calculate a percentage (calculator and non-calculator)?

Red Amber Green

Calculating a percentage – non calculator:

Calculate 32% of 500g:

10% → 500 ÷ 10 = 50
30% → 50 × 3 = 150
1% → 500 ÷ 100 = 5
2% → 5 × 2 = 10

32% = 150 + 10
= 160g

Calculating a percentage – calculator:

Calculate 32% of 500g:

$Value \times (percentage \div 100)$
$= 500 \times 0.32$
= 160g

8. How do we find simple and compound interest?

Red Amber Green

Simple interest:

Joe invest £400 into a bank account that pays 3% **simple interest** per annum.
Calculate how much money will be in the bank account after 4 years.

3% = £4 × 3
= £12
4 years = £12 × 4
Interest = £48
Total in bank account = £400 + £48
= £448

Compound interest: H - Only

Joe invest £400 into a bank account that pays 3% **compound interest** per annum.
Calculate how much money will be in the bank account after 4 years.

$Value \times (1 \pm percentage\ as\ a\ decimal)^{years}$
$= 400 \times (1 + 0.03)^4$
$= 400 \times (1.03)^4$
= £450.20

9. How do I increase/decrease an amount by a percentage?

Red Amber Green

Percentage increase / decrease:

A dress is reduced in price by 35% from £80. What is it's **new price**?

$Value \times (1 - percentage\ as\ a\ decimal)$
$= 80 \times (1 - 0.35)$ = £52

A house price appreciates by 8% in a year. It originally costs £120,000, what is the **new value** of the house?

$Value \times (1 + percentage\ as\ a\ decimal)$
$= 120{,}000 \times (1 + 0.08)$ = £129,600

10. How do we calculate reverse percentages and percentage change?

Red Amber Green

Reverse percentages: This is when we are trying to find out the original amount. **H - Only**

*A pair of trainers cost £35 in a sale. If there was 20% off, what was the **original price** of the trainers?*

$Value \div (1 - 0.20)$
$= 35 \div 0.8$ = £43.75

*A vintage car has increased in value by 5%, it is now worth £55,000. What was it worth **originally**?*

$Value \div (1 + 0.05)$
$= 55{,}000 \div 1.05$ = £52,380.95

Percentage change **H - Only**

Joe spend £400 on items to sell in his shop. He makes a total of £500 in sales. What is his percentage profit?

Percentage profit = (change / original) x100

$= \frac{500 - 400}{400}$ x 100

$= \frac{100}{400}$ x 100

= 25%

11. How do I share into a ratio? (Higher only)

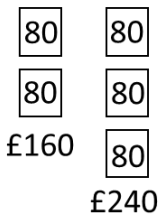
Red Amber Green

A woman has £400. She is going to split it between her two children in the ratio 2:3. How much does each child receive?

2 : 3

No. of boxes (2+3)

400 ÷ 5
= 80



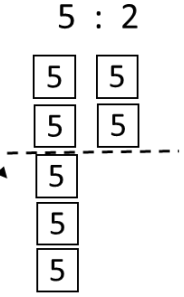
Child 1 receives £160 and Child 2 receives £240.

There are boys and girls at a party in the ratio 5:2. There are 15 more boys than girls. Calculate the number of people at the party.

5 : 2

No. of extra Boxes (5-2)

15 ÷ 3
= 5



7 × 5
= 35 people

12. How do I solve direct proportion problems? (Higher only)	Red	Amber	Green

Box A has 8 fish fingers costing £1.40.
Box B has 20 fish fingers costing £ 3.40.
Which box is the better value?

$$A = \frac{£1.40}{8} = £0.175$$

$$B = \frac{£3.40}{20} = £0.17$$

Therefore Box B is better value as each fish finger costs less.

If 20 apples weigh 600g. How much would 28 apples weigh?

600 ÷ 5 = 120g = weight of 4

7 × 4 = 28 apples
7 × 120 = **840g**

HOME LEARNING TASKS	
Task Description	**Done?**
U646	
U692	
U736	
U475	
U544	
U538	
U888	
U689	
U550	
U176	
U332	
U533	

Subject Year 9 Block 3 –

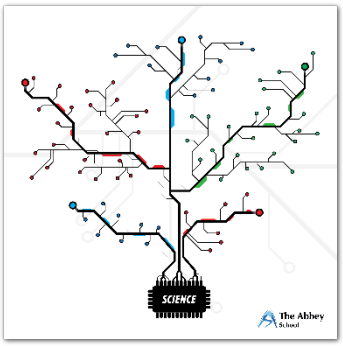
TERM FOCUS – How are different substances transported around cells
Big Ideas

Prior Learning Links

1. The structure and functions of the gas exchange system in humans, including adaptations to function
2. The mechanism of breathing to move air in and out of the lungs, using a pressure model
3. To explain the movement of gases, including simple measurements of lung volume
4. The impact of exercise, asthma and smoking on the human gas exchange system
5. The role of leaf stomata in gas exchange in plants

Future Learning Links

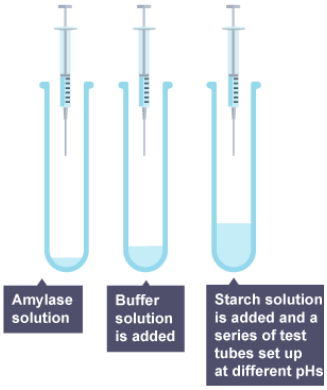
1. The relationship between the structure and functions of the human circulatory system.
2. non-communicable diseases

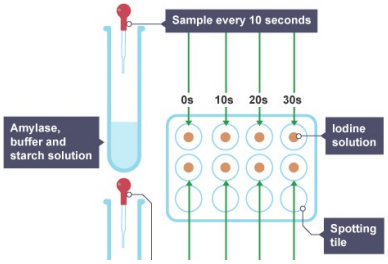


1. Enzyme required practical

Red | Amber | Green

1. Add 1ml of amylase solution to a test tube
2. Add 5mls of buffer solution to the test tube
3. Add 5mls of starch solution to the test tube and start the stop clock. Give the test tube a swirl to mix the contents
4. After 20 seconds take three drops of the liquid out of the test tube and place into a spotting tile
5. Add a drop of iodine solution to the liquid





2. The lungs

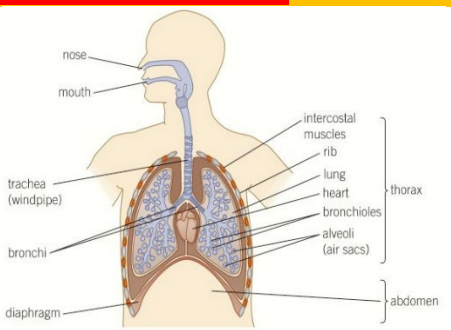
Red | Amber | Green

Ventilation is the process of movement of air into and out of your lungs. It occurs by contraction and relaxation of the intercostal muscles between the ribs and the diaphragm. The movement of the ribcage changes the pressure inside the chest cavity, the air gets forced in or out of the lungs as a result in pressure changes.

Adaptions of the alveoli

- Very thin walls only once cell thick
- Covered in a network of fine capillaries, enabling the gasses to pass almost directly between the lungs and blood stream.
- They are moist, encouraging gas molecules to easily dissolve
- They have a large combined surface area, allowing large amounts of gases to be exchanged with each breath

Diffusion – see knowledge organiser term 2



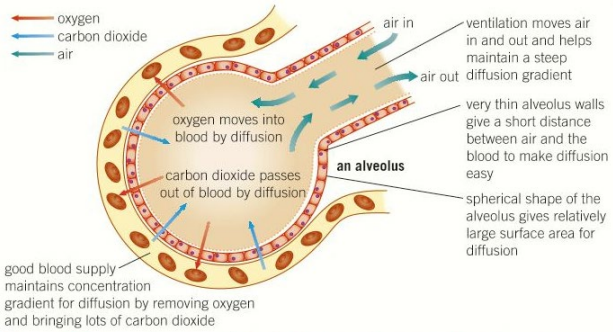


Figure 3 *The alveoli are adapted so that gas exchange can take place as efficiently as possible in the lungs*

3. The blood

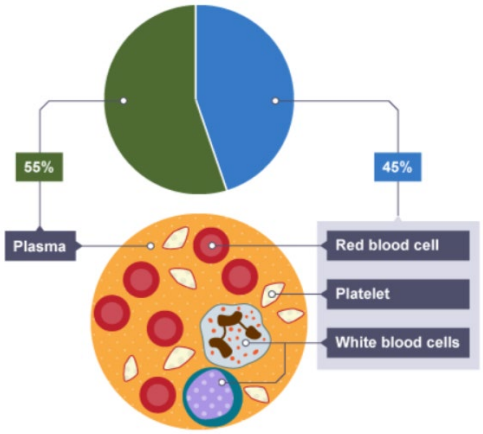
Red | Amber | Green

Blood is a tissue, this means that it is made of different cells that work together.its function is to transport

substances around the body. It is made from red blood cells, white blood cells, platelets and plasma
Red blood cells have the important job of transporting oxygen around the body. They have a concave shape and do not contain a nucelus. They have haemoglobin that carries the oxygen.
White blood cells there are different types of white blood cells but their main function is to defend the body against microorganisms that cause disease

- They engulf unwelcome microorganisms and digest them
- They can produce antibodies to fight microorgansims
- They can prodcue antitoxins to neutralise any toxins produced by mircoorganisms

Platelets are small fragmented parts of cells, they have no nucleus and they help the blood to clot at a wound.
Plasma is a pale straw coloured liquid that carries everything in the blood.

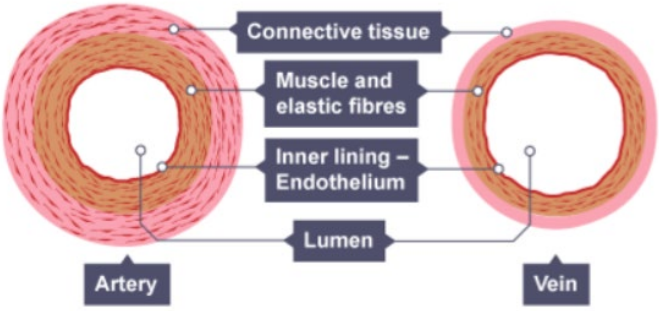


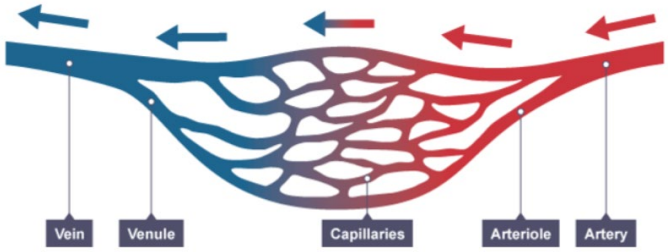
Component	Function(s)
Plasma	Transporting carbon dioxide, digested food molecules, urea and hormones; distributing heat
Red blood cells	Transporting oxygen
White blood cells	Ingesting pathogens and producing antibodies
Platelets	Involved in blood clotting

4. Blood vessels

Red | Amber | Green

Arteries
Carry blood away from the heart towards the organs (Arteries AWAY). This is at high pressure so the artery walls are thick, strong and elastic. They have thick layers of muscle to make them strong and elastic fibres help them stretch and spring back. The walls are thick in comparison to the lumen in the middle.
Capillaries
Arteries branch into capillaries that are needed for the exchange of substances to tissues, for example oxygen and food. They take away carbon dioxide. They are really tiny and are hard to see, they have a permeable wall this is to make diffusion across the cell walls easier and quicker. The walls are only one cell thick to help with quick diffusion of substances. They are narrow giving them large surface area compared to their volume.
Veins
Capillaries eventually will join up to make veins. They carry blood to the heart (Veins IN heart) they have a lower pressure so the walls do not need to be as thick, they have bigger lumens to help with the flow of blood. They also have valves to help keep the blood flowing in the right direction.





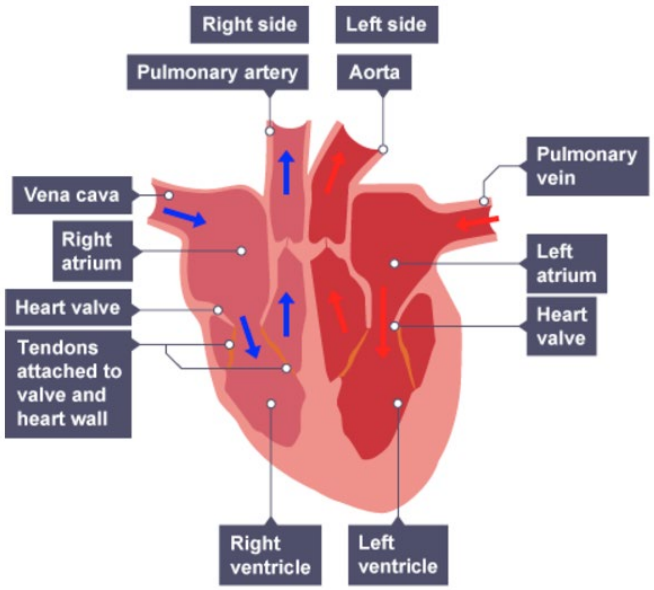
5. The heart

Red | Amber | Green

Humans have a double circulatory system this is to get food and oxygen to every cell in the body. It is not just a delivery service it also takes away any waste produced in the cells.
The walls of the heart are mainly made of cardiac muscle tissue, this is what contracts to cause the heart to beat. The heart has four chambers right atrium, right ventricle, left atrium left ventricle. This is what is used to pump the blood around. There is also the vena cava, pulmonary artery, aorta and pulmonary vein.
The valves in the heart prevent the blood from being pumped backwards. The heart being a muscle also requires oxygenated blood – there are coronary arteries that will branch off and supply the muscle cells with oxygen.

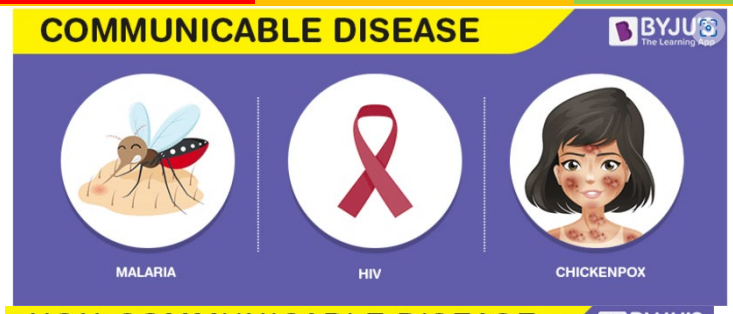
1. Blood flows into the two atria from the vena cava and the pulmonary vein.
2. The atria contract, pushing the blood into the ventricles
3. The ventricles contract forcing the blood into the pulmonary artery and the aorta and out the heart
4. The blood then flows to the organs through arteries and returns through veins
5. The atria fill again and the whole cycle starts again

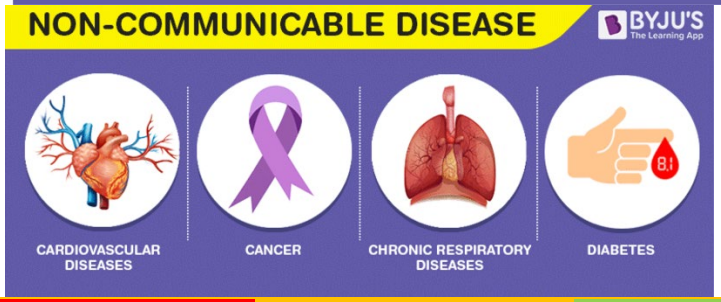
The heart has its own pacemaker cells, in the right atrium wall they produce a small electric impulse that spreads to the surrounding cells causing a contraction.



6. Health and disease	Red	Amber	Green

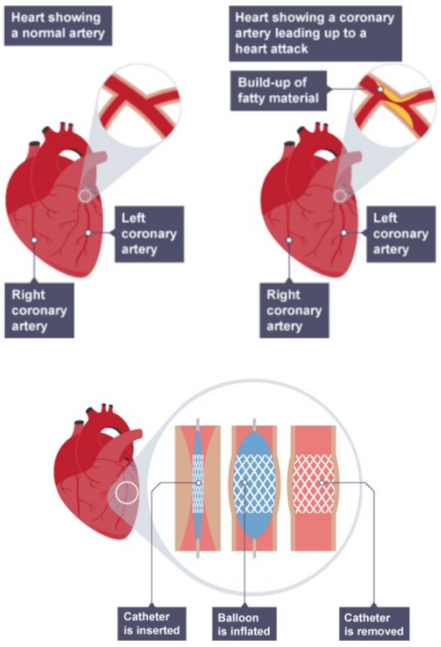
Diseases are responsible for causing ill health.
Health is known as the state of physical and mental wellbeing.
There are two types of diseases, communicable – can be spread from person to person (covid-19, flu, cold). Non-communicable diseases that cannot be transmitted from person to person (asthma, cancer, Coronary heart disease)
It is not just diseases that can make you ill, not looking after yourself can also impact this. Including
Diet, starvation anaemia, rickets and type 2 diabetes
Stress – risk of heart disease, cancer and mental health issues
Life situations – where you live in the world, your gender, ethnic group, number of children, sewage and rubbish disposal.





7. CVD	Red	Amber	Green

Cardiovascular disease is the term used to describe any disease of the heart or blood vessels
Coronary heart disease is where the arteries that supply blood to the heart are blocked by layers of fatty materials. The arteries get blocked up and it becomes difficult for blood to flow meaning lack of oxygen will be able to get to the heart causing a heart attack.
Treatment options:
Stents are wire metal tubes that are inserted to keep the arteries open, this means that the blood is able to travel to the heart muscles. These are good to reduce the risk of having a heart attack in patients, they work long term and have a quick recovery time. The risks associated are complications during surgery, and developing a blood clot in the area.
Statins are another method that reduces the amount of bad cholesterol in the blood preventing the build-up of fatty deposits. The advantages reduces the risk of stroke, heart attack by reducing bad cholesterol. Disadvantages are that they will need to be taken long term, people may forget to take them, there are some side effects also.



8. Risk factors for non-communicable diseases

A risk factor is something that will increase the likelihood of the development of a certain disease. The risk factors are generally to do with someone's lifestyle, environment and exercise. Not one of these will mean that you get a disease but a combination puts you at higher risk.

Red	Amber	Green
Smoking	**Has been proven to directly cause cardiovascular disease, lung disease and lung cancer.**	
Obesity	**Has been found to cause the body to be less sensitive or resistant to insulin**	
Drinking too much alcohol	**This has been shown to cause the development of liver disease. This can also occur when toxic chemicals leak from the gut from damaged intestines. Also causes damage in the nerve cells and the brain to loose volume**	
Smoking/drinking pregnant	**When pregnant smoking reduces the amount of oxygen able to get to the baby. Drinking alcohol whilst pregnant can be found to affect the babies development.**	
Cancer	**Can be caused by exposure to certain substances or radiation. Some things that cause cancer are still unknown.**	

9. Cancer

Cancer is where there is uncontrolled cell growth and division forming a growth of abnormal cells.
Benign tumours these are where the tumour will grow until there is no more room – the tumour will stay in this one place.
Malignant tumours this is where the tumour will grow but will spread from the tumour to the neighbouring healthy tissue. This will form secondary tumours within someone's body.

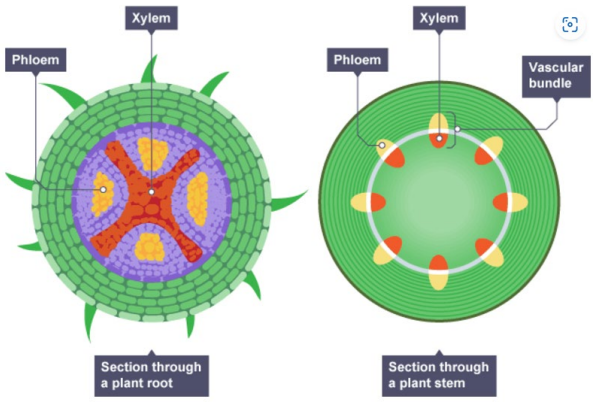
Red	Amber	Green
Type of Cancer	Risk Factors	Area
Lung	Smoking, air pollution, exposure to radon gas, previous lung disease and family history Prevent by not smoking and maintain a healthy diet and exercise regularly	
Skin	Exposure to the sun's rays using sunbeds, fair skin, family history and other skin conditions Prevent by wearing high factor sun cream, don't use sunbeds, wear hat and glasses	
Cervical	HPV virus, smoking, sexually transmitted infections, being overweight, long term use of oral contraceptives, family history and multiple pregnancies Prevent by using condoms, HPV vaccination, cervical smear at 25 years old, no smoking	
Breast cancer	Age, woman are at greater risk than men, inherited genes and race and ethnicity Prevent with breast cancer screening for those over the age of 45, regular exercise and healthy diet, breastfeeding can reduce your risk	
Testicular cancer	Men born with abnormal testicles, race (more common in white men) family history, tall men	

	are more at risk, smoking, infertility and sexually transmitted infections Prevent by using condoms, do not smoke, regularly get checked by GP
Brain tumours	Age, medical radiation, previous cancers, genetic history, being overweight, smoking, alcohol. Prevent by not drinking or smoking, healthy diet with exercise, show any signs and get to the GP.

10. Plant organisation

Red | Amber | Green

Plants are made of organs, for example stems, roots and leaves. The plant organs work together to make an organ system.
Epidermal tissue – covers the whole plant
Palisade mesophyll tissue – part of the leaf where most photosynthesis happens
Spongy mesophyll tissue – this is the leaf also and has big air spaces to allow gases to diffuse
Xylem and phloem – transport things like water, mineral ions and food around the plant
Meristem tissue – this is found at the growing tips of shoots and roots, this is able to differentiate



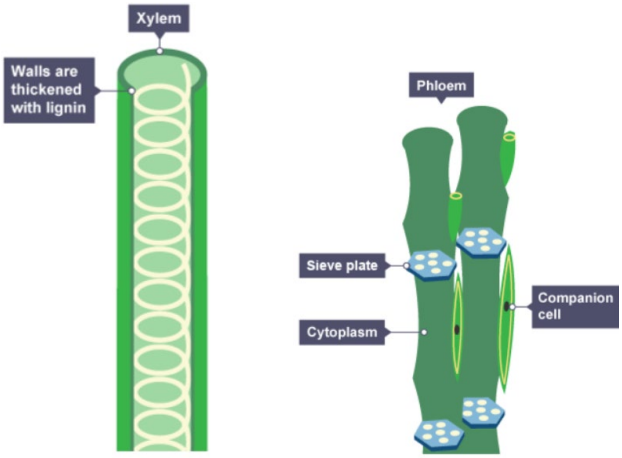
11. Rate of transpiration

Red | Amber | Green

Plants have two separate types of tissues phloem and xylem.

Phloem tubes are elongated living cells with small pores in the end walls to allow the flow of cell sap. They transport food substances (dissolved sugars) from the leaves to the rest of the plant for them to be used. The transport system goes in both directions from the roots to the tip, and from the tip to the roots. This is called translocation.

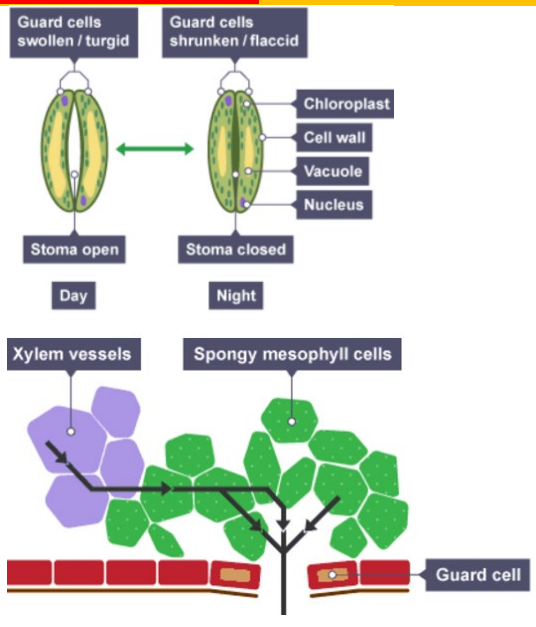
Xylem are tubes of dead cells that have been joined together end to end with no end walls between them. They have a hole down the middle, they have lignin that strengthens the walls. They carry water and mineral ions up the plant from the roots to the stem and leaves this is called the transpiration stream.



12. Transpiration and stomata

Red | Amber | Green

Stomata are tiny holes in the underside of leaves, they control water loss and are involved in gas exchange by opening and closing.
Transpiration can be effected by different things.
Light intensity – the better the light the higher the transpiration rate. Photosynthesis can't happen during the dark. Stomata will close as it starts to close, very little water is able to escape.
Temperature – the warmer it is the faster transpiration happens, water particles have more energy to evaporate and diffuse out the stomata
Air flow- if the air flow around the leaf is great then the transpiration rate will happen at a higher rate. If there is no wind the water will just surrounds the leave and reduces the rate of diffusion.
Humidity – the drier the air around the leaf the faster transpiration happens, if the air is humid there's a lot of water in it already so not much difference between the inside and outside of the leaf.

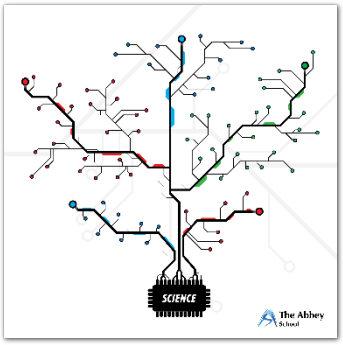


HOME LEARNING TASKS

Task Description	Done?
GCSEPod Plant tissues, organs and systems	
GCSEPod Lifestyle and health	
GCSEPod Animal tissues, organs and organ systems	

Physics Year 9 Block 2

- **P2A – Circuits**
- **P2B Domestic Electricity**
- **P3 Particle Model of Matter**



TERM FOCUS –
P2A BQ - What is Electricity?
P2B BQ – How do we use Electricity?
P3 BQ – How do we understand matter through the arrangement of particles?

Prior Learning Links

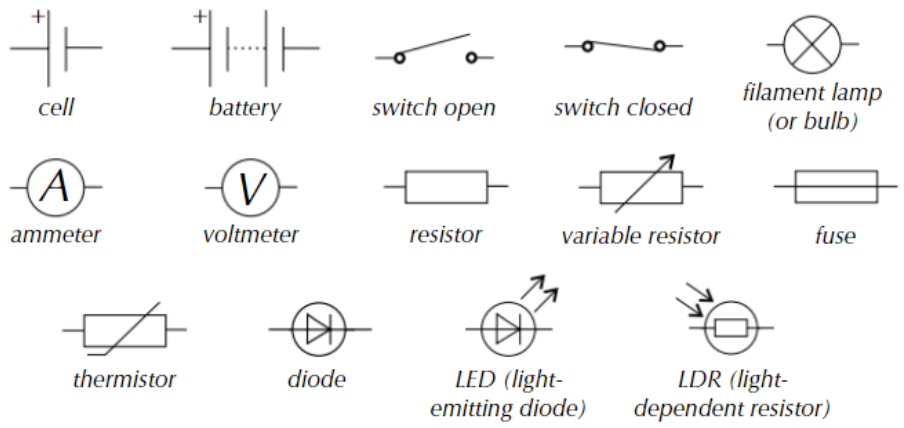
1. KS3 Science – Electricity
2. KS3 Science– Use of formula and basic formula symbols.
3. KS3 Science – Understanding of Particle theory
4. KS3 Science – Understanding of how to conduct a scientific investigation

Future Learning Links

1. Electricity and the arrangement of particles in matter all link to the fundamentals of physics and having a comprehensive knowledge of these topics is a necessity to understanding the Physics course.

1. Circuits , Current and Potential Resistance

Red | Amber | Green



<u>Voltmeters and Ammeters</u>

A Voltmeter measures potential difference. It is always connected 'across' a component in Parallel

An Ammeter measure current. It is always connected 'in line' with a component in Series

<u>Charge</u>

Charge (Q) is measured in coulombs (C).

(A coulomb of charge is just a very large group of electrons.)

Q= I x t

Q = Charge, measured in Coulombs (C)

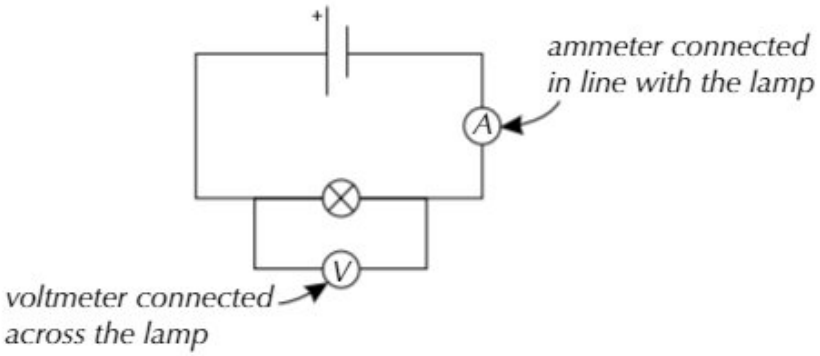
I = Current measured in Amperes (A)

t = Time, measured in Seconds, (s)

<u>Current</u>

Current is the flow of electric charge (electrons).

<u>Potential difference</u>



Potential difference is the driving force that pushes the force around.

A current can only flow if there is a source of potential difference.

2. Resistance Theory (inc Resistance of a Wire Practical)

Red Amber Green

Resistance

Resistance is anything in the circuit that reduces the flow of current

- It is measured in ohms, **Ω**

Ohm's Law:
The current through a resistor at *constant temperature* is ***directly proportional*** to the potential difference across it.

V = I x R

V = P.d measured in Volts, V

I = Current measured in Amperes, A

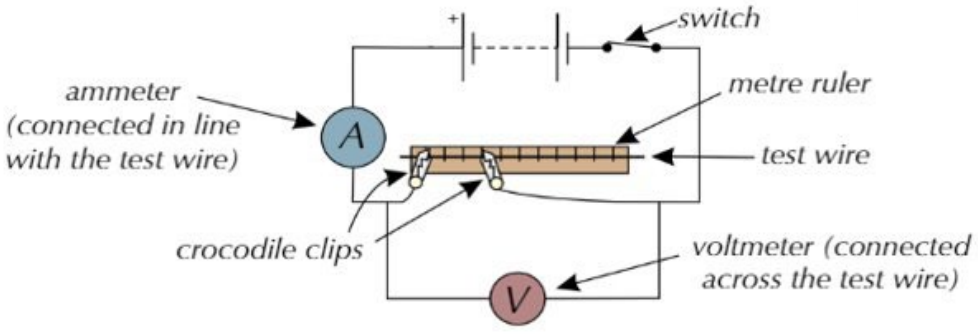
R = Resistance measured in Ohms, **Ω**

How does resistance of a wire vary with its length?
REQUIRED PRACTICAL

Your results

You should see that as the length of the wire increases, the resistance also increases.

Specifically, if the length of the wire doubles, the resistance doubles.

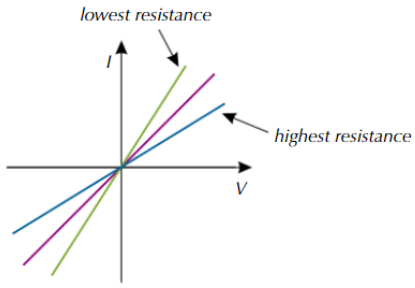


This is a **directly proportional** relationship.

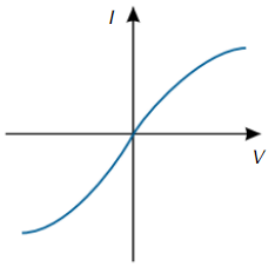
Therefore a wire is also known as an **ohmic conductor** as it follows Ohms law

I-V characteristics

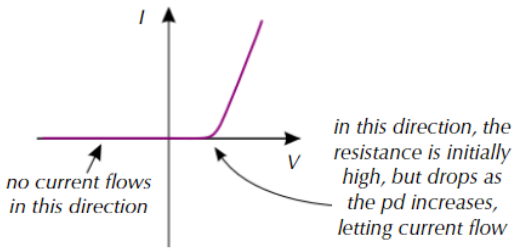
I-V characteristics (current-potential difference graphs) show how the current varies as you change the potential difference across a component.



The I-V graph for an ohmic conductor (resistor)



The I-V graph for a filament bulb



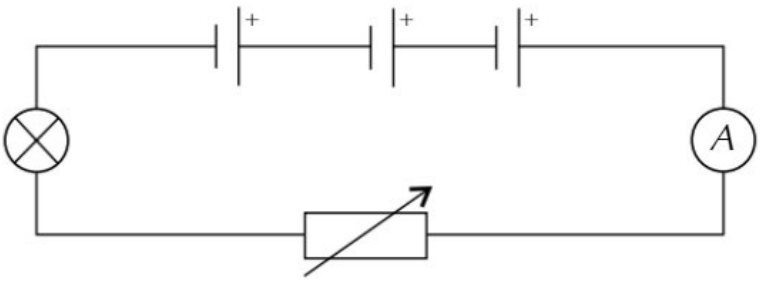
The I-V graph for a diode

3. Series Circuits

Red Amber Green

Series circuit

- All components are connected in one loop.
- If you disconnect one component, the circuit is incomplete, and they all stop.



$I_{total} = I_1 = I_2 = ...etc.$

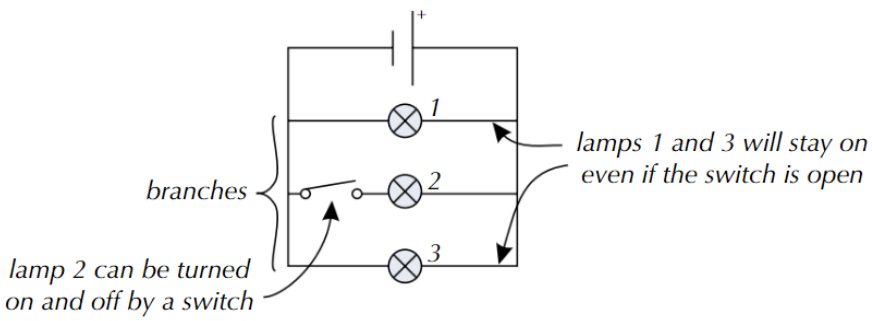
$V_{total} = V_1 + V_2 + ...etc.$

$R_{total} = R_1 + R_2 + ...etc.$

4. Parallel Circuits

Red Amber Green

Parallel Circuit



$I_{total} = I_1 + I_2 + ...etc.$

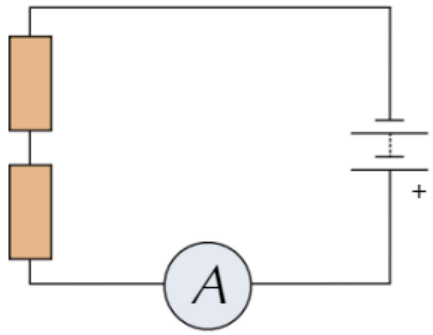
$V_{total} = V_1 = V_2 = ...etc.$

The total resistance of a parallel circuit is less than the resistance of the smallest resistance.

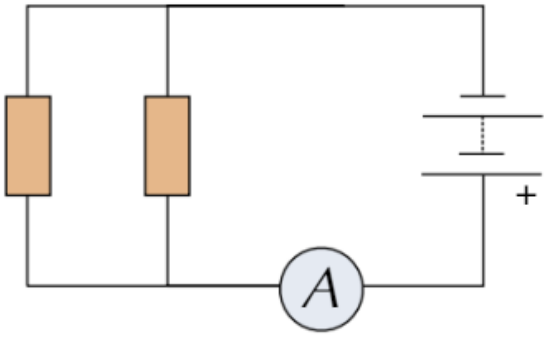
$R_{total} = <$ smallest resistance

5. Investigating Resistance

Red Amber Green



1. Connect the circuit for two resistors in series, as shown in the diagram.
2. Switch on and record the readings on the ammeter and the voltmeter.
3. Switch off and add another resistor in series.
4. Switch on and record the readings on the ammeter and the voltmeter.
5. Switch off and add the fourth resistor in series.
6. Switch on and record the readings on the ammeter and the voltmeter.
7. Calculate the total resistance for each number of resistors added.



1. Connect the circuit for two resistors in parallel, as shown in the diagram.
2. Switch on and record the readings on the ammeter and the voltmeter
3. Switch off and add another resistor in parallel (you will need to create another loop).
4. Switch on and record the readings on the ammeter and the voltmeter.
5. Switch off and add the fourth resistor in parallel (you will need to create another loop).
6. Switch on and record the readings on the ammeter and the voltmeter.
7. Calculate the total resistance for each number of resistors added

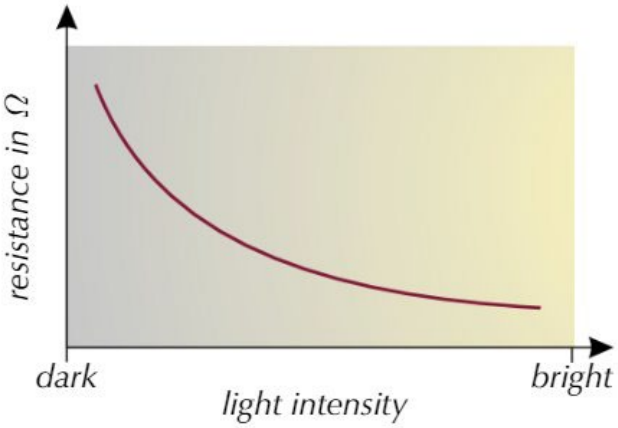
6. LDRs and Thermistors

Red Amber Green

Light-dependent resistors (LDRs)

An LDR is a resistor that is dependent on the intensity of light.

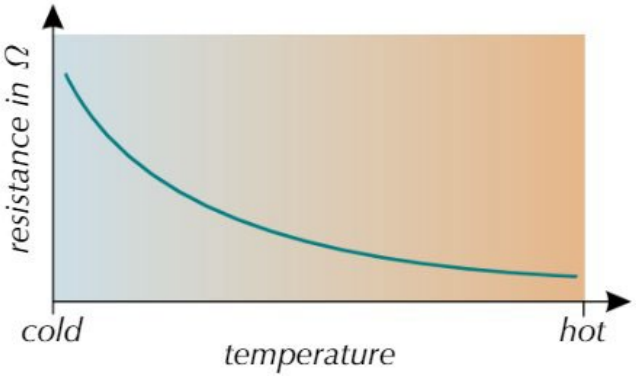
- In bright light, the resistance decreases
- In darkness, the resistance is highest



Thermistor

A thermistor is a resistor that is dependent on temperature.

- As the temperature increases, the resistance decreases.



7. Electricity in the Home

Red Amber Green

Alternating and direct current

Alternating current (AC)

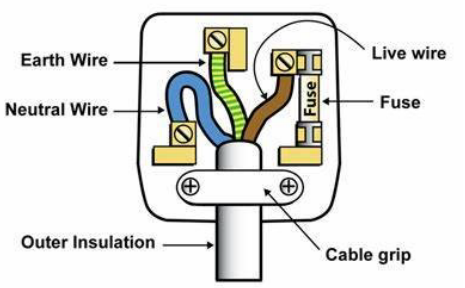
- The current is constantly changing direction.
- It is created by a direct potential difference, where the positive and negative ends of the source are fixed.

Direct current (DC)

- The current is always flowing in the same direction.
- This occurs due to alternating potential differences in which the positive and negative ends keep alternating

The UK domestic mains supply is an AC supply at around 230V.

- The frequency (how often the current changes direction) is 50 cycles per second (50 Hertz, Hz)



Earth wire

- The 'safety wire'
- Provides a low resistance path to the Earth

Live wire

- How the current enters the device
- Provides the 230 V

Neutral wire

- Completes the circuit
- Carries the current away

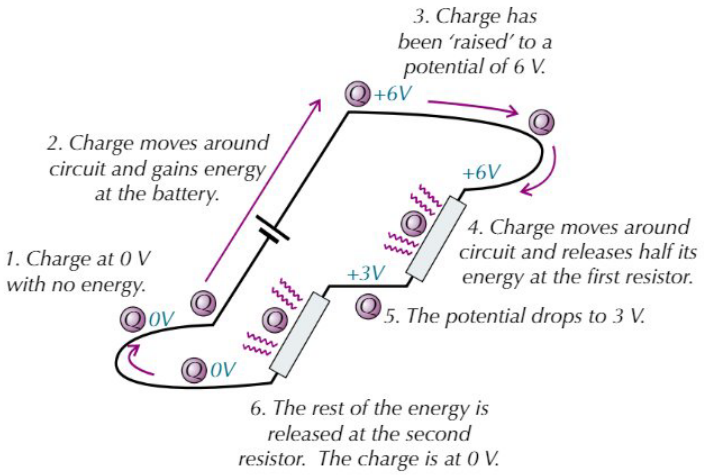
8. Power and Energy Transfer

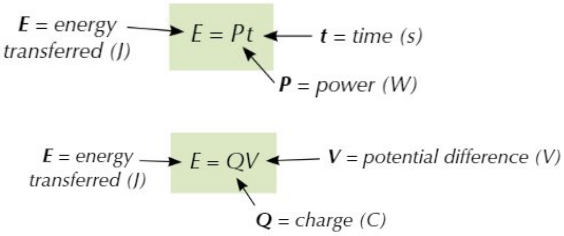
Red Amber Green

Potential difference and energy transfer

At the power supply, coulombs of charge (lots of electrons) are provided with energy (volts).

- When a component is reached, the charge gives up this energy.
- It then returns to the power source to gain energy again.





Calculating Electrical Power

Power = current x potential difference
(Watts) (Amps) (Volts)

Power = current² x resistance
(watts) (Amps) (Ohms)

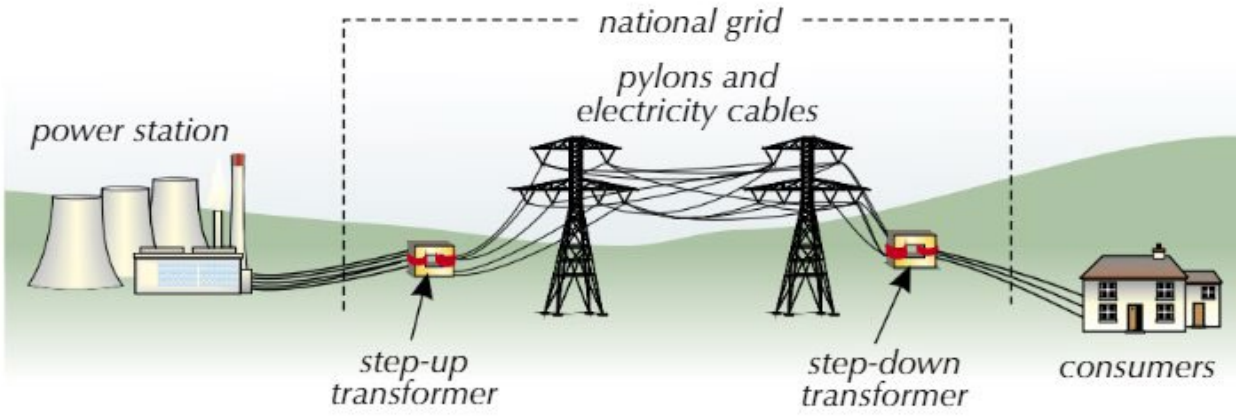
9. The National Grid

Red Amber Green

National grid

The national grid is a network of cables and transformers.

- It connects power stations to consumers.
- Electrical power is transferred from power stations to anywhere on the grid (homes, businesses).

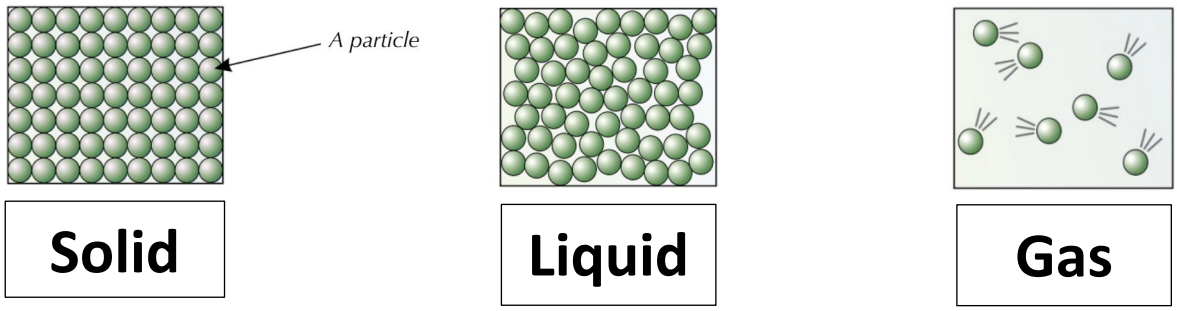


Transformers

A transformer is a device used to change the potential difference of an electrical supply.

- A s**tep-up** transformer **increases the potential difference** from the power station to allow for efficient transmission.
- A **step-down** transformer **reduces the potential difference** before it enters people's homes (domestic use).

10. Density and States of Matter Red Amber Green



Density

Density is a measure of how compact a substance is

There's a formula for finding the density of a substance:

ρ = density (kg/m^3) → $\rho = \frac{m}{V}$ ← **m** = mass (kg)

← **V** = volume (m^3)

Density can also be measured in g/cm^3 (1 g/cm^3 = 1000 kg/m^3).

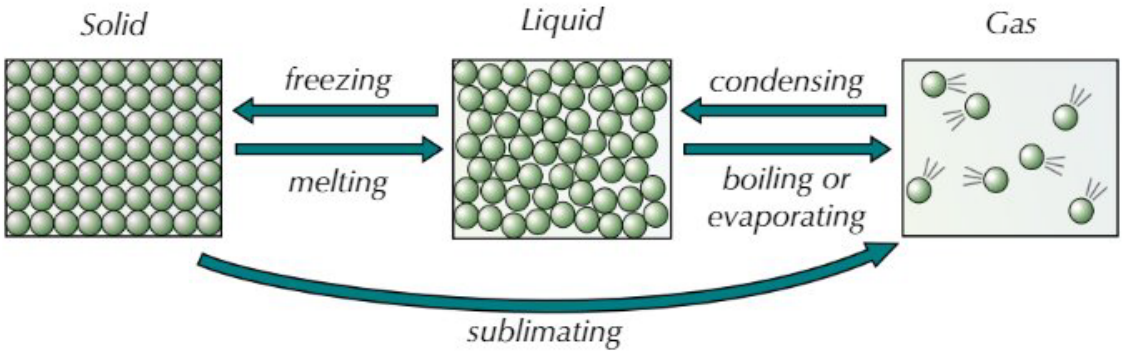
11. Specific Latent Heat and Changes of State Red Amber Green

Internal Energy

- A system of particles store energy in their movement (kinetic energy) and in their interactions with each other (potential energy).
- Internal energy is the total energy of all the particles' kinetic and potential energy stores.

Internal Energy - Heating

- **Heating** a system **transfers energy** to the particles.
- The particles gain kinetic energy, moving faster, so there is an increase in **internal energy**.
- This leads to an **increase in temperature** – depending on the mass of substance, the material (specific heat capacity) and the energy transferred.

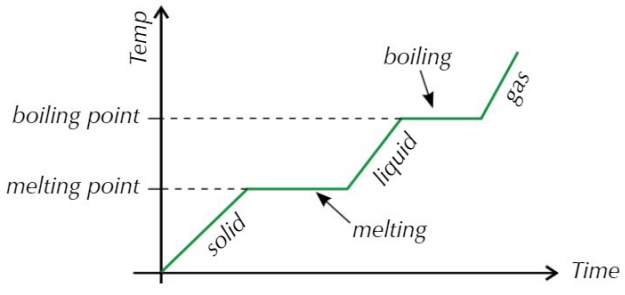


Internal Energy – Change of State

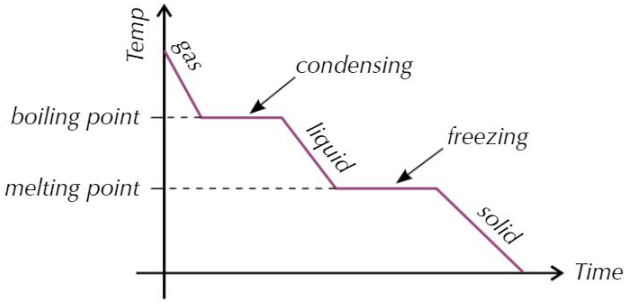
- If a substance is heated enough, particles will have enough energy to overcome the forces or bonds holding them together.

Change of State

- Changing state is a **physical change**. A change of state does **not** create a new substance, just a different arrangement.
- **Intermolecular** forces and bonds, those in between different molecules, are broken.
- The number of particles and what they are made of does not change. **Mass is conserved**.



Heating graph, showing temperature against time for a substance which is being heated.



Cooling graph, showing temperature against time for a substance which is being cooled.

12. Particle Motion in Gases | Red | Amber | Green

Temperature of gases

- Particles with a gas move with random speed and direction.

- Increasing the temperature of the gas transfers energy into the kinetic energy stores of the particles.
- The temperature of a gas is related to the average kinetic energy stores of its particles.

Gas Pressure

- As gas particles move about at high speeds, they collide into one another and anything else in their path.
- When a particle collides with a surface, it exerts a force on it.
- Pressure (force per unit area), is exerted by gas particles colliding with a surface.

Gas Pressure and Temperature

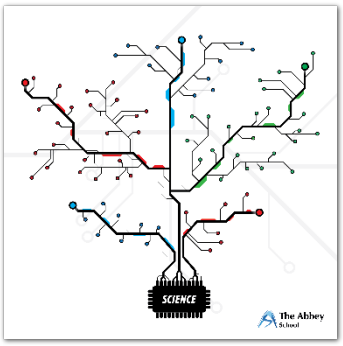
- Increasing temperature increases the speed of particles.
- Increasing the speed of particles increases the force and frequency of collisions.
- Increasing the force of collisions increases the net force on a surface.
- Increasing the net force increases the pressure.
- So, increasing the temperature of a gas will increase the pressure.

HOME LEARNING TASKS	
Task Description	**Done?**
Draw a circuit diagram with a cell , a filament lamp and a switch	
State the difference between a series circuit and a parallel circuit	
Describe the process of electricity being transported through the national grid Explain the role of the 3 different wires in a 3 core domestic plug	
Explain the change in energy levels when a material changes state	
Draw a graph which shows the change in state of a material	

Physics Year 9 Block 3

- **P3 Particle Model of Matter**
- **P4 Atomic Structure**
- **P5A Force Basics**

TERM FOCUS –
P3 BQ – How do we understand matter through the arrangement of particles?



Prior Learning Links

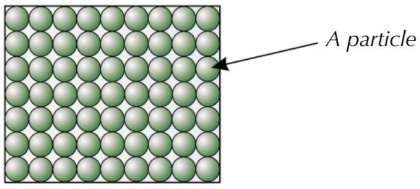
Particle knowledge AND model gained in KS2 Science.
Atoms in general are made of a nucleus and electrons that move around the nucleus.
Most of the mass of the atom is concentrated in the nucleus, which is in turn made up of protons and neutrons.
The numbers of the individual particles can tell us the identity of a particular atom and determine its properties.
KS2/3 Science – The Scientific Method
KS2/3 Science – Evaluating experiments and planning for the future

Future Learning Links

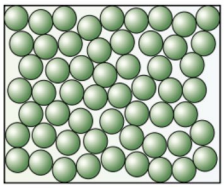
1. The arrangement of particles in matter all link to the fundamentals of physics and having a comprehensive knowledge of these topics is a necessity to understanding the Physics course.

1. Density and States of Matter

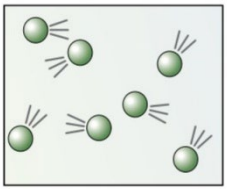
Red | Amber | Green



Solid



Liquid



Gas

<u>Density</u>
Density is a measure of how compact a substance is

There's a formula for finding the density of a substance:

ρ = density (kg/m^3) → $\rho = \frac{m}{V}$ ← m = mass (kg), V = volume (m^3)

Density can also be measured in g/cm^3 (1 g/cm^3 = 1000 kg/m^3).

2. Density Required Practical

Red | Amber | Green

Required Practical

Measuring the density of a regularly shaped object:

- Measure the mass using a balance.
- Measure the length, width and height using a ruler.
- Calculate the volume.
- Use the density ($\rho = m/V$) equation to calculate density.

Measuring the density of an irregularly-shaped object:

- Measure the mass using a balance.
- Fill a eureka can with water.
- Place the object in the water - the water displaced by the object will transfer into a measuring cylinder.
- Measure the volume of the water. This equals the volume of the object.
- Use the density ($\rho = m/V$) equation to calculate density.

Density

Density is a measure of how much mass there is in a given space.

Density (kg/m^3) = mass (kg) ÷ volume (m^3)

A more dense material will have more particles in the same volume when compared to a less dense material.

3. Internal Energy and Changes of State

Red | Amber | Green

Internal Energy

- A system of particles store energy in their movement (kinetic energy) and in their interactions with each other (potential energy).
- Internal energy is the total energy of all the particles' kinetic and potential energy stores.

Internal Energy - Heating

- **Heating** a system **transfers energy** to the particles.
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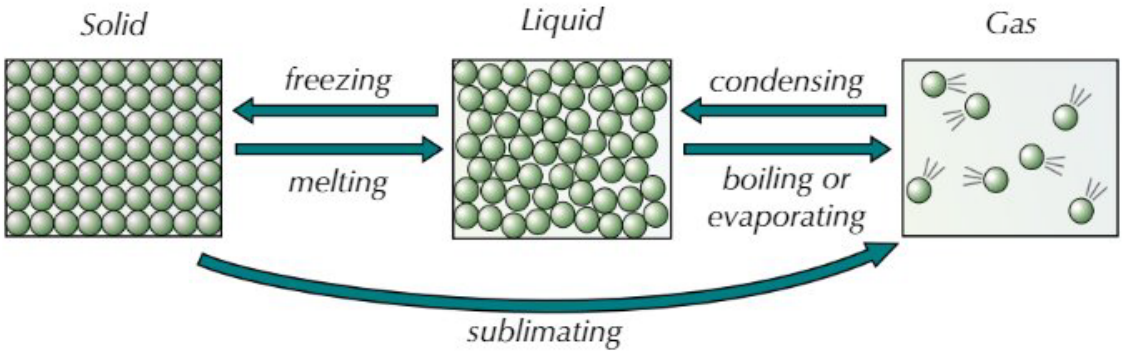

Internal Energy – Change of State

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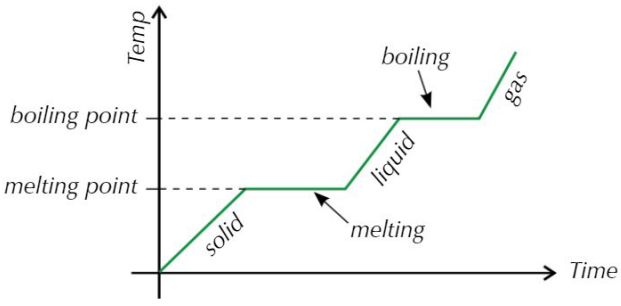


Figure 5: *Heating graph, showing temperature against time for a substance which is being heated.*

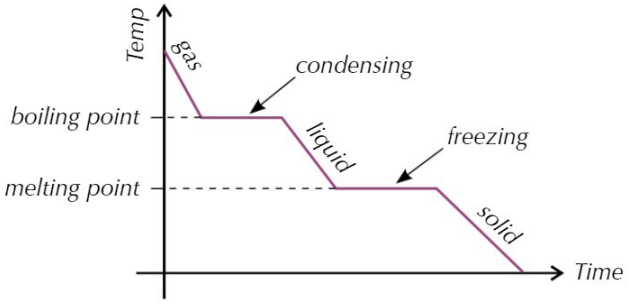


Figure 6: *Cooling graph, showing temperature against time for a substance which is being cooled.*

4. Specific Latent Heat

Red | Amber | Green

Specific Latent Heat

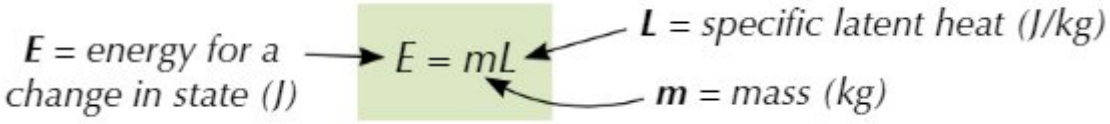
Specific latent heat is the amount of energy needed to change 1 kg of a substance from one state to another without changing its temperature.

Specific Latent Heat of Fusion

The energy for changing between a solid and a liquid is the specific latent heat of fusion.

Specific Latent Heat of Vaporisation

The energy for changing between a liquid and a gas is the specific latent heat of vaporisation.



5. Particle Motion in Gases

Red | Amber | Green

Temperature of gases

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- The temperature of a gas is related to the average kinetic energy stores of its particles.

Gas Pressure

- As gas particles move about at high speeds, they collide into one another and anything else in their path.
- When a particle collides with a surface, it exerts a force on it.
- Pressure (force per unit area), is exerted by gas particles colliding with a surface.

Gas Pressure and Temperature

- Increasing temperature increases the speed of particles.
- Increasing the speed of particles increases the force and frequency of collisions.
- Increasing the force of collisions increases the net force on a surface.
- Increasing the net force increases the pressure.
- So, increasing the temperature of a gas will increase the pressure.

The History of the Atom
6. LQ: How has our understanding of the atom developed over time?

Red | Amber | Green

Key term/question	Definition/answer
1. What are the three subatomic particles?	Protons, neutrons and electrons
2. Which subatomic particles are found in the nucleus?	Protons and neutrons
3. Which subatomic particle orbits the nucleus?	Electrons
4. The mass number is …	number of protons and neutrons. (Big number)
5. The atomic number is…	number of protons and therefore the number of electrons (Small number)
6. Define ion.	An atom gains of lose electrons to become charged.
7. What is an isotope?	Same element with the same number of protons, but different number of neutrons.
8. What is the structural difference between Carbon- 12 and Carbon-14?	Number of neutrons
9. What are the three types of radioactive decay?	Alpha, Beta, Gamma
10. What is an alpha particle composed of?	A helium nucleus: two protons and two neutrons.
11. What is a beta particle?	A fast-moving electron
12. How does beta decay occur?	A neutron in the nucleus turns into a proton and electron. The proton remains and the electron is ejected.
13. What is gamma radiation?	An electromagnetic wave emitted from the nucleus
14. What was Rutherford's experiment and why was it important?	Rutherford fired alpha particles at a thin sheet of gold. 1 alpha particle in 8000 bounced back, disproving the plum pudding model and it suggested that atoms have a dense nucleus.
15. What is irradiation?	When an object is exposed to radiation
16. What is contamination?	When radioactive material gets on an object.
17. How is radiation measured?	Using a Geiger-Muller counter. (In Becquerels: Bq)

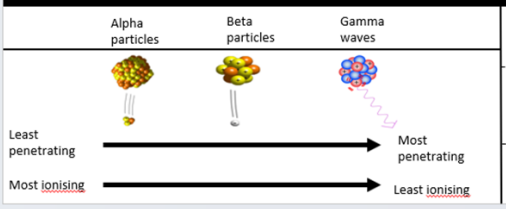
1. Subatomic particle properties

What is the mass of a proton?	1
What is the mass of a neutron?	1
What is the mass of an electron?	0 (1/2000)
What is the charge of a proton?	+1
What is the charge of a neutron?	0
What is the charge of an electron?	-1

2. Timeline of the atom

Date	Model of the atom	Diagram
1805	Indivisible spheres	
1897	Plum pudding model	
1909	Nuclear model following Rutherford's experiment	
1913	Bohr model	
1919	Bohr model with protons in the nucleus	
1932	Bohr with neutrons and protons in the nucleus	

3. Radioactive Decay



4. Nuclear equations

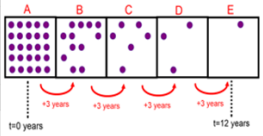
Alpha decay: $^{226}_{88}Ra \rightarrow {}^{222}_{86}Rn + {}^{4}_{2}He$ (-4, -2)

Beta decay: $^{8}_{3}Li \rightarrow {}^{8}_{4}Be + {}^{0}_{-1}e$ (stays the same, +1)

Gamma decay: $^{60}_{28}Ni \rightarrow {}^{60}_{28}Ni$

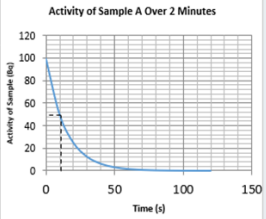
P4 - Atomic structure

5. Half-life



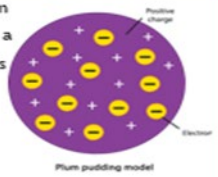
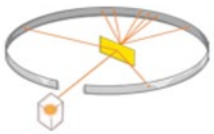
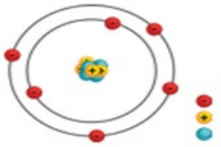
Half life: The time taken for the number of radioactive nuclei/decay events to decrease by half.

Calculating half-life from a graph.



1. Choose two values from the activity/number of nuclei (Y axis). One number should be half of the other. E.g 100 and 50.
2. Use a ruler to draw across to the plotted line for each value.
3. Use a ruler to draw down to the time (X axis)
4. Find the difference in time, which shows the half life. In the example the half-life is 10 seconds.

Developing the Model of the Atom

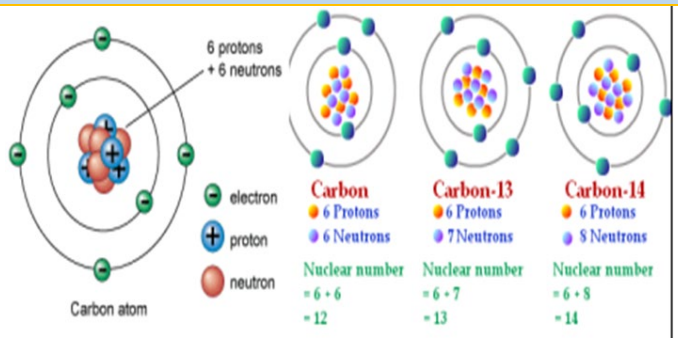
Scientist	Time	Contribution
John Dalton	Start of 19th century	Atoms were first described as solid spheres.
JJ Thomson	1897	Thomson suggested the plum pudding model - the atom is a ball of charge with electrons scattered within it. 
Ernest Rutherford	1909	Alpha Scattering experiment - Rutherford discovered that the mass is concentrated at the centre and the nucleus is charged. Most of the mass is in the nucleus. Most atoms are empty space. 
Niels Bohr	Around 1911	Bohr theorized that the electrons were in shells orbiting the nucleus. 
James Chadwick	Around 1940	Chadwick discovered neutrons in the nucleus.

Key term/question	Definition/answer
1. What are the three subatomic particles?	Protons, neutrons and electrons
2. Which subatomic particles are found in the nucleus?	Protons and neutrons
3. Which subatomic particle orbits the nucleus?	Electrons
4. The mass number is …	Number of protons and neutrons. (Big number)
5. The atomic number is…	number of protons and therefore the number of electrons (Small number)
6. Define ion.	An atom gains of lose electrons to become charged.
7. What is an isotope?	Same element with the same number of protons, but different number of neutrons.
8. What is the structural difference between Carbon- 12 and Carbon-14?	Number of neutrons

7. The structure of the atom

LQ: What do modern scientists understand about an atom's structure?

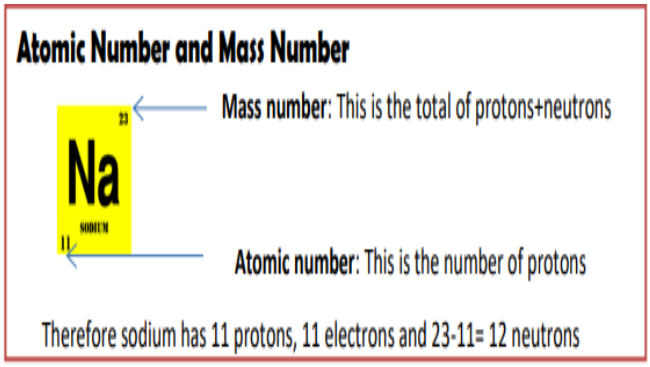
Red | Amber | Green



Isotopes

An isotope is an element with the same number of protons but a different number of neutrons. They have the same atomic number, but different mass numbers.

Isotope	Protons	Electrons	Neutrons
$^{1}_{1}H$	1	1	0
$^{2}_{1}H$	1	1	1
$^{3}_{1}H$	1	1	2



Some isotopes are unstable and, as a result, decay and give out radiation. Ionising radiation is radiation that can knock electrons off atoms. Just how ionising this radiation is, depends on how readily it can do that.

8. Radioactivity

LQ: How can unstable atoms become stable through radioactive decay?

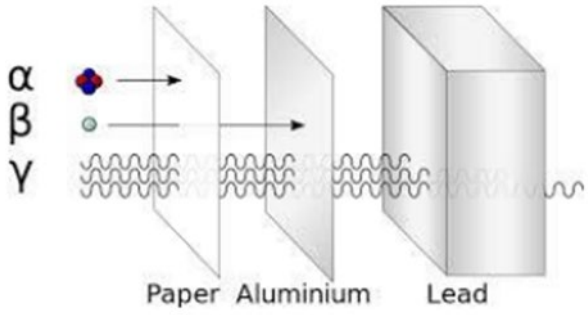
Red | Amber | Green

Key term/question	Definition/answer
9. What are the three types of radioactive decay?	**Alpha, Beta, Gamma**
10. What is an alpha particle composed of?	**A helium nucleus: two protons and two neutrons.**
11. What is a beta particle?	**A fast-moving electron**
12. How does beta decay occur?	**A neutron in the nucleus turns into a proton and electron. The proton remains and the electron is ejected.**
13. What is gamma radiation?	**An electromagnetic wave emitted from the nucleus**
14. What was Rutherford's experiment and why was it important?	**Rutherford fired alpha particles at a thin sheet of gold. 1 alpha particle in 8000 bounced back, disproving the plum pudding model and it suggested that atoms have a dense nucleus.**
15. What is irradiation?	**When an object is exposed to radiation**
16. What is contamination?	**When radioactive material gets on an object.**
17. How is radiation measured?	**Using a Geiger-Muller counter. (In Becquerels: Bq)**

The three types of radiation

Use this table to find information about and to compare α, β and γ radiation

	Alpha (α)	Beta (β)	Gamma (γ)
Nature	It's a nucleus of helium ${}^{4}_{2}He$. Two protons and two neutrons	It's an electron e^-	It's an electromagnetic wave
Charge	+2	-1	0
Mass	Relatively large	Very small	No mass
Speed	Slow	Fast	Speed of light
Ionizing effect	Strong	Weak	Very weak
Most dangerous	When source is inside the body	When source is outside the body	When source is outside the body



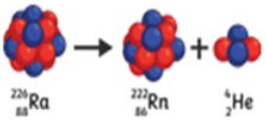
$^{235}_{92}U$ decay by releasing an alpha particle $\rightarrow$ $^{4}_{2}\alpha$ + $^{231}_{90}Th$

$^{14}_{6}C$ decay by releasing an beta particle $\rightarrow$ $^{0}_{-1}\beta$ + $^{14}_{7}N$

$^{235}_{92}U$ decay by releasing a gamma wave $\rightarrow$ $^{0}_{0}\gamma$ + $^{235}_{92}U$

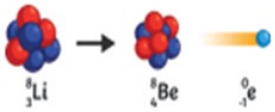
Alpha Decay Equations

An alpha particle is made of two protons and two neutrons. The atomic number goes down by two and its mass number decreases by four.



Beta Decay Equations

A neutron turns into a proton and releases an electron. The mass of the nucleus does not change but the number of protons increases.

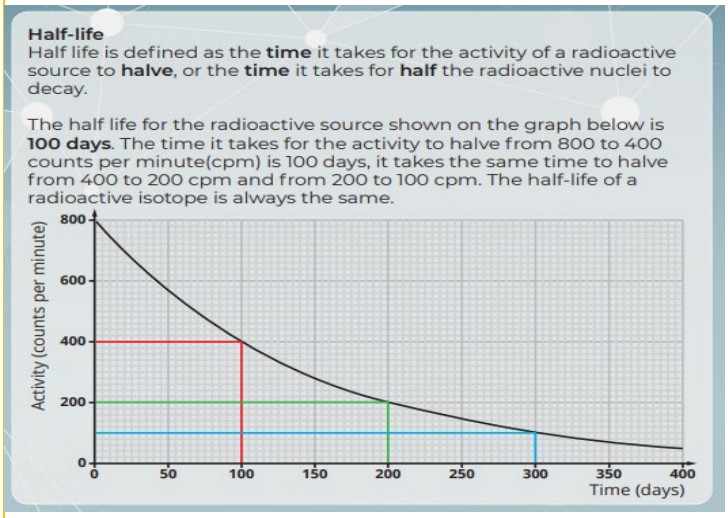


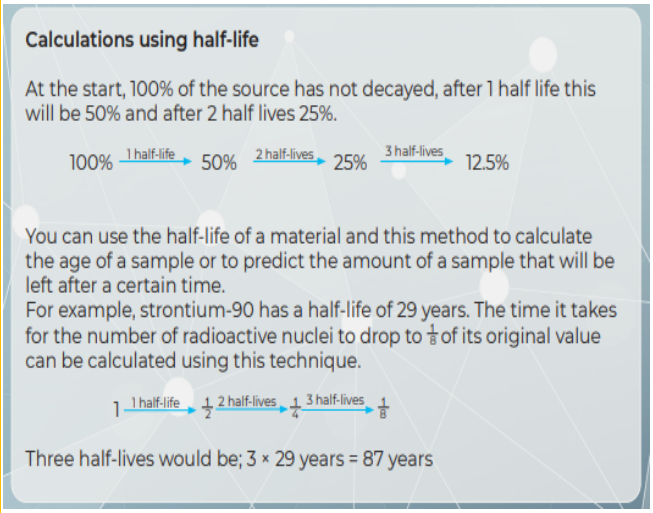
Gamma rays

There is no change to the nucleus when a radioactive source emits gamma radiation. It is the nucleus getting rid of excess energy.

9. Activity and Half-life
LQ: How does the radioactive substance's activity change over time?

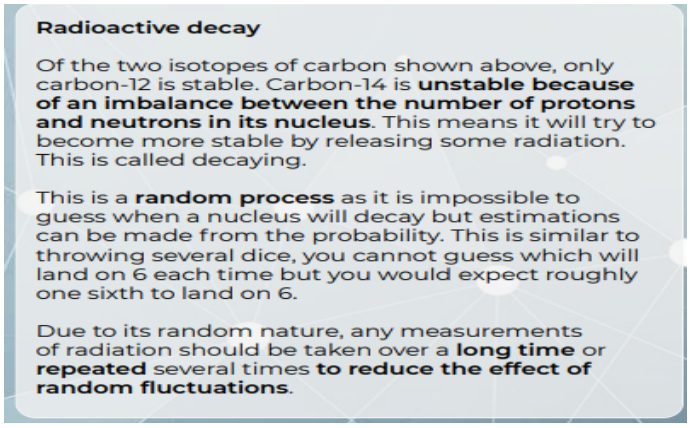
Red | Amber | Green





10. Irradiation and contamination
LQ: What is the difference between irradiation and contamination?

Red	Amber	Green



Irradiation and Contamination

- What is the difference?
- Irradiation involves exposure to ionising EM waves (UV, X-rays, gamma rays) and alpha or beta particles.
- Contamination involves radioactive material (which produces ionising radiation) being physically transferred.
- e.g. alpha sources outside the body are harmless because our skin is a barrier to alpha particles. However, if radioactive alpha sources (like radon) are airborne they can be breathed in and then produce alpha particles in the lungs where they can do damage.

Topic 5 Forces

L1: Contact and Non-contact Forces & L2: Weight ,mass and Gravity

LQ: What is the difference between contact and non-contact forces?

LQ: How can gravity and mass be used to calculate weight?

Red	Amber	Green

Scalar and vector quantities

Scalar quantities have only a magnitude. Vector quantities have a magnitude and direction.

Scalar	Vector
Distance	Displacement
Speed	Velocity
mass	Acceleration
Temperature	Force
Pressure	Weight
Volume	Momentum
Work	

Contact and Non-contact Forces

Forces are always the result of objects **interacting** with each other. For instance, the force of gravity keeping this piece of paper on the desk is the result of the interaction between the Earth's mass and the paper's mass. All forces can be classified as contact or non-contact forces.

Examples of contact forces: friction, air resistance, tension, the normal contact force. Examples of non-contact forces: gravitational force, electrostatic force and magnetic force.

Key Terms	Definitions
Quantity	Anything that can be given a numerical value.
Magnitude	Size of a quantity. E.g. a distance of 5 metres has a higher magnitude than 2 metres.
Scalar	Describes quantities that only have a magnitude (size). E.g. speed (how fast something is moving).
Vector	Describes quantities that have a magnitude AND a specific direction. E.g. velocity (speed in a particular direction)
Force	A vector quantity. Forces are pushes or pulls that act on an object. Forces have size and direction. Forces are the result of objects interacting with each other.
Contact forces	For these forces to act, the interacting objects have to be physically touching.
Non-contact forces	For these forces to act, the interacting objects don't have to be touching (they are physically separate).
Resultant force	The single overall force acting on an object. It has the same effect as all the forces acting on the object all together. The resultant force is the vital thing in working out how an object will move. If there is a resultant force, the object's speed will change; or the shape of the object will change; or the direction of the object will change. If the resultant force is nothing (the forces cancel out), the object will keep doing what it was doing – either not moving at all, or moving along at a steady speed.

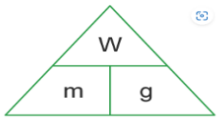
MASS AND WEIGHT

Mass means how much matter an object contains, whereas **weight** is the force on an object due to gravity. Mass is measured in **kg**, whereas weight is measured in **N**. Mass is measured using a **balance,** whereas weight is measured using a **newton meter**. Mass does not vary depending on gravitational field strength, whereas weight does depend on gravitational field strength.

Gravity

Gravity is a force that acts between any two objects with mass. W = mg is the equation that relates weight to mass and gravitational field strength. On Earth g = 10 N/kg. Gravity is the force that holds objects in orbit.

The Wmg triangle



W = weight

m = mass

g = gravitational field strength

$W = mg$	$W = m \times g$
$m = \frac{W}{g}$	$m = W \div g$
$g = \frac{W}{m}$	$g = W \div m$

Challenge question: How do forces shape the movement of objects in the world?
Suggested reading: GCSCEPOD https://www.bbc.co.uk/bitesize/topics/z4brd2p/articles/zs3896f
Forces - GCSE Physics (Single Science) - BBC Bitesize

HOME LEARNING TASKS	
Task Description	**Done?**
Look, cover, write the definition of keywords used in topic 1-history of an atom. Draw a timeline showing the history of the atom, starting with the ancient Greeks in 500BC, and ending with the nuclear model.	
Describe the plum pudding model of an atom Compare the plum pudding to the current nuclear model of an atom.	
Write a definition of: mass number, atomic number and an isotope. A doctor weighs 600 N. A lift moves her 40 m to the top floor of a hospital. Calculate the work done on the doctor by the lift. In a scrum, a rugby team pushes the other team backwards 5 m using a force of 1000 N. Calculate the work done moving the other team. A sample has a half-life of 8 hours. It has an initial activity of 200 Bq. Calculate the activity of the sample after 1 day.	
Write a description of the three different radiation sources in terms of: their ionising ability, how far they travel, and what they are stopped by. A nucleus emits a gamma ray; what happens to the mass and charge of the atom? Give the definition of an isotope. Give the definition of half-life.	

Science Year 9 Term 3 – C4 "Chemical Changes"

TERM FOCUS –
Big Ideas: How **do energy changes in chemical reactions affect the speed and feasibility of those reactions?**
What **factors influence how quickly reactions happen, and why is controlling reaction rates important in real-world applications?**

Prior Learning Links

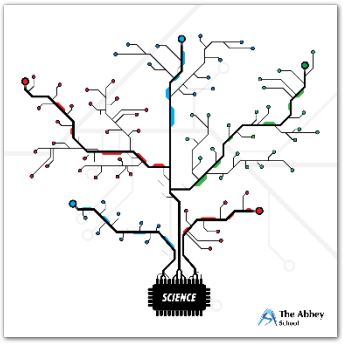
Introduction to Chemical Reactions and Equations
Identifying reactants and products
Balancing basic chemical equations
Energy in Chemical Reactions
Idea of energy changes
States of Matter and Changes in State
The Periodic Table and Reactivity of Elements
KS2/3 Science – The Scientific Method
KS2/3 Science – Evaluating experiments and planning for the future

Future Learning Links

1. KS3 Science Investigations
2. GCSE Required Practical Activities
3. GCSE Science Investigations

Acids and Base
https://youtu.be/vt8fB3MFzLk?feature=shared

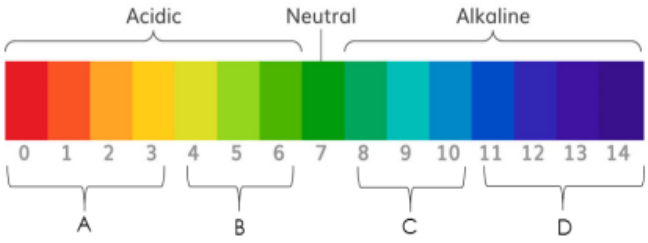
Electrolysis
https://youtu.be/7ulIq_Ofzgw?feature=shared



Topic 4
Acids and alkalis

Red | **Amber** | **Green**

5. pH scale



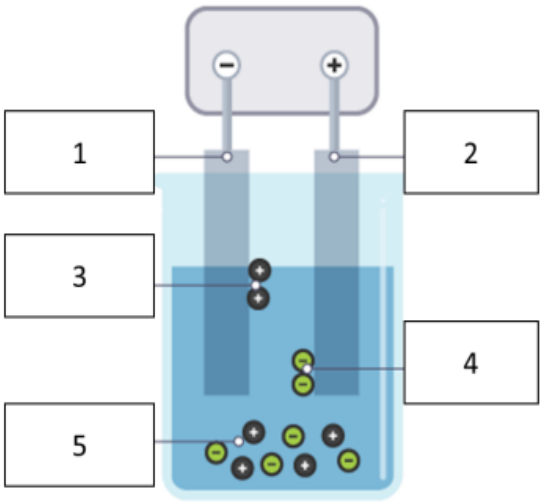
	Name	Level of ionisation in water
A	Strong acid	Fully
B	Weak acid	Partially
C	Weak base	Partially
D	Strong base	Fully

6. Equation for all neutralisations

$$H^+_{(aq)} + OH^-_{(aq)} \rightarrow H_2O_{(l)}$$

7. Electrolysis

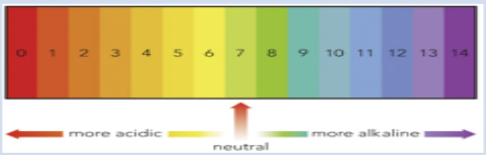
1	Cathode	The negative electrode
2	Anode	The positive electrode
3	Positive ion	Move to cathode
4	Negative ion	Move to anode
5	Electrolyte	The ions that are being electrolysed



8. Electrolysis of aqueous solutions

Place in reactivity series	Product of electrolysis
Metal more reactive than hydrogen	Hydrogen is produced at the cathode
If the negative ion is not a halide ion (group 7)	Oxygen is produced at the anode

The pH Scale



pH is a number to show the acidity or alkalinity of a solution based on a scale on which 7 is neutral, lower are acid and higher values more alkaline.

The indicator colours are produced when UNIVERSAL INDICATOR is added to a solution.

Acids produce hydrogen ions H^+ and alkalis produce hydroxide ions OH^- when dissolved in water.

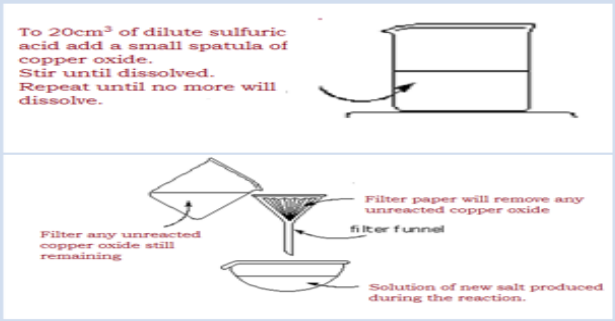
In all neutralisation reactions the equation is:

$$H^+_{(aq)} + OH^-_{(aq)} \rightarrow H_2O_{(l)}$$

The acid used provides the metal salt produced with its name:

Hydrochloric acid → chloride
Sulfuric acid → sulfate
Nitric acid → nitrate

Copper oxide and sulfuric acid reaction



How do we know a chemical reaction has taken place?
•Colour change (black → blue)
•Heat given out (exothermic reaction)
•New product is formed (a metal salt)

The general equation for the reaction is

Metal oxide + acid → metal salt + water

Equation for the reaction;

Copper oxide + sulfuric acid → copper sulfate + water

$$CuO_{(s)} + H_2SO_{4\,(aq)} \rightarrow CuSO_{4(aq)} + H_2O_{(l)}$$

Reactions of acids | **Red** | **Amber** | **Green**

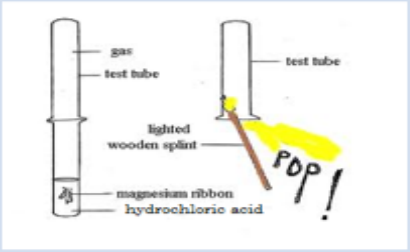
Metals reacting with acids

Some metals will react with acid.

To test tubes add a few cm^3 of the acid:
To the test tubes add a few pieces of the metal and record your observation.

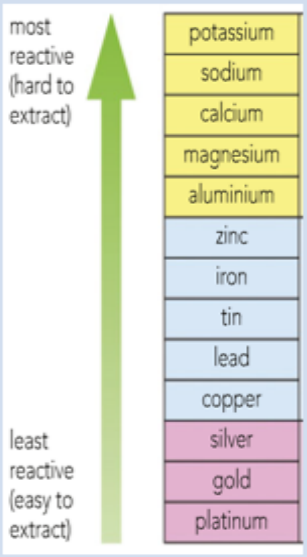
How do we know a chemical reaction has taken place?
•Observe fizzing (effervescence)
•Heat given out (exothermic reaction)
•New product is formed (a metal salt)

The gas produced is always HYDROGEN and is tested:



Why is hydrogen produced?
The metals which produce hydrogen (those above copper on the reactivity series – see next column) are MORE reactive than

The Reactivity Series of Metals



The general equation for the reaction is:

Metal + Acid → Metal Salt + Hydrogen

Equation for the reaction:

Iron + hydrochloric acid → iron chloride + hydrogen

$$Fe_{(s)} + 2\,HCl_{(aq)} \rightarrow FeCl_{2\,(aq)} + H_{2\,(g)}$$

Metal carbonates reacting with acids

Metal carbonates will react with acids.

Set up the equipment as shown:

How do we know a chemical reaction has taken place?
- Observe fizzing (effervescence)
- New product is formed (a metal salt)
- A colour change (if a transition metal carbonate is used)
- Heat energy is released (exothermic)

The gas produced is CARBON DIOXIDE. The test is LIMEATER goes CLOUDY/MILKY.

The general equation.

Metal Carbonate + acid → metal salt + carbon dioxide + water

Calcium Carbonate + hydrochloric acid → calcium chloride + carbon dioxide + water

$$CaCO_3 + 2HCl \rightarrow CaCl_2 + CO_2 + H_2O$$

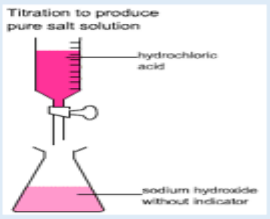
Metal hydroxides reacting with acid

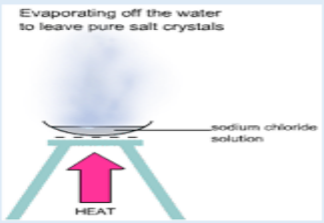
The neutralisation reaction between an acid and an alkali produces water and a salt.

Complete the practical:

For this acid/alkali titration the indicator used is PHENOLPHTHALEIN – this is made from one compound.

A **pink to colourless** change is observed when the titration is complete and WATER is formed.





This is shown by the equation:

metal hydroxide + acid → salt + water

Sodium hydroxide + hydrochloric acid → sodium chloride + water

$$NaOH_{(aq)} + HCl_{(aq)} \rightarrow NaCl_{(aq)} + H_2O_{(l)}$$

REMEMBER :

In all neutralisation reactions the equation is:

$$H^+_{(aq)} + OH^-_{(aq)} \rightarrow H_2O_{(l)}$$

Required practical 8 – Making soluble salts | **Red** | **Amber** | **Green**

KNOWLEDGE ORGANISER

Chemistry Topic C4 Chemical changes

Section 3: Extracting Metals

Very unreactive metals e.g. Silver and gold	Found **naturally** in the ground. Extracted using **mining**.
Metals **less reactive than carbon** e.g. Zinc, Iron & Lead	Metals less reactive than carbon can be extracted from their ores by **reduction** using carbon, coke or charcoal. $2PbO(s) + C(s) \rightarrow 2Pb(s) + CO_2(g)$ Carbon has displaced lead from its oxide because carbon is more reactive than lead. This extraction takes place in a **blast furnace** at high temperature.
Metals **less reactive than hydrogen** e.g. Tungsten	Metals less reactive than hydrogen can be extracted from their ores by **reduction** using hydrogen. Tungsten is obtained from its oxide by reduction using hydrogen. $WO_3(s) + 3H_2(g) \rightarrow W(s) + 3H_2O(g)$
Metals more reactive than carbon e.g. Aluminium	Extracted by **electrolysis**.

Section 4a: Salts from metals (neutralisation reactions)

With metal	Acid + Metal → Salt + Hydrogen $2HCl(aq) + Fe(s) \rightarrow FeCl_2(aq) + H_2(g)$
With alkali	Acid + Metal Hydroxide → Salt + Water $HCl(aq) + NaOH(aq) \rightarrow NaCl(aq) + H_2O(l)$
With metal oxide	Acid + Metal Oxide → Salt + Water $2HCl(aq) + MgO(s) \rightarrow MgCl_2(aq) + H_2O(l)$
With carbonate	Acid + Metal Carbonate → Salt + Water + Carbon Dioxide $2HCl(aq) + CaCO_3(s) \rightarrow CaCl_2(aq) + H_2O(l) + CO_2(g)$

Section 4b: Making a Soluble Salt

A salt is a compound formed when the hydrogen in an acid is wholly, or partially, replaced by metal or ammonium ions.
Salts are made when a suitable metal, metal carbonate, metal oxide or metal hydroxide is reacted with acid.

Crystallisation	Evaporation
Pure dry crystals can be obtained from solution by: • **Add solid** metal, metal carbonate, metal oxide or metal hydroxide **to an acid**. • Add solid **until no more reacts** (saturated solution). • **Filter** off excess solid. • **Evaporate** to remove some of the water. • Leave to **crystallise**. • Filter the crystals • Leave to dry **in air**/in a **desiccator/oven**.	When you react an acid with an alkali, you need to be able to tell when the acid and alkali **have completely reacted**. Then you can collect pure dry crystals of the salt. • Carry out an **acid/alkali titration** using an indicator to see how much acid **reacts completely** with alkali • **Run that volume of acid again** into solution of alkali but **without indicator**. • Pour solution into evaporating basin • Heat • **Leave to crystallise** / boil off water

Section 5: Strong and weak acids

Aqueous solutions of **weak acids have higher pH** than solutions **of strong acids with the same concentration**. Strong acids **completely ionise** in solution to produce hydrogen ions. e.g. $HCl(aq) \rightarrow H^+(aq) + Cl^-(aq)$
Weak acids **only partially ionise** in solution. The reaction is **reversible** (unlike the ionisation of strong acids.) So as the molecules of the weak acid split up to form its ions, the ions recombine to form the original molecule.
e.g. Ethanoic acid: $CH_3COOH(aq) \rightleftharpoons CH_3COO^-(aq) + H^+(aq)$
A position of **equilibrium** is reached in which both the original molecule (majority) and its ions (minority) are present.

Measuring acidity or alkalinity

Indicators are substances that change colour when you add an acid or an alkali. Litmus is an indicator that turns red in acid and blue in alkali. You can also use a pH meter which gives a digital reading of pH.

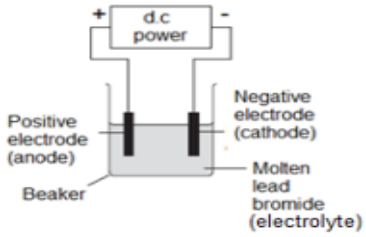
Electrolysis Electrolysis of metal ores Electrolysis of aqueous solutions Required practical 9 – Investigating electrolysis of an aqueous solution	Red	Amber	Green

KNOWLEDGE ORGANISER

Chemistry Topic C4 Chemical Changes

Section 1 Electrolysis key terms

Electrolysis	The process of **splitting an ionic compound** by passing **electricity** through it.
Electrolyte	An **ionic compound** that is **molten** (melted) or **dissolved in water**. The electrolyte is broken down by electricity enabling its **ions** to and hence carry a charge. **move freely**
Electrode	An **electrical conductor** that is placed in the **electrolyte** and connected to the **power supply**.
Cathode	The **negative electrode**. The electrode attached to the negative terminal of the power supply.
Anode	The **positive electrode**. The electrode attached to the positive terminal of the power supply.
Oxidation	Loss of electrons
Reduction	Gain of electrons



Positive
Anode
Negative
Is
Cathode

Section 2a: Changes at the electrodes – Pure ionic compounds

Electrolyte	Cathode	Anode
Molten Compound	Metal	Non-metal produced.
Molten lead bromide (diagram above)	**Lead metal** is produced $Pb^{2+} + 2e^- \rightarrow Pb$	**Bromine** is produced $2Br^- \rightarrow Br_2 + 2e^-$

Section 2b: Changes at the electrodes – Aqueous solutions

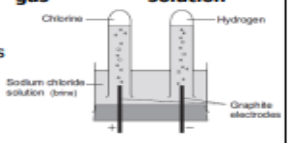
Electrolyte	Cathode	Anode
Dissolved compound (aqueous solution)	The **metal** if the metal is **less reactive than hydrogen**. **Hydrogen** is produced if the **metal is more reactive than hydrogen.**	**Oxygen** is produced **unless the solution contains halide ions** (chloride, bromide, iodide) when the **halogen** (chlorine, bromine, iodine) is produced.

Electrolyte	Cathode	Anode
$CuBr_{2(aq)}$	Copper	Bromine
$NaCl_{(aq)}$	Hydrogen	Chlorine
$KI_{(aq)}$	Hydrogen	Iodine
$Na_2SO_{4(aq)}$	Hydrogen	Oxygen

Electrolysis of Brine (concentrated sodium chloride solution)

In the electrolysis of brine, **three products** are formed, **hydrogen, chlorine** and **sodium hydroxide.**

Sodium chloride solution → hydrogen gas + chlorine gas + sodium hydroxide solution



At the **cathode hydrogen** gas forms
$2H^+ + 2e^- \rightarrow H_2$ **(reduction)**

At the **anode, chlorine** gas forms
$2Cl^- \rightarrow Cl_2 + 2e^-$ **(Oxidation)**

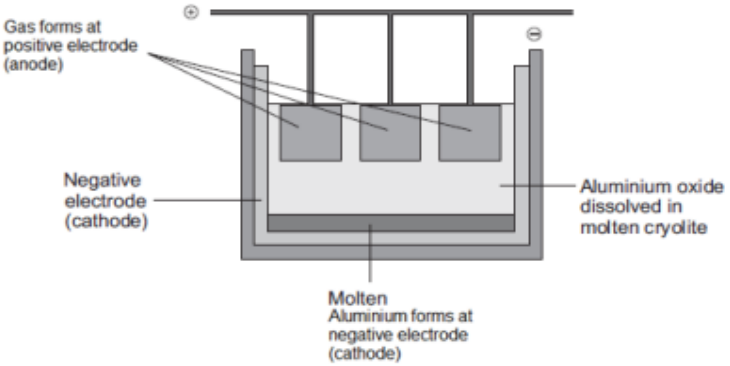
Sodium ions stay in solution (as sodium is more reactive than hydrogen) and **combine with hydroxide ions** to form sodium hydroxide.
$Na^+ + OH^- \rightarrow NaOH$

KNOWLEDGE ORGANISER

Chemistry Topic C4 Chemical Changes

Section 3a: The extraction of Aluminium by electrolysis

Bauxite	You get aluminium oxide from the ore called **Bauxite**, the ore is mined by **open cast mining**.
Cryolite	**Aluminium oxide** is **dissolved in cryolite** to **lower its melting point**. This **saves money on energy costs**.
Graphite	The **electrodes** are made from **graphite** (carbon) as graphite can conduct electricity (due to it having delocalised electrons between it's layers.)
Cathode	Positive Al^{3+} **ions move to the cathode.** Aluminium is produced (reduction). $Al^{3+} + 3e^- \rightarrow Al$
Anode	Negative O^{2-} **ions move to the anode.** Oxygen is made (oxidation). $2O^{2-} \rightarrow O_2 + 4e^-$ The anode **wears away** gradually as the **carbon graphite anode reacts with oxygen to form carbon dioxide.**



Section 3b: Uses of Aluminium

Aluminium is a very important metal, the uses of its metal or alloys include:

- Pans
- Overhead power cables
- Aeroplanes
- Cooking foil
- Drink cans
- Window and patio door frames
- Bicycle frames and car bodies

HOME LEARNING TASKS	
Task Description	**Done?**
Look, cover, write the definition of keywords used in topic	
Basic Recall: What is the difference between a strong acid and a weak acid? Provide an example of each.	
Application: Explain how you would carry out a titration to determine the concentration of an unknown acid solution using a standard solution of an alkali. **Comparison**: Compare the reactivity of metals with water and with dilute acids. Why do some metals react with one but not the other? **Analysis**: Predict the half-equations for the reactions at the anode and cathode during the electrolysis of sodium chloride solution. **Evaluation**: Why is the electrolysis of molten ionic compounds, such as aluminium oxide, used in industry despite its high energy cost? Discuss both advantages and disadvantages.	
Look at the various questions linked with the topics covered in the knowledge organiser and answer the conclusion questions for it.	

R.E. Year 9 Term 4 – Christian Practices

In this unit, you will explore key Christian practices, including prayer, worship, sacraments, festivals, and the role of the Church in the community. You will examine Christian mission, evangelism, and responses to persecution, as well as the Church's role in social justice and poverty relief. You will develop skills in explanation, evaluation, and comparison, assessing the significance of different practices across Christian denominations. Through analysing sources and key teachings, you will strengthen your ability to construct reasoned arguments and engage with ethical and theological debates, enhancing your understanding of Christianity's influence on individuals and society.

GCSE Pod – Scan Me!

Prior Learning Links

- Year 9 Term 1-3 Christian Beliefs and Practices

Future Learning Links

- Year 9 Term 5-6: Religion, Human Rights and Social Justice
- Year 10 Term 5-6: Themes on God and Revelation

KEY VOCABULARY

Religious Education – Christianity Key Vocabulary

1. **Authority** - The power or right to give orders, make decisions, or enforce rules.
2. **Community** - A group of people who share common interests, values, or beliefs and support one another.
3. **Ethical** - Relating to moral principles and the distinction between right and wrong.
4. **Guidance** - Advice or information that helps someone make decisions or understand something better.
5. **Impact** - The effect or influence that something has on a person, group, or society.
6. **Interpretation** - The way in which something is understood or explained.
7. **Obligation** - A duty or commitment that someone is required to fulfil.
8. **Persecution** - Harsh treatment of people, especially because of their beliefs or identity.
9. **Purpose** - The reason why something is done or exists.
10. **Significance** - The importance or meaning of something, often in a wider context.

Christianity Key Terms

1. **Adoration** – A form of prayer that expresses deep love and worship for God.
2. **Alpha Course** – A programme run by churches to introduce people to Christianity and explore faith.
3. **Atonement** – The belief that Jesus' death and resurrection restored the relationship between God and humanity.
4. **Baptism** – A Christian sacrament marking entry into the faith, symbolising purification and rebirth.
5. **Charity** – The Christian duty to help those in need, often through organisations like the Trussell Trust.
6. **Christmas** – The Christian festival celebrating the birth of Jesus Christ on 25th December.
7. **Church Growth** – The process by which Christianity expands through evangelism, mission, and social action.
8. **Conversion** – A spiritual transformation where a person adopts Christian beliefs and practices.
9. **Crucifixion** – The method of execution used on Jesus, central to Christian beliefs about sacrifice and salvation.
10. **Discipleship** – The practice of following Jesus' teachings and spreading Christian beliefs.
11. **Easter** – The Christian festival celebrating Jesus' resurrection from the dead.
12. **Ecumenism** – The movement promoting unity and cooperation between different Christian denominations.
13. **Evangelism** – The spreading of the Christian faith through preaching, teaching, and outreach.
14. **Food Banks** – Organisations like the Trussell Trust that provide food to people in need, supported by churches.
15. **Great Commission** – Jesus' instruction to his disciples to spread the Christian message worldwide.

16. **Holy Communion** – A Christian sacrament commemorating Jesus' Last Supper with bread and wine.
17. **Incarnation** – The Christian belief that Jesus was God in human form.
18. **Intercession** – A form of prayer asking God to help others.
19. **Lord's Prayer** – A key Christian prayer taught by Jesus as a model for prayer.
20. **Missionary** – A person sent to promote Christianity, often through charity work and evangelism.
21. **Persecution** – The mistreatment of Christians because of their faith, both historically and in modern times.
22. **Pilgrimage** – A religious journey, such as visiting Lourdes or Jerusalem, undertaken as an act of faith.
23. **Reconciliation** – The process of restoring peace and forgiveness, often encouraged by Christian teachings.
24. **Resurrection** – The belief that Jesus rose from the dead, a central Christian teaching celebrated at Easter.
25. **Street Pastors** – Christian volunteers who help vulnerable people in urban areas, offering support and care.

1. What is prayer and why is it important in Christianity?	**Red**	**Amber**	**Green**

Are you able to…

- Explain different types of prayer and their purposes?
- Describe how and when Christians pray?
- Analyse why prayer is significant in Christian worship and daily life?

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Core Knowledge:

- Prayer is a way of communicating with God, expressing worship, confession, thanks, and requests.
- Forms of prayer include adoration, confession, thanksgiving, and supplication (ACTS).
- The Lord's Prayer is a key model of Christian prayer.
- Some Christians use set prayers, while others prefer informal, spontaneous prayer.
- Prayer can take place individually or in a church setting, including meditation and intercession.

2. How do Christian festivals reflect key beliefs?	**Red**	**Amber**	**Green**

Are you able to…

- Describe the key events and traditions of Christmas and Easter?
- Explain how these festivals reflect Christian beliefs about Jesus?
- Evaluate why these festivals remain significant in modern Christianity?

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Core Knowledge:

- Christmas celebrates the birth of Jesus and the idea of incarnation.
- Easter commemorates the death (Good Friday) and resurrection (Easter Sunday) of Jesus.
- Many churches hold special services, including Midnight Mass and Easter Vigils.
- Traditions such as nativity plays, carols, and Easter eggs symbolise Christian teachings.
- Some Christians focus on the religious aspects, while others engage with cultural traditions.

3. What role does the church play in the local community?	**Red**	**Amber**	**Green**

Are you able to…

- Identify different ways churches help people in their communities?
- Explain how organisations like Street Pastors and food banks reflect Christian values?
- Assess the impact of the church on local communities?

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Core Knowledge:

- Many churches support their communities through charity work, education, and social events.
- The Trussell Trust operates food banks to help those in financial difficulty.
- Street Pastors offer practical support to people in need, especially in urban areas.
- The church provides spiritual guidance, support groups, and youth programmes.

- Helping the vulnerable reflects Christian teachings on love, kindness, and social justice.

4. Why do Christians engage in mission and evangelism?	Red	Amber	Green

Are you able to…

- Define mission and evangelism and explain their purpose?
- Describe different methods Christians use to spread their faith?
- Evaluate the importance of evangelism in modern Christianity?


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Core Knowledge:

- Mission involves spreading Christianity and helping others, both locally and globally.
- Evangelism is the active sharing of the Christian faith, through preaching and outreach.
- The Great Commission instructs Christians to spread Jesus' teachings.
- Some Christians focus on social action, while others prioritise direct evangelism.
- Evangelism remains controversial, especially in multi-faith societies.

5. How and why do Christians worship?	Red	Amber	Green

Are you able to…

- Identify different forms of Christian worship?
- Explain the significance of worship in Christian life?
- Compare how different denominations worship?


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Core Knowledge:

- Worship can be liturgical (structured), non-liturgical (informal), or private.
- Common forms include prayer, singing hymns, reading scripture, and Holy Communion.
- Catholic and Orthodox churches follow a formal liturgy, while Evangelicals prefer spontaneous worship.
- Worship allows Christians to express devotion, seek guidance, and strengthen faith.
- Personal worship includes prayer, Bible study, and meditation.

6. What are sacraments and why are they important?	Red	Amber	Green

Are you able to…

- Define the term 'sacrament' and name key Christian sacraments?
- Explain the meaning and significance of baptism and Holy Communion?
- Compare how different Christian denominations approach sacraments?


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Core Knowledge:

- Sacraments are sacred rituals that strengthen faith and symbolise God's grace.
- Baptism symbolises cleansing of sin and entry into the Christian faith.
- Holy Communion (Eucharist) commemorates Jesus' Last Supper.
- Catholic and Orthodox churches recognise seven sacraments, while Protestants vary.
- Some denominations, like Quakers, do not practise sacraments.

7. How do Christians respond to persecution?	Red	Amber	Green

Are you able to…

- Define religious persecution and describe historical and modern examples?
- Explain how Christians support those facing persecution?
- Evaluate how persecution has influenced Christian beliefs and actions?


flaticon.com – smashicons

Core Knowledge:

- Persecution includes discrimination, violence, and restrictions on worship.
- Early Christians faced persecution under the Roman Empire.
- Some Christians today experience persecution in parts of the world.
- Organisations like Open Doors support persecuted Christians.
- Many Christians respond with forgiveness, prayer, and activism.

8. What is Christian reconciliation and why is it important?	Red	Amber	Green

Are you able to…

- Define reconciliation and explain why it matters in Christianity?
- Give examples of reconciliation in religious and social contexts?
- Analyse how reconciliation promotes peace?


flaticon.com – smashicons

Core Knowledge:

- Reconciliation is the process of restoring broken relationships.
- It is based on Jesus' teachings about forgiveness and love.
- Examples include:
  - Joseph forgave his brothers for selling him into slavery (Genesis 45:15).
  - Jesus reconciled with Peter, after Peter denied knowing Him three times (John 21:15-17).
  - Jesus and Stephen both demonstrated forgiveness, even when the wrong was occurring. In the midst of their executions, both prayed for the forgiveness of those killing them (Luke 23:34; Acts 7:60).
- Reconciliation can happen between individuals, communities, or nations.

	• Many churches promote peace and conflict resolution.
9. How do pilgrimage and religious journeys shape Christian faith?	**Red Amber Green**
Are you able to… • Define pilgrimage and explain its significance? • Describe major Christian pilgrimage sites? • Assess the impact of pilgrimage on Christian beliefs and practices?	
 flaticon.com – smashicons	**Core Knowledge:** • Pilgrimage is a journey made for religious reasons. • Important sites include Lourdes, Rome, and Jerusalem. • Pilgrims seek healing, spiritual renewal, or a deeper connection with God. • Some see pilgrimage as symbolic, while others view it as transformative. • Pilgrimage can strengthen faith and community bonds.
10. How does the worldwide church respond to poverty?	**Red Amber Green**
Are you able to… • Explain why Christians believe they should help those in poverty? • Identify organisations that support the poor? • Evaluate the effectiveness of Christian responses to poverty?	
 flaticon.com – smashicons	**Core Knowledge:** • Many Christians believe in helping the poor as part of their faith. • Organisations like CAFOD, Christian Aid, and Tearfund provide aid. • Some focus on emergency relief, others on long-term development. • Biblical teachings encourage generosity and justice. • The church also challenges unjust systems that cause poverty.
11. How has Christianity influenced social justice movements?	**Red Amber Green**
Are you able to… • Explain how Christian teachings inspire social action? • Identify key Christian figures in social justice? • Assess the role of the church in promoting equality?	
 flaticon.com – smashicons	**Core Knowledge:** • Many Christians fight for human rights, equality, and justice. • Key figures include Martin Luther King Jr. and Desmond Tutu. • The church has played a role in abolitionism, civil rights, and anti-poverty campaigns. • Some churches actively campaign for change, while others focus on charity. • Christian teachings on love and justice shape activism.
12. How do Christian beliefs about salvation influence their lives?	**Red Amber Green**
Are you able to… • Define salvation and explain its importance? • Describe different Christian views on how salvation is achieved? • Analyse how beliefs about salvation influence Christian behaviour?	
 flaticon.com – smashicons	**Core Knowledge:** • Salvation means being saved from sin and eternal separation from God. • Some believe in salvation through faith alone (grace), others emphasise good works. • Jesus' death and resurrection are central to Christian salvation. • Sacraments like baptism and Holy Communion can be seen as pathways to salvation. • Belief in salvation influences moral choices, worship, and evangelism.

HOME LEARNING TASKS	
Task Description	**Done?**
Create a visual summary of Christian Prayer Using the vocabulary and core features from the Christian prayer section, create a mind map or infographic that summarises different types of prayer in Christianity (e.g. adoration, confession, thanksgiving, supplication). Include explanations and examples of each type.	
Write about a Christian festival Choose either Christmas or Easter, then research and write a 300-word essay on the significance of this festival in Christianity. Refer to the core features such as key events, rituals, and how the festival reflects Christian beliefs. Use the vocabulary to strengthen your explanations.	
Compare Two Christian Denominations' Role in the Community Using your knowledge of the role of the Church in the community, choose two different Christian denominations (e.g. Catholicism and Anglicanism). Research how each denomination supports its local community, focusing on organisations like Street Pastors and food banks. Write a comparison of how each contributes to social welfare and support.	

Knowledge Organiser

Art
Year 9
Term 4
2024/25

The Abbey School

Subject Art Year 9 Term 3 & 4 – ‘Drawing an and Painting’

Term Focus – ***Drawing and Painting Techniques and Processes-*** *Build on knowledge of colour theory learned in Year 7. Develop skills in more advanced painting techniques and media such as working with acrylics. Investigate how artists use colour and painting techniques to communicate mood and atmosphere in art. They will transfer this knowledge into their own paintings.*

Prior Learning Links

In the last project students revisited and built upon drawing and printmaking skills acquired in Year 8. Continuing to repeat and further embed processes of recording, developing, refining, evaluating and realising intentions.

Future Learning Links

Drawing and Sculpture Techniques and Processes- Broaden 3D skills learned in Key Stage 3, exploring more sophisticated methods of sculpture e.g. working on a large scale, use of Plaster of Paris and complex clay techniques. Investigate how artists use materials and techniques to communicate message and meaning through sculpture. Select and develop ideas suitable for sculpture.

KEY VOCABULARY	
KEY WORDS	**KEY SUBJECT TERMINOLOGY**
I will learn the meaning of... *Texture/Sgraffitto/Impasto/Complementary/ Contrast/Chiaroscuro/Composition etc. within the context of* ***drawing and painting.***	Record Develop Refine Realise Evaluate

1. How do artists use painting techniques and processes?	**Red**	**Amber**	**Green**

Develop ideas through investigations, demonstrating critical understanding of sources (AO1):

I will learn how to confidently record…

- images and information appropriate to a given theme
- examples of artists work
- using wet and dry media
- building on their knowledge and understanding of how artists use paint to create meaningful work

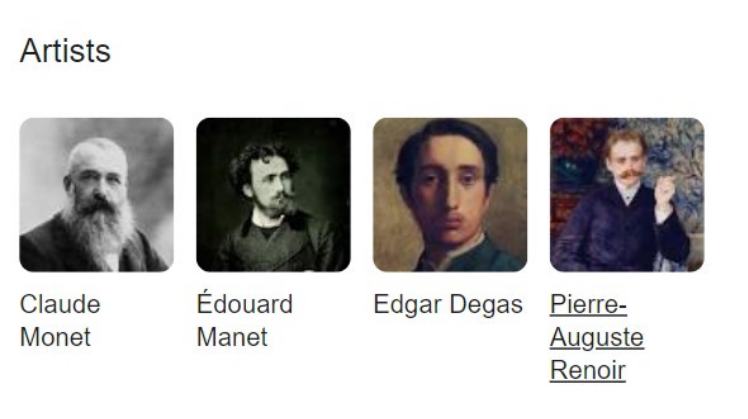
Record ideas, observations and insights relevant to intentions as their work progresses (AO3):

I will learn how to confidently evaluate…

- artists using analytical writing skills and forming opinions

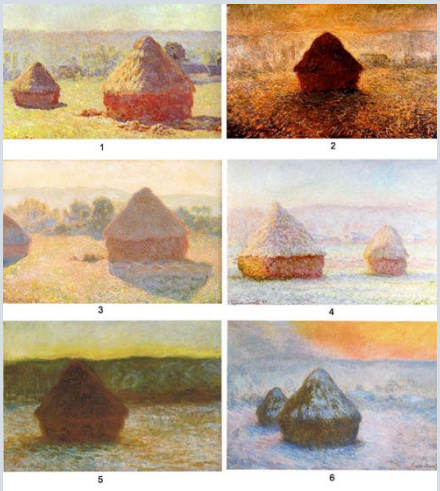
Introducing the Impressionists

Impressionism developed in France in the nineteenth century and is based on the practice of painting out of doors and spontaneously 'on the spot' rather than in a studio from sketches. Main impressionist subjects were landscapes and scenes of everyday life. There were many Impressionist Artists but below are the most famous…



The Impressionists we will be investigating include Claude Monet and Pierre- Auguste Renoir

Oscar-Claude Monet (14 November 1840 – 5 December 1926) was a French painter, a founder of French Impressionist painting and the most prolific practitioner of the movement's philosophy of expressing one's perceptions before nature, especially as applied to landscape painting. Monet's ambition of documenting the French countryside led him to adopt a method of painting the same scene many times in order to capture the changing of light and the passing of the seasons.



Understanding Monet's Haystacks

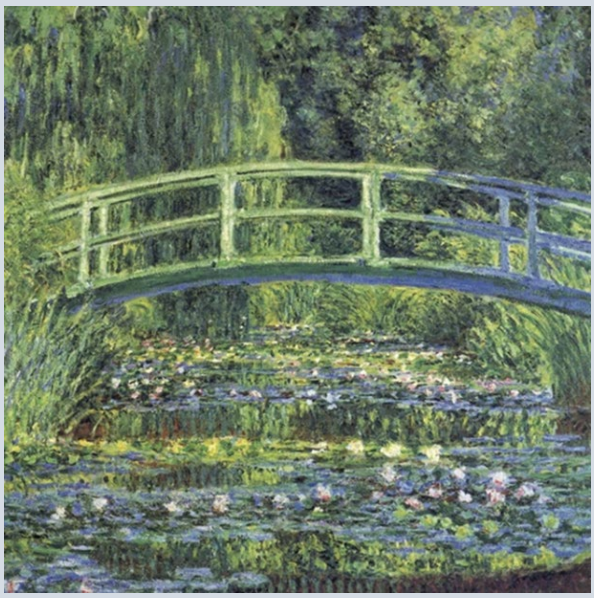
Between 1890 and 1891 Monet devoted some thirty paintings to the haystacks in a field near his house at Giverny. In the midst of this effort, he wrote to the critic Gustave Geoffroy: **"I am working very hard, struggling with a series of different effects (haystacks), but at this season the sun sets so fast I cannot follow it. . . . The more I continue, the more I see that a great deal of work is necessary in order to succeed in rendering what I seek.**

" Haystacks was the first group of paintings that Monet exhibited as a series; in 1891, fifteen were shown at the Galerie Durand-Ruel in Paris.

Haystacks (Effect of Snow and Sun), Claude Monet (French, Paris 1840–1926 Giverny), Oil on canvas

Understanding Monet's Water Lilies

Water Lilies is a series of approximately 250 oil paintings by French Impressionist Claude Monet (1840-1926). The paintings show his flower garden at his home in Giverny, and were the main focus of his artistic productions during the last thirty years if his life. Many of the works were painted while Monet suffered from cataracts.



Pierre-Auguste Renoir (25 February 1841 – 3 December 1919) was a French artist who was a leading painter in the development of the Impressionist style.

Famous Renoir Paintings we will explore…

Dance at the Moulin De La Galette

Luncheon of the Boating Party

Dance in Bougival

The Umbrellas

2. What is special about the primary colours? | Red | Amber | Green

Develop ideas through investigations, demonstrating critical understanding of sources (AO1)

I will learn how to confidently develop…

- and advance their knowledge of colour theory
- my higher order thinking skills

Record ideas, observations and insights relevant to intentions as their work progresses (AO3)

I will learn how to confidently record…

- using wet and dry media

Primary colours can be mixed together to make the secondary and tertiary colours. The primary colours are red, yellow and blue. They cannot be made by mixing other colours together. The primary colours sit equal distances apart on the colour wheel.

3. How do you make a tertiary colour? Red Amber Green

Develop ideas through investigations, demonstrating critical understanding of sources (AO1)

I will learn how to confidently develop…

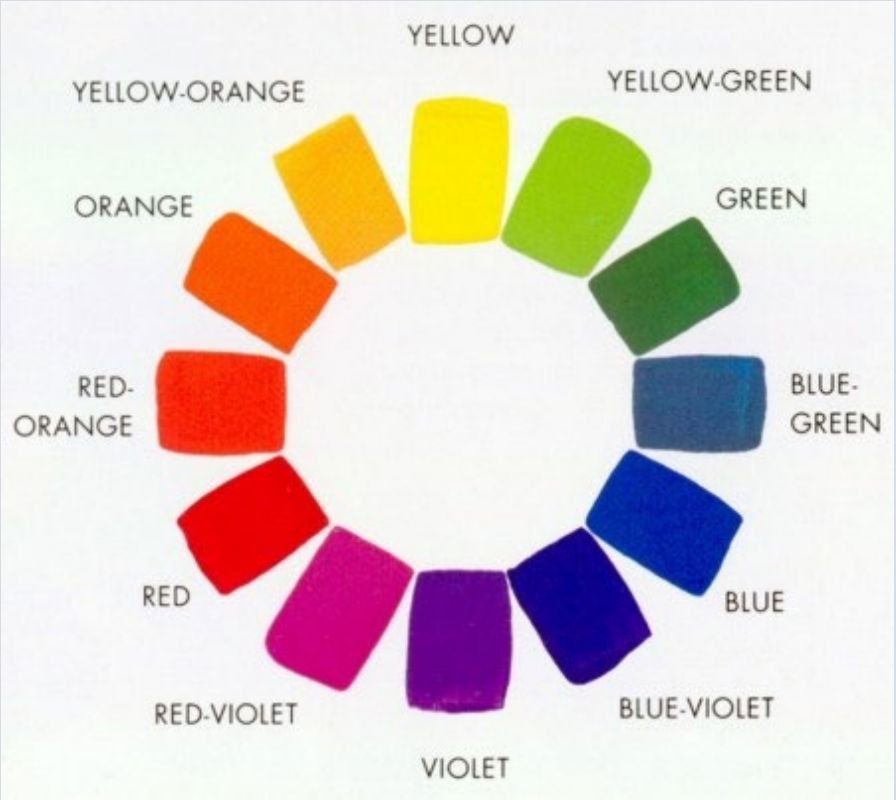
- and advance their knowledge of colour theory
- my higher order thinking skills

Record ideas, observations and insights relevant to intentions as their work progresses (AO3)

I will learn how to confidently record…

- using wet and dry media

Tertiary colours are a combination of a secondary colour and a primary colour next to it. They include yellow-orange, red-orange, red-purple, blue-purple, blue-green and yellow-green.



4. Where do the complementary colours sit on the colour wheel and how do they relate?	**Red**	**Amber**	**Green**

Develop ideas through investigations, demonstrating critical understanding of sources (AO1)

I will learn how to confidently develop…

- and advance their knowledge of colour theory
- my higher order thinking skills

Record ideas, observations and insights relevant to intentions as their work progresses (AO3)

I will learn how to confidently record…

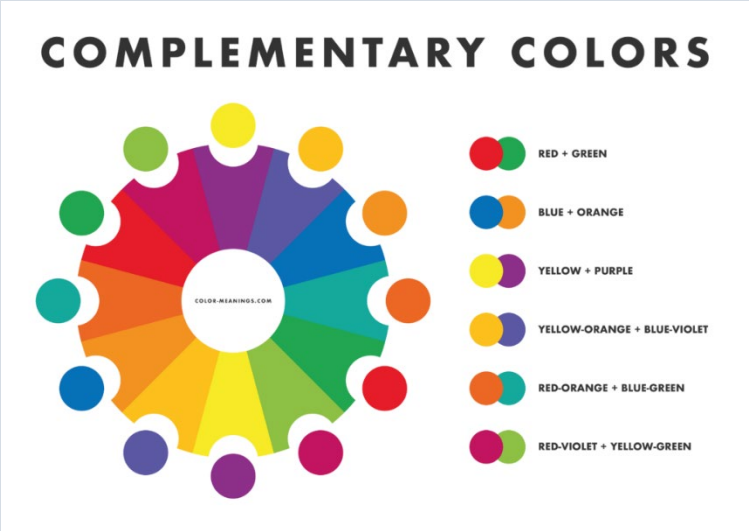
- using wet and dry media

Complementary colours are pairs of colours which, when combined or mixed, cancel each other out.

When placed next to each other, they create the strongest contrast for those two colours.

Complementary colours may also be called "opposite colours".

They are so called, because they sit opposite one another on the colour wheel.



5. How can warm and cool colours be used to create depth in paintings?	Red	Amber	Green

Develop ideas through investigations, demonstrating critical understanding of sources (AO1)

I will learn how to confidently develop…

- and advance their knowledge of colour theory
- my higher order thinking skills

Record ideas, observations and insights relevant to intentions as their work progresses (AO3)

I will learn how to confidently record…

- using wet and dry media

André Derain uses the clash between contrasting warm and cool colours to express the noise and activity of this busy dockyard. He creates the illusion of depth in the painting by using warmer colours in the foreground which gradually become cooler towards the background. This organized arrangement of colours in a landscape is called Aerial Perspective.

6. Can you demonstrate how a wide range of neutral colours can created from the primaries?	Red	Amber	Green

Develop ideas through investigations, demonstrating critical understanding of sources (AO1)

I will learn how to confidently develop…

- and advance their knowledge of colour theory
- my higher order thinking skills

Record ideas, observations and insights relevant to intentions as their work progresses (AO3)

I will learn how to confidently record…

- using wet and dry media

This is what happens when you start mixing opposite colours together in different ratios…

These colours/Hues are referred to as NEUTRALS or GREYS and be useful I adding tone and depth without the need for black.

7. Can you list 5 different painting techniques? | Red | Amber | Green

Develop ideas through investigations, demonstrating critical understanding of sources (AO1)

I will learn how to confidently develop…

- and advance their knowledge of colour theory
- my higher order thinking skills

Refine work by exploring ideas, selecting and experimenting with media, materials, techniques and processes (AO2)

I will learn how to confidently refine…

- through exploring a range of painting techniques e.g. watercolour- wet into wet, wet on dry, scumbling, dry brush etc. acrylics- layering, blending etc.

Record ideas, observations and insights relevant to intentions as their work progresses (AO3)

I will learn how to confidently record…

- using wet and dry media

Watercolour Techniques

Wet on dry paint, Wet into Wet, Splatter, Wet on Wet, Wet on dry paper, Wax Resist, Cling Film, Salt

Acrylic Techniques

Blending, Layering, Scumbling, Scraffitto, Impasto, visible brush strokes, palette knife

8. Can you apply a specialist painting techniques to your own artwork?	Red	Amber	Green

Artwork inspired by Monet's Water Lilies

Develop ideas through investigations, demonstrating critical understanding of sources (AO1)

I will learn how to confidently develop…

- images and information appropriate to a given theme
- using wet and dry media
- ideas for a painting

Refine work by exploring ideas, selecting and experimenting with media, materials, techniques and processes (AO2)

I will learn how to confidently refine…

- through exploring a range of painting techniques e.g. watercolour- wet into wet, wet on dry, scumbling, dry brush etc. acrylics- layering, blending etc.
- by selecting ideas to adapt and improve e.g. adjustments to size, colour and composition.
- by developing a piece of work from one media into another

Record ideas, observations and insights relevant to intentions as their work progresses (AO3)

I will learn how to confidently record…

- images ad information appropriate to a given theme
- examples of artists work
- using wet and dry media
- ideas for a painting

Artwork inspired by Renoir

I will learn to confidently evaluate…

- reflecting on the development of my own work
- making connections between my own and artists' work
- suggesting ways I could improve

Present a personal and meaningful response that realises intentions and demonstrates understanding of visual language (AO4)

I will learn how to confidently realising intentions…

- using painting techniques and processes

EVALUATING ARTISTS' WORK

1. Describe the piece of art you are looking at
2. What is the name of the artist or type of art?
3. What art movement or culture does the art link to?
4. Research and list 5 or more things about the artist or culture?
5. What important things have happened in the country that the art comes from?
6. What has influenced the art E.g. other artists, people, personal experiences, society, culture, politics, gender, colour, pattern, movement, religion, travel, places, objects etc.
7. Describe the materials used to make the art
8. How has the art been produced?
9. What is being communicated through the art?
10. Which of these words best describes the mood of the picture? EMOTIONAL/POWERFUL/BUSY/SLOW/PEACEFUL/WARM/COLD/HAPPY/SAD/CALM/ INTENSE/SCARY can you think of any other words?
11. What do you like or dislike about the picture? Explain your reasons…

Think!

See?

Know?

Think?

ANNOTATING YOUR OWN WORK

- In this artwork I was trying to…
- The artist/culture that has influenced my work is…
- The source I have used is…
- I found the source I used at…
- In this artwork I used the technique of...
- The media I have used is...
- I like/dislike this piece because...
- My idea links to the theme because…
- I can improve this piece by…
- I could develop this work further by...

Think!

What?

How?

Why?

END OF PROJECT EVALUATION

1. Describe each stage of the project from start to finish
2. What media did you use to produce your work? E.g. Paint/Pencil/Clay etc.
3. Describe how you used different techniques in your project? E.g. painting/drawing/modelling with clay etc.
4. Which artist's culture have you looked at?
5. Write down 2 or more similarities between your work and the artist's work.
6. Which piece of your work best shows the Artist's style or the influence of another culture and why?
7. Describe some of your own ideas…
8. Have you used a primary or a secondary source?
9. Have you included the secondary source in your work? Where did you find it?
10. Imagine your final piece was displayed in a public place.... Describe the effect looking at your work might have on people and society. E.g. relax them, make them feel sad, curious, happy, angry, thoughtful, surprised, confused, nostalgic etc. explain why e.g. because of your use of colour, images, content, arrangement? etc.
11. Explain any other influences on your work e.g. personalities *(including your own)*, places, memories, objects, politics, events, activities, religion, fact, fiction etc.
12. Describe how your work links to the project theme?
13. Explain what you have done well…
14. Explain how you could improve…
15. What would you do differently, if you were to repeat any part of this project?

Task Description	Done?
Homework- tasks linked to 'Drawing and Painting' (2 hours per cycle)	
<u>How do artists use painting techniques and processes?</u> • Use the writing help questions (yellow section) to write an artist evaluation for Monet's Hay Stacks 	

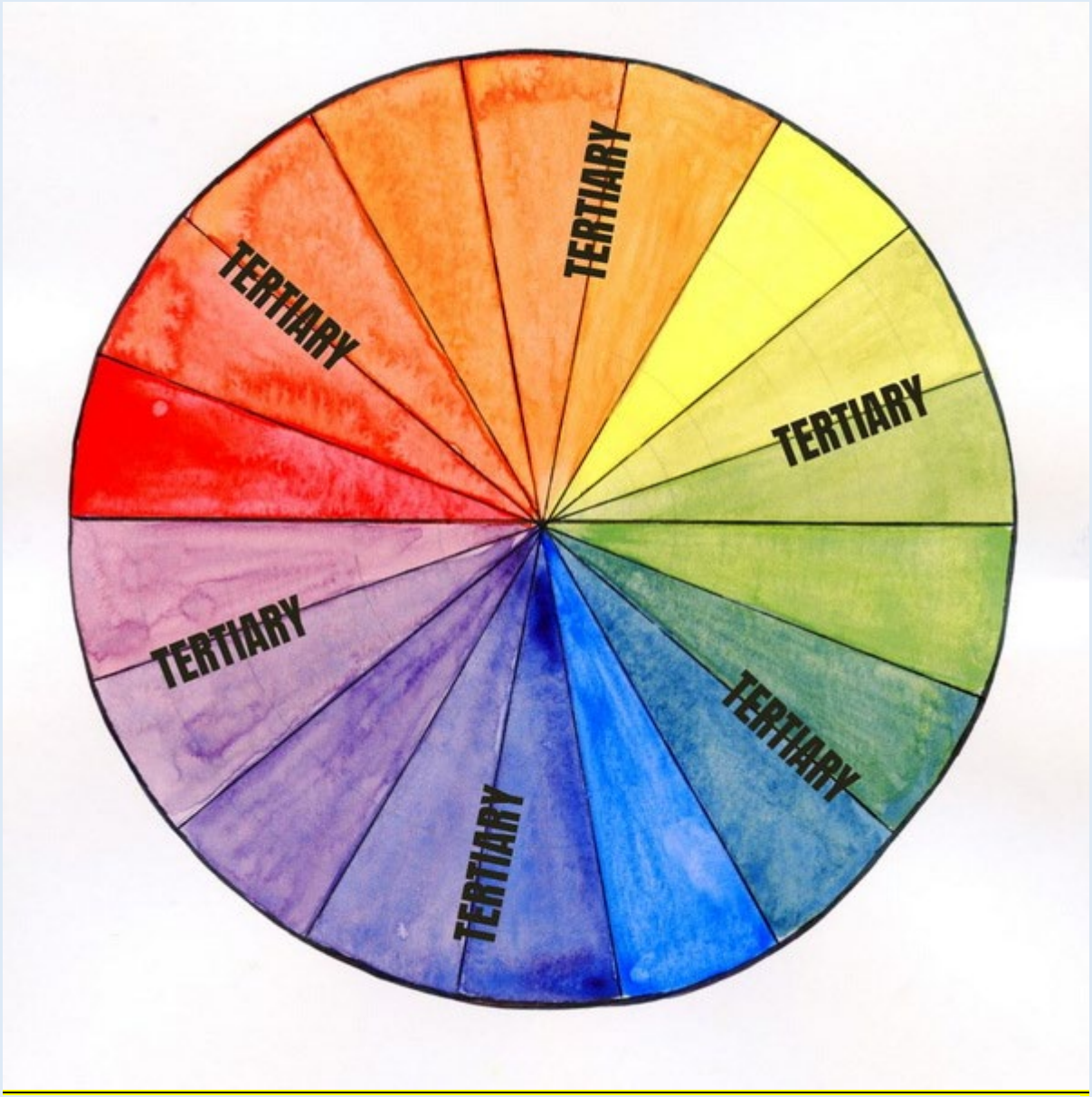
- Do the same for Renoir's Dance in Bougival

What is special about the primary colours?

Demonstrate your understanding of Primary and secondary colours by drawing a creative colour wheel…

How do you make a tertiary colour?

Label the tertiary colours…



Where do the complementary colours sit on the colour wheel and how do they relate?

Label the remaining complementary colour pairs…

- List the complementary colours in the fruit bowl
- Draw and colour the fruit bowl

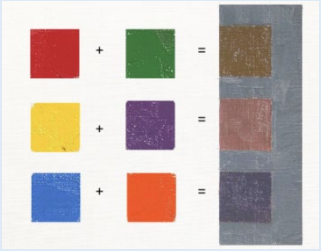
How can warm and cool colours be used to create depth in paintings?

Explore your own version of cool and warm hand…

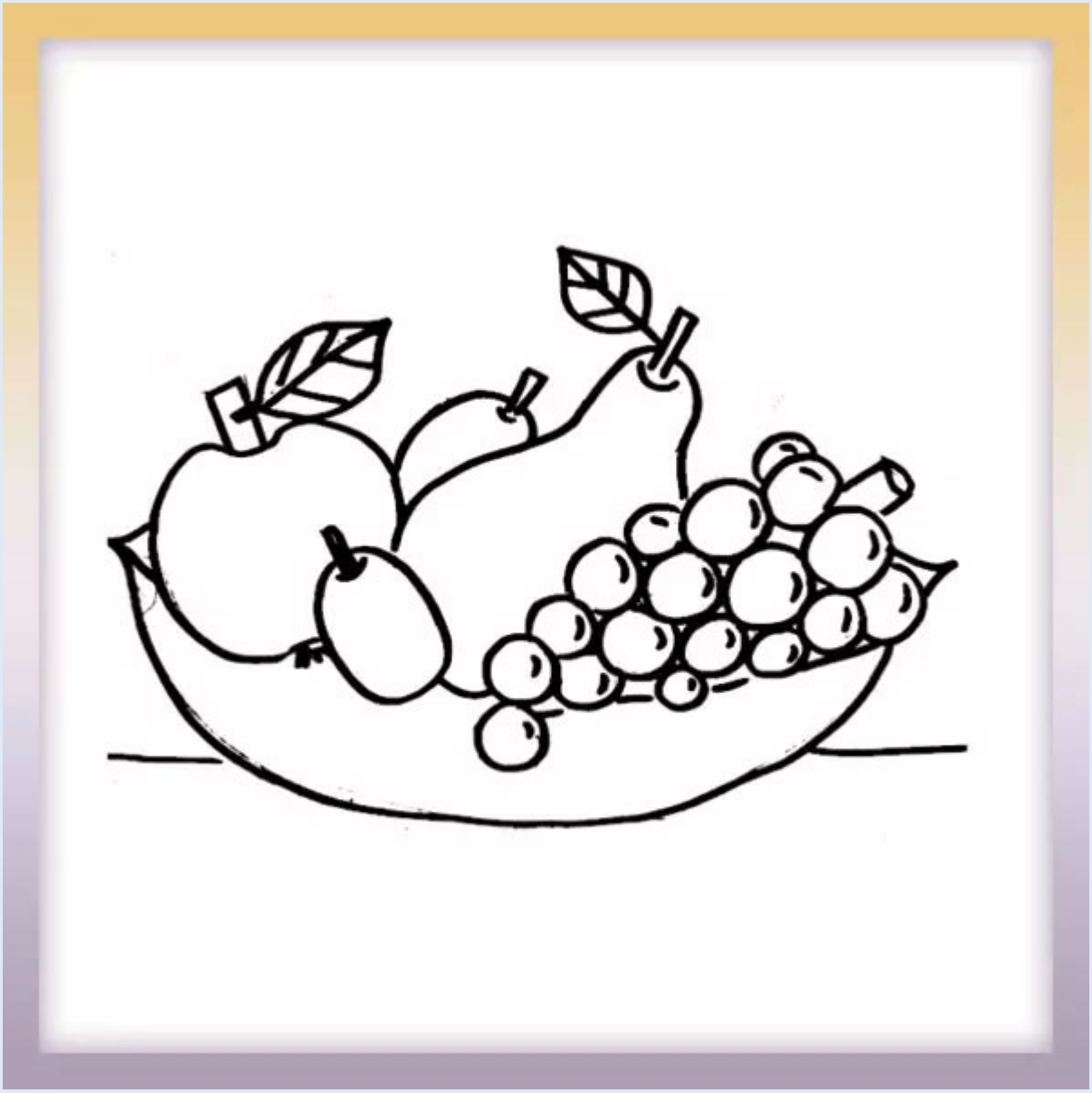
Can you demonstrate how a wide range of neutral colours can created from the primaries?

Explore mixing opposite colours in different ratios-

- Mix Red + Green in different ratios
- Mix Yellow and Green in different ratios
- Mix Blue +Orange in different ratios



Paint the bowl of fruit using neutrals to add tone…



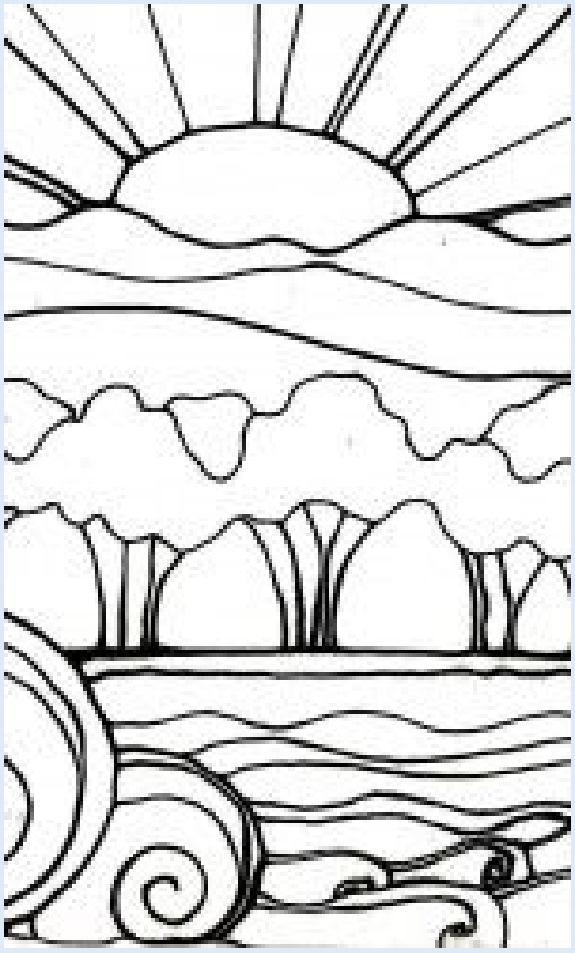
Can you list 5 different painting techniques?

- List 5 different watercolour painting techniques
- List 5 different acrylic painting techniques

Try out some of the techniques in the circles below…

Can you apply a specialist painting techniques to your own artwork?

Sketch the picture below and fill each section using a different painting technique…



Knowledge Organiser

Hospitality & Catering
Year 9
Term 4
2024/25

The Abbey School

Subject Hospitality and Catering - Year 9 Term 4
Theme – Hospitality & Catering Provisions

Term Focus – Introducing

Prior Learning Links

KS4 – introduction to the course of WJEC Hospitality & Catering in Term 3.
Understanding the importance of nutrition
Looking at food related illnesses
The difference between intolerance and allergy
Food regulations

Future Learning Links

Looking at how the Food Regulations and the Laws pertaining to food production and consumption are implemented in the food industry.

KEY VOCABULARY

KEY WORDS

Mis en place Litres –l- Millilitres -ml Kilogrammes - kg Grammes - g Teaspoon - tsp Tablesooon - tbsp Cup (USA) Centrimetre - cm Centigrade danger zone	Skills: *Boiling* *Frying* *Grilling* *Poaching* *Roasting* *Steaming* *Baking* *Stir-frying*

KEY SUBJECT TERMINOLOGY

Provisions
Requirements
Front of house
Back of house
Contracts
Rules and Regulations
Environmental Health Officer
dish production
dish selection
health and safety
hygiene
improvements
organoleptic
presentation
waste.

1. How do you calculate the cost of a recipe?

Why is it important to know the cost of a recipe?
How can you budget for ingredients?
Thinking about the cost of living, how much money you have available.
Using cooking techniques that reduce the cost of the product, but also provide nutritious food.

2. What are provisions?

Red **Amber** **Green**

A **provision** can be a number of places but they all **provide** food and hospitality to varying degrees. We look at what these might be and how they are judged.

3. How do we grade/select a provision? Red Amber Green

- Star ratings
- Michelin Star
- AA Rosettes

AA Rosette Award for Culinary Excellence

4. What is the front of house and who would we find there? Red Amber Green

The front of house staff

Manager
Receptionist
Concierge
Chef
Waiter
Wine waiter/bar man
Etc …..

5. Who would be find in the back of house? Red Amber Green

The back of house staff
Chef and kitchen staff
Housekeeping staff
Etc ….

6. Who chooses which provision? Red Amber Green

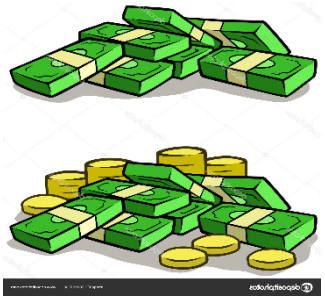
When we are looking at how the hospitality & catering industry meets the needs of specific staff, we need to understand that there are many different factors that influence this.

- **Customer requirements and lifestyle needs**
- **Nutritional needs, dietary needs**

- **Time available**
- **Customer expectations, value for money**
- **Social media influence and other media**
- **Environmental or season concerns.**
- **Location**
- **Client demographic**

7. What are contracts?	**Red**	**Amber**	**Green**

- Permanent
- Long Term
- Short Term
- Zero Hours
- Temporary



HOME LEARNING TASKS

Task Description	**Done?**
Think about the foods that you would provide for a children's party. List them and explain how you would present them to make them attractive to younger children. Draw the table with the food on it. Label as appropriate.	
Design a variation of a sponge cake, consider the decoration that you might have on the top. How would this change with the seasons? Eg Spring, Summer, Autumn and Winter.	
Consider the different accompaniments you might have with a) a piece of fish, b) a portion of lasagne and c) a steak.	
Thinking about different sauces, consider what you might serve with a piece of fish. Write down 3 different sauces that you could serve with the fish.	
Design a cake for a children's party. You should identify a theme and an age for the child and ensure that the cake was appropriate. Draw it and label carefully.	

Knowledge Organiser

Child Development
Year 9

Term 4
2024/25

The Abbey School

Child Development Year 9 Term 4

Term Focus – Physical factors that affect growth and development-prenatal, health, diet, exercise

Prior Learning Links	Future Learning Links
Investigating Growth and development between 0-5 years for the 5 areas of development	Environmental factors that affect growth and development-housing and -the home

IMAGE
(please check copyright)

KEY VOCABULARY

Nuclear family – traditional family, two parents and their children
Extended family – nuclear family plus other relatives living together
Reconstituted family – also known as a step family
Foetus – means offspring and is what a human baby in the womb is called after 8 weeks
Placenta – a circular organ in the uterus of a pregnant woman that nourishes and maintains the foetus through the umbilical cord
Congenital – a condition a child is born with

1. Why do we need to explore the different factors that affect growth and development?	Red	Amber	Green

How well a child will grow and develop begins before they are born. Some health factors begin during pregnancy and some life choices made by the mother can harm an unborn child.
Factors that impact on growth and development include:
Physical factors – genetics, what a child eats
Environmental factors – where a child lives
Socio-economic factors – social group, relationships and education

2. What are the Physical factors that affect growth and development – prenatal?	Red	Amber	Green

Prenatal factors that can impact on growth and development include:
Maternal exercise and nutrition
Effects of parental drug or substance abuse
Premature birth

3. What are the Physical factors that affect growth and development – disabilities and health status?	Red	Amber	Green

Disabilities and health factors that can impact growth and development include:
Disabilities and additional needs- these may be present from birth e.g. Down's syndrome, cerebral palsy
Health status – includes chronic conditions e.g. eczema, asthma and short term illness – colds, ear infections, vomiting and diarrhoea

4. What are the Physical factors that affect growth and development- diet and exercise	Red	Amber	Green

Diet and exercise factors that can impact growth and development include:
A health, balanced diet – contains food from the main foods groups; carbohydrates, proteins, vitamins and minerals, fats and under 5 years should be active for at least three hours a day. Any activity that involves children moving their bodies is exercise. Exercise helps to maintain a healthy weight. Being overweight can affect self-esteem and confidence.

4. What are the Environmental factors that affect growth and development – housing?	Red	Amber	Green

Housing can impact on children's growth and development :
Unsuitable/temporary housing –distressing to child and family
Area of deprivation – poor quality housing, overcrowding, high crime rates
These can lead to:

Disrupted sleep Accidents due to lack of space Parental stress Lack of friendships due to frequent moves Nowhere to exercise and practice physical skills if no outdoor space Lack of learning – no quiet space			
6. Revision lesson	Red	Amber	Green
Prepare for mid term assessment			
7. Assessment lesson	**Red**	**Amber**	**Green**
Carry out assessment			
8. PIT lesson	**Red**	**Amber**	**Green**
Look back at everything we have learned this term. Have you missed any lessons that you need to catch up on? Look at your EBI and complete the task			
9. What are environmental factors that affect growth and development – the home	**Red**	**Amber**	**Green**
Children's experiences in the home help to shape their behaviour and emotions. Positives include: Stability – know what to expect and needs are met Contact with extended family – support, enjoy spending time with grandparents and others, child care Negatives include: Parental conflict – leads to children being anxious and fearful, poor attachments, learned behaviour Parent's mental health – post natal depression may lead to poor attachment. Child may be neglected as parent is exhausted and unable to cope.			
10. What are environmental factors that affect growth and development – drugs, alcohol and smoking	**Red**	**Amber**	**Green**
Parental use of alcohol, drugs and smoking can impact a child's growth and development. Drugs and Alcohol: Impaired judgement – parents not supervising/caring for children to ensure their safety More frequent accidents – parent may fall and injure themselves putting the child at risk Poor parental physical and mental health – child neglected, poor attachments Erratic and dangerous behaviour of adults - children anxious and frightened If drugs and alcohol are left lying around child may consume them and this can be fatal. Smoking- If children breath in smoke, this can lead to: Respiratory difficulties Ear/eye infections Worsening asthma Some cancers			
	Red	**Amber**	**Green**
	Red	**Amber**	**Green**

HOME LEARNING TASKS	
Task Description	**Done?**
Choose a health condition to focus on and design a poster that alerts others about the impact on children's growth and development	
Revision	

Knowledge Organiser

Drama
Year 9
Term 4
2024/25

The Abbey School

Drama Year 9 Term 4
An introduction to Practitioners

Term Focus

You will learn how to:

- Develop your understanding of practitioners and genres of theatre.
- Perform from a script and devise whilst collaborating with others developing your teamwork, communication and problem-solving skills.
- Evaluate your own work in addition to the work of your peers.

Prior Learning Links

- Consolidates previously learned information and skills which underpin the curriculum. The level of experience in this subject will differ. This unit will allow all pupils to further develop a foundation knowledge of skills and techniques.

Future Learning Links

- Performance skills will continue to develop across KS4. They are the foundation skills required for any performance.
- Pupils' command of vocabulary is the key to their learning and progress across the whole curriculum.
- Promotes confidence and resilience across the wider school.

KEY VOCABULARY

- **Theatre in education (TiE) -** often has a very clear moral or social message for young people, who are its target audience.
- **Physical theatre -** Physical theatre emphasises the use of physical movement for expression.
- **Epic theatre** - Epic theatre often features a non-linear plot and includes Brechtian techniques.
- **Political theatre -** can be used to present a campaign or show an injustice to an audience in the hope of making changes.
- **Expressionism -** a style of painting, music, or drama in which the artist or writer seeks to express emotion or inner feelings rather than external reality.
- **Total theatre** - telling the story without a set, eg through the performers' use of their bodies.
- **Abstract Theatre –** a genre of theatre focussed on creating heavily symbolic characters and plots instead of a complete story
- **Naturalism** – A genre of theatre used to represent reality as closely as possible

1. What transferrable skills will you develop in Drama? Red Amber Green

Drama is a subject that allows you to develop key skills that you can use in all areas of your life. These skills are what employers look for when you are applying for a job. You may not be someone who would like to be an Actor but all the skills you will develop in your lessons are important life skills for the future.

Teamwork	Each lesson you will work in groups to complete a performance task. You will need to work with your peers. You will need to contribute ideas as well as listen to others to create a performance to perform to the class.
Creativity	You will be required to think of imaginative ideas to create a performance which is exciting for the audience.

Problem Solving	When given a challenging task, you will need to work with your peers to overcome any issues you face. You will also need to navigate working with a range of different people with a variety of skillsets. You will need to problem solve in order to get the task completed.
Leadership	Leadership skills will be developed when devising your own performances. Being able to take lots of ideas and find a way to move forwards with the task will encourage you to take charge.
Confidence	Confidence will be developed in a variety of ways. You will be expected to contribute ideas in class discussions, group work and when evaluating each others work. You will be expected to perform to your peers every lesson in addition to working with a variety of different people. Confidence is a key skills which will be developed.
Resilience	You will be challenged outside of your comfort zone but being able to continue to push yourself every lesson will result in your resilience developing. Performing to an audience, working with others and speaking
Communication	You will be expected to be able to communicate politely with one another in group work and class discussions.

1. Key Practitioners

Red Amber Green

- **Antonin Artaud French Theatre Practitioner who introduced Theatre of Cruelty**
- **Bertolt Brecht German Theatre Practitioner who introduced Non-Naturalism, and used Expressionism**
- **Frantic Assembly British Theatre Practitioner & Company who incorporated Physical Theatre into text based works**
- **Jerzy Grotowski Polish Theatre Practitioner who introduced Poor Theatre, and used Expressionism**
- **Constantin Stanislavski Russian Theatre Practitioner who introduced Naturalism**

2. Theatrical styles

Red Amber Green

- **Naturalism - Conceived by Stanislavski, as a style of theatre which explored the 'real' nature of its characters**
- **Non Naturalism - Conceived by Brecht but influenced by Shakespearean & Greek theatre, which told stories, by 'distancing' the audience so that they could reflect upon the action**
- **Physical Theatre A very physical method of exploring narrative, characters and meaning. Often uses visual metaphors**
- **Poor Theatre Developed by Grotowski as an actor-training method which explored the limitless potential of the actor's use of body, voice and movement without the distraction of set, costume & technology**
- **Theatre of Cruelty Introduced by Artaud, building on the idea of Expressionism's abstract inner-emotions of art and exploring the horrors of the human condition and the importance of catharsis**

3. Key command words

Red Amber Green

- **Evaluate: To explore how effective an artistic decision was and its 8 impact on the audience**
- **Analyse: To identify the importance of an artistic decision & how it contributed to the narrative &/or character(s)**
- **Describe: To give specific examples of how body, voice, movement & space were used**

Knowledge Organiser

French
Year 9
Term 4
2024/25

The Abbey School

French Year 9 Term 4 – My town

Term Focus – This term introduces you to talking about a trip to Paris. You will be able to:

- Talk about Paris, the capital of France
- Give your opinion about Paris
- Talk about your future trip to Paris
- Talk about shopping and your preferences
- Say which issues with clothes one can face in shopping

Prior Learning Links

- Where I live (Year 7)
- Conditional tense (Year 8 T1 Year 9)
- Giving opinions (Year 7, 8 & T1 Year 9)
- Past tense (Year 7, 8 & T1 Year 9)
- Comparatives (Year 8)

Future Learning Links

- Family and friends
- Holidays topic
- Giving complex opinions
- Using present and past tense together
- Conditional tense

Image: Flaticon.com

1. What can I visite in Paris?

Red | Amber | Green

C'est comment Paris? (What is Paris like?)

Paris est une ville historique et culturelle.

À Paris (In Paris)	**il y a** (there is/there are)	**un très grand château** (a very big castle) **une petite rue** (a small street) **un espace public** (a public space)	**un parc agréable** (a nice park) **un arbre** (a tree) **un quartier propre** (a clean neighbourhood) **un grand magasin** (a big shop)	**un paysage spectaculaire** (a spectacular landscape) **une belle vue** (a pretty view) **un monument célèbre** (a famous monument)	**au centre** (in the centre) **près du centre** (close to the centre)
		quelques châteaux (some castles) **de nombreuses rues** (numerous streets) **beaucoup d'espace** (lots of spaces)	**plusieurs parcs** (several parks) **beaucoup d'arbres** (lots of trees) **de nombreux quartiers** (numerous neighbourhoods)	**quelques musées** (some museums) **de nombreux bibliothèques** (numerous libraries) **de nombreux magasins** (numerous shops)	

2. Do we put quantifiers in front of a noun?

Red | Amber | Green

- **Quantifiers** are used to give information about quantity and can modify nouns.
- Examples of common quantifiers include **'beaucoup de'** (a lot of), **'assez de'** (enough), **'peu de'** (little), **'trop de'** (too much), **'quelques'** (a few), and **'plusieurs'** (several), **'de nombreux/de nomreuses'** (many/numerous).

3. Qu'est-ce que tu vas faire à Paris? (What are you going to do in Paris?) Red Amber Green

Qu'est-ce que tu vas faire à Paris? (What are you going to do in Paris.)				
Je vais (I am going) **On va** (we are going)	**voir tous les monuments** (to see all the monuments) **faire un tour en bateau** (to go on a boat tour) **voir quelques spectacles** (to watch some shows)	**faire un tour de la capitale** (to go on a city tour) **visiter le musée du Louvre** (to visit the Louvre museum) **faire le voyage** (to go on a trip)	**avec** (with)	**mes parents.** (my parents) **tous mes amis.** (my friends **toute ma famille.** (my whole family)

4. When do you use near future ? Red Amber Green

- The **near future** tense, or le future proche, is used to express an action that will happen very shortly in the future.
- The **near future** tense is formed with the verb **aller** followed by an infinitive.

aller + **infinitive**			
Je vais	+ voyager à Paris	Nous allons	+ voyager à Paris.
Tu vas		Vous allez	
Il/elle/on va		Ils/elles vont	

5. What is a demonstrative adjective? Red Amber Green

Demonstrative adjectives are used to indicate a particular thing: 'this'…,'that…over there'.
In English, you use '**this**'/'**these**' and '**that**'/**those**' to distinguish between things that are near you (here) and away from you (there).
French has two categories:

- near you
- away from you or near the person you are talking to

SINGULAR			PLURAL		
	masculine	feminine		masculine	feminine
this/that	**ce/cet***	**cette**	these/those	**ces**	**ces**

* **Cet** in French is used for masculine (**cet été** (this summer)), singular nouns which start with a vowel or silent 'h'.

6. Am I able to use indefinite adjectives? Red Amber Green

- **Indefinite adjectives** talk about people or things in a general way, without being specific:
  chaque (each, every)
  tout/toute/tous/toutes
  (all, the whole, every)
- They need to agree with the noun in number and gender, just like all adjectives.

Masculine singular	**Tout le temps** (all the time)	Chaque **jour** (every day)
Feminine singular	**Toute ma famille** (my whole family)	Chaque **année** (each year)
Masculine plural	**Tous mes amis** (all my friends)	
Feminine plural	**Toutes les les filles** (all the girls)	

7. What WOW phrases can I use to introduce my opinions? Red Amber Green

Your opinion			
Il est possible de… (It is possible to…)	**Malheureusement, ils/elles sont …** (Unfortunately, they are…)	**J'ai trouvé ça…** (I found it…)	**Ça va être genial!** It will be great!

8. What do you buy in a shop?

Red | Amber | Green

¿Qu'est-ce que tu achètes? (What do you buy?)			
J'achète (I buy)	**ce pantalon gris et vert** (these grey and green trousers) **cette cravate jaune** (this yellow tie) **cette jupe bleue** (that blue skirt)	**ces chaussettes noires, orange et roses** (these black, orange and pink socks) **ce chapeau rouge** (that red hat) **ces baskets blanches** (those white trainers)	**pour l'anniversaire de mon frère/ma soeur.** (for my brother's/sister's birthday).

9. How do the adjectives agree with a noun?

Red | Amber | Green

The **colour adjectives** agree in gender (masculine, feminine) and number (singular, plural) with the nouns they modify.

Step 1: Word order

The colour (adjective) in French goes after the noun.

Step 2: Agreement

Singular (only 1)		**Plural (more than 1)**	
Masculine **un**	**Feminine** **une**	**Masculine** **des**	**Feminine** **des**
un chapeau bleu	une chemise bleue	des chapeaux bleus	des chemises bleues
un pull vert	une robe verte	des pulls verts	des robes vertes
un T-shirt jaune	une jupe Jaune	des T-shirt jaunes	des jupes jaunes
un pantalon blanc	une veste blanche	des pantalons blancs	des vestes blanches

Example:
Marc porte une chemise noire, une cravate blanche, un pantalon gris et des chaussures marron.
(Marc wears a black shirt, a white tie, grey trousers and brown shoes.)

10. Which issues do you have in a shop?

Red | Amber | Green

Je peux vous aider? (Can I help you?)			
Mini dialogues about issues in a shop.			
-Qu'est-ce que vous cherchez? (What are you looking for?) **-Je cherche une chemise rouge.** (I am looking for a red shirt.) **- Ça coûte combien, s'il vous plaît?** (How much does it cost, please?)	**-Vous aimez ce chapeau noir?** (Do you like this black hat?) **-Malheureusement, il est trop grand et plus cher que le chapeau marron.**(Unfortunately, it is too big and is more expensive that the brown hat)	**-Quel est le problème?** (What is the problem?) **-Ces pantalons sont petits et ils sont très chers.** (These trousers are small and very expensive.)	**-Avez-vous le même pull en noir?** (Do you have the same jumper in black?) **-J'ai aussi ce modèle.** (I also have this model.) **- Il est plus grand que le pull vert.** (it is smaller than the green jumper.)

s

11. How do we talk about going shopping in the past ?

Red **Amber** **Green**

The **present perfect** tense is formed of two parts:

1 the auxiliary verb (part of avoir or être)

2 the past parcticiple of regular –**er** verbs is formed by omitting the ending -**er** and adding '**é**' : achet**er** → **acheté**

acheter (to buy)	
I bought	J'ai acheté
You bought	Tu as acheté
He /She bought	Il/elle/on a acheté
We bought	Nous avons acheté
You (pl) bought	Vous avez acheté
They bought	Ils/elles ont acheté

For example:

J'ai acheté une jupe blanche.

(I bought a white skirt.)

J'ai trouvé la jupe belle. (I found it pretty.) **Elle a coûté vingt euros.** (It cost twenty euros.)

12. What is your favourite place to go shopping?

Red **Amber** **Green**

Où préferes-tu faire les magasins? (Where do your prefer to go shopping?)

Normalement, je préfère aller (Usually, I prefer going)	**au centre ville** (to the city centre) **au supermarché** (to the supermarket)	**au marché** (to the market) **au centre comercial** (to the shopping centre)	**pour** (in order to/to)	**acheter mes vêtements.** (buy my clothes)

HOME LEARNING TASKS

Task Description	Done?
Can you write a short paragraph describing Paris?	
Can you write sentences using identifiers correctly?	
Can you write a short paragraph saying you are going for a trip to Paris?	
Can you write a short paragraph using demonstrative and indefinite adjectives?	
Can you write a short paragraph talking about which clothes you buy in a shop?	
Can you write a short paragraph talking about the problems you face in a shop?	
Can you use the sentence builders above to write sentences answering the questions? Can you improve these by adding conjunctions and intensifiers?	
Practise the vocabulary in your knowledge organiser by using the look, cover, write, check method.	
Go to www.sentencebuilders.com and practise this term's vocabulary.	

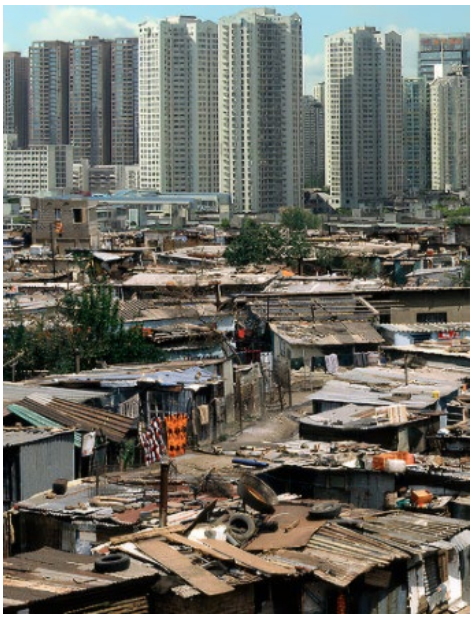
Knowledge Organiser

Geography
Year 9
Term 4
2024/25

The Abbey School

Geography Year 9 Term 4 – The Development Gap

The development gap refers to the differences in economic and social progress between countries. Some nations, known as High-Income Countries (HICs), have advanced economies, high standards of living, and strong infrastructure. Others, called Low-Income Countries (LICs), struggle with poverty, limited access to services, and unstable economies. Newly Emerging Economies (NEEs) are in transition, showing rapid economic growth but with varying levels of social development. This topic explores how we measure development, the causes and consequences of uneven development, and strategies to reduce the development gap



Prior Learning Links

- Foundations of Development Gap internationally in Term 5 of Year 8.

Future Learning Links

- From national in Term 3 to global.

KEY WORDS

- **Life expectancy** – The average number of years a person is expected to live.
- **Infant mortality** – The number of children per 1,000 live births who die before their first birthday.
- **Literacy rate** – The percentage of people in a population who can read and write.
- **People per doctor** – The average number of people each doctor is responsible for.
- **TNCs (Transnational Corporations)** – Large companies that operate in multiple countries.
- **Aid** – Assistance given from one country to another, often financial or in the form of resources.
- **Debt** – Money owed by one country to another or to financial institutions.
- **Loan** – Borrowed money that must be repaid, often with interest.
- **Microfinance** – Small-scale financial services, such as loans, provided to individuals or small businesses in developing countries.
- **Intermediate technology** – Simple, affordable technology that is appropriate for the needs of local people in developing countries.
- **Tourism** – Travel for leisure, which can bring economic benefits to host countries.
- **Sustainable** – Development that meets current needs without compromising the ability of future generations to meet theirs.
- **Development gap** – The difference in development levels between the richest and poorest countries.
- **Health** – A measure of a population's well-being, including access to healthcare and disease levels.
- **Economic** – Related to money, employment, and industries.
- **Social** – Related to people's quality of life, including education, healthcare, and rights.
- **Quality of life** – The general well-being of individuals and societies.
- **Wealth** – The total value of money and assets owned by a person or country.
- **Education** – The process of acquiring knowledge and skills.
- **DTM (Demographic Transition Model)** – A model that describes population change over time based on birth and death rates.
- **Corruption** – Dishonest or fraudulent conduct by those in power.
- **Birth rate** – The number of live births per 1,000 people per year.
- **Death rate** – The number of deaths per 1,000 people per year.
- **Natural increase** – The difference between the birth rate and the death rate.

- **Human Development Index (HDI)** – A measure of development that considers life expectancy, education, and income per capita.

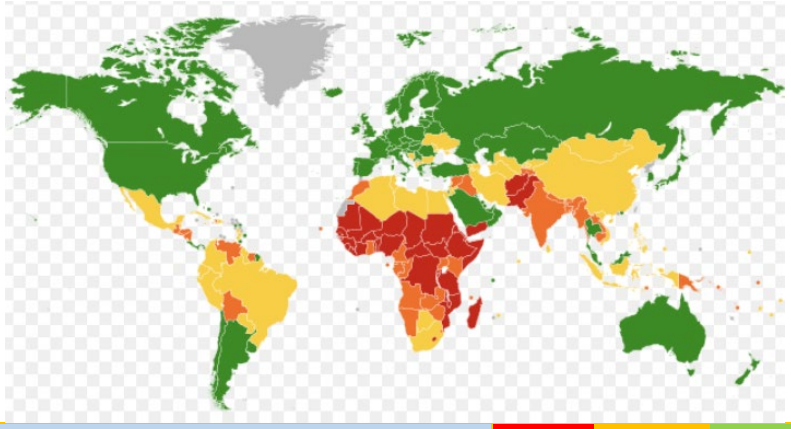
1. How do we decide how developed a country is?

Red | Amber | Green

Countries are classified based on their economic and social development. The three main categories are:

- **High-Income Countries (HICs)**: These countries have advanced economies, high levels of industrialisation, and well-developed infrastructure. Examples include the UK, USA, and Japan.
- **Newly Emerging Economies (NEEs)**: These are countries that are rapidly industrialising and experiencing economic growth. Examples include China, India, and Brazil.
- **Low-Income Countries (LICs)**: These countries have low levels of industrialisation, high poverty rates, and limited access to essential services. Examples include Chad, Afghanistan, and Haiti.

The **development gap** refers to the differences between these groups, with HICs having better access to healthcare, education, and technology compared to LICs. The gap is often a result of historical, economic, and political factors.



2. What are development indicators and how useful are they?

Red | Amber | Green

Development indicators measure economic and social progress in a country. Some key indicators include:

- **Gross Domestic Product (GDP) per capita** – The total value of goods and services produced by a country divided by its population. However, this can be misleading as it does not show income inequality.
- **Human Development Index (HDI)** – A composite measure combining life expectancy, education levels, and income. It provides a broader picture of development than GDP alone.
- **Infant Mortality Rate** – The number of babies who die before their first birthday per 1,000 live births. This reflects healthcare quality.
- **Literacy Rate** – The percentage of people who can read and write, indicating the strength of education systems.

Each indicator has strengths and weaknesses. GDP per capita, for example, does not reflect inequalities within a country, while HDI is more comprehensive but does not account for environmental sustainability.

3. What is the demographic transition model (DTM) and how is it linked to economic development?

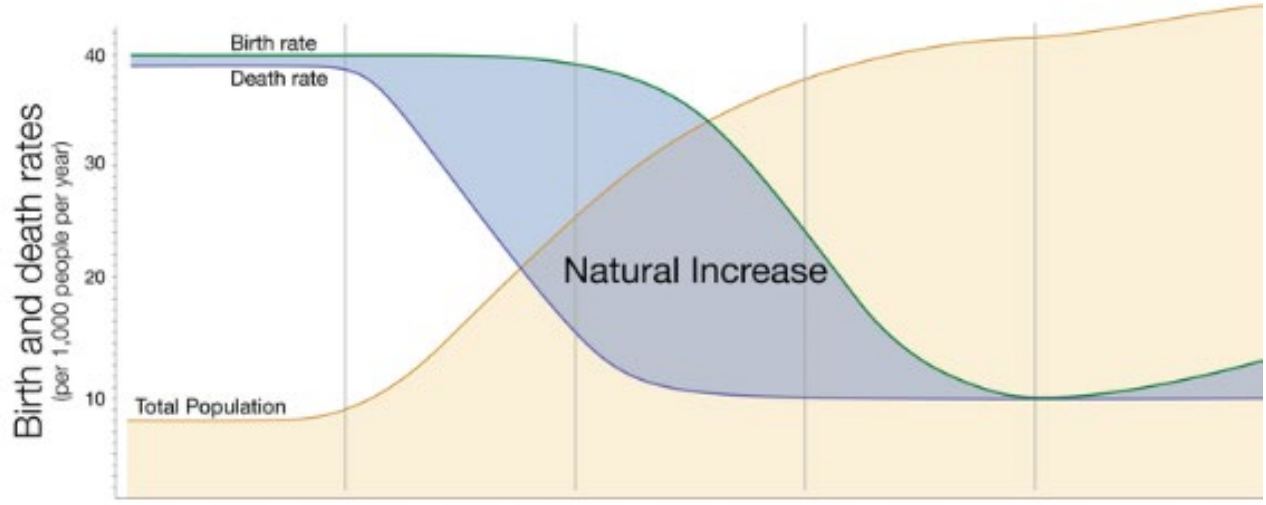
Red | Amber | Green

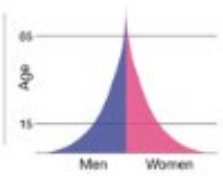
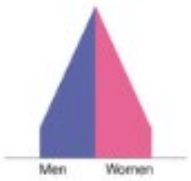
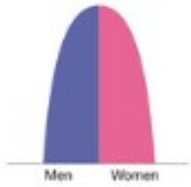
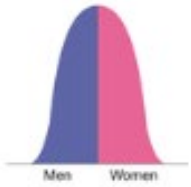
The **Demographic Transition Model (DTM)** explains how a country's population changes as it develops. It has five stages:

- **Stage 1** (High birth and death rates, low population growth) – Found in pre-industrial societies. Example: remote tribes.
- **Stage 2** (High birth rates, falling death rates, rapid population growth) – Improvements in healthcare reduce mortality. Example: Afghanistan.

- **Stage 3** (Falling birth rates, lower death rates, slowing population growth) – Urbanisation and education reduce birth rates. Example: India.
- **Stage 4** (Low birth and death rates, stable population) – Advanced economies with high living standards. Example: UK.
- **Stage 5** (Declining population as birth rates drop below death rates) – Ageing populations and economic challenges. Example: Japan.

As countries move through the stages, economic development tends to improve due to better healthcare, education, and industrialisation.



	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Birth rate	High	High	Falling	Low	Rising again
Death rate	High	Falls rapidly	Falls more slowly	Low	Low
Natural increase	Stable or slow increase	Very rapid increase	Increase slows down	Falling and then stable	Stable or slow increase
Population Pyramid					

4. How do historical, natural, and political factors affect how developed countries are?

Red | Amber | Green

Development is influenced by:

- **Historical factors**: Colonialism left many LICs with weak economies, dependent on exporting raw materials. Trade imbalances mean LICs often export cheap resources while importing expensive goods.
- **Natural factors**: Landlocked countries struggle with trade access, while harsh climates can limit agriculture. Natural disasters like droughts and earthquakes can damage infrastructure and hinder development.
- **Political factors**: War, corruption, and unstable governments can prevent economic growth. Countries with stable, transparent governments tend to attract more investment and develop faster.

5. How and why do countries develop at different speeds?

Red | Amber | Green

Countries experience different rates of development due to:

- **Access to resources**: Nations with valuable natural resources (e.g., oil, minerals) can generate wealth, but mismanagement can limit benefits.
- **Infrastructure**: Good transport and communication networks attract businesses and improve trade.
- **Education and healthcare**: High literacy rates and good healthcare create a skilled, healthy workforce, accelerating development.
- **Global trade**: Countries engaged in trade grow faster, while those isolated due to conflict or poor policies may struggle.
- **Investment**: Foreign Direct Investment (FDI) from multinational corporations can boost economic growth through job creation and infrastructure improvements.

6. What are the consequences of uneven development?

Red | Amber | Green

Uneven development causes:

- **Health inequalities**: LICs suffer from poor healthcare, leading to high infant mortality and low life expectancy.
- **Migration**: Many people migrate from LICs to HICs for better opportunities, causing brain drain in poorer nations and population pressure in wealthier ones.
- **Social unrest**: Inequality can result in protests, conflict, and political instability.
- **Economic disparity**: Unequal development leads to poverty, limited education, and job shortages in LICs.

7. How can we reduce the development gap?

Red | Amber | Green

The development gap can be reduced through a variety of approaches, each with its own advantages and challenges:

- **Aid**: Financial or material assistance from one country or organisation to another can support development. Examples include the UK's aid to Commonwealth countries or UN aid programs. However, aid can sometimes lead to dependency and may come with conditions that benefit the donor more than the recipient.
- **Microfinance loans**: Small loans provided to individuals or small businesses in developing countries can help them establish businesses, increase incomes, and improve their standard of living. For example, the Grameen Bank in Bangladesh has successfully provided microfinance loans to women, helping them start small businesses and become financially independent.
- **Investment in education and healthcare**: Improved education leads to a more skilled workforce, which attracts investment and promotes economic growth. Countries like South Korea have invested heavily in education, leading to rapid development.
- **Fair trade**: Ensures producers in LICs receive a fair price for their goods. This allows them to reinvest in their communities, improving education and healthcare access.
- **Debt relief**: Some LICs spend large proportions of their income repaying old debts. Debt relief allows them to redirect funds into essential services and infrastructure.

8. What is intermediate technology and how can it help to reduce the development gap?

Red | Amber | Green

Intermediate technology refers to simple, cost-effective solutions that improve quality of life in a sustainable way. These technologies are designed to be appropriate for the local environment, affordable, and easy to maintain. Examples include:

- **Water pumps in rural Africa**: The PlayPump, for example, uses children's play to power a water pump, providing clean drinking water for communities.
- **Solar-powered lamps in India**: Many rural households rely on expensive and polluting kerosene lamps. Solar lamps provide a cleaner, more sustainable solution.
- **Small-scale irrigation projects in Nepal**: Farmers use simple drip irrigation systems to grow crops more efficiently, improving food security and income levels.

These technologies help bridge the development gap by improving health, education, and economic opportunities while being affordable and easy to use in resource-limited settings.

9. What is fair trade and how can it help to reduce the development gap?

Red Amber Green

Fair trade is a system designed to ensure that farmers and producers in developing countries receive a fair price for their goods and have improved working conditions. The fair trade system guarantees that producers receive a minimum price for their goods, protecting them from market fluctuations. Additional funds (Fairtrade Premium) are invested in community projects such as schools, clean water, and healthcare.

Example: The Fairtrade Foundation

- In Ghana, cocoa farmers involved in Fairtrade schemes have used extra income to improve their farming techniques, build schools, and provide clean water for their communities.
- Fair trade coffee producers in Latin America have reported improved working conditions and better access to markets.

While fair trade improves living standards, it is limited by the fact that not all consumers are willing to pay higher prices for fair trade products.

10. What is debt relief and how can it reduce the development gap?

Red Amber Green

Many LICs have significant debt burdens, limiting their ability to invest in essential services. Debt relief involves reducing or cancelling a country's debt so that funds can be redirected toward infrastructure, education, and healthcare.

Example: The Heavily Indebted Poor Countries (HIPC) Initiative

- In 2005, the G8 nations agreed to cancel the debt of 18 of the world's poorest countries, allowing them to invest in development.
- Zambia used savings from debt relief to provide free healthcare for millions of people.

Debt relief helps stimulate economic growth but can be controversial if governments do not use the savings effectively or if conditions are attached that limit sovereignty.

11. How can tourism reduce the development gap?

Red Amber Green

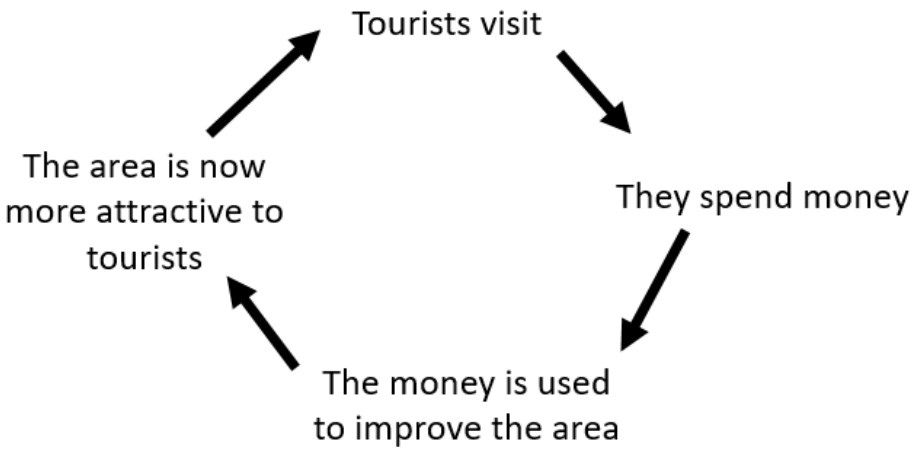
Tourism is a major industry that generates income, creates jobs, and stimulates infrastructure investment. Many LICs and NEEs rely on tourism as a key sector of their economy.

Case Study: Jamaica

- Jamaica is a Caribbean island with a warm climate, beautiful beaches, and rich culture, attracting millions of tourists each year.
- Tourism contributes over 20% of Jamaica's GDP and employs over 200,000 people.

- The **multiplier effect**: Tourists spend money on hotels, food, and transport, which benefits local businesses, increases tax revenues, and funds public services.
- Infrastructure improvements, such as airports and roads, benefit both tourists and local populations.

However, tourism has drawbacks. Seasonal employment, environmental damage (e.g., coral reef destruction), and economic leakage (profits going to foreign companies rather than local businesses) can limit its benefits.



HOME LEARNING TASKS	
Task Description	**Done?**
Revise key words	
Development Top Trumps	
Annotated Choropleth map	
Development case study fact file	

Knowledge Organiser

History
Year 9
Term 4
2024/25

The Abbey School

History Year 9 Term 4 – The British Sector of the Western Front 1914-1918: Injuries, Treatment & the Trenches

In this unit, you will explore the British sector of the Western Front during World War I, focusing on injuries, medical treatment, and trench conditions. You will examine the structure of the trenches, key battles, and the challenges of treating and evacuating wounded soldiers. The role of the RAMC and FANY in providing medical care will be assessed, alongside medical advancements such as x-rays, blood transfusions, and the Thomas splint. You will develop skills in historical analysis, evaluation, and using evidence to understand the significance of warfare in shaping medical progress during the early 20th century.

GCSE Pod – Scan Me!

Prior Learning Links

- Year 8 Term 3 – WWI
- Year 9 Term 1-3 – Medicine Through Time

Future Learning Links

- Year 10 Term 1 – Weimar Germany

KEY VOCABULARY

Historical Skills Core Vocabulary

Cause – the reason for something happening
Change – when things are different to how they were before
Consequence – the result of something happening
Continuity – the opposite of change; when something stays the same or continues
Difference – the ways in which things are different to one another
Factor – something that can affect, or determine an event or outcome
Inference - a conclusion drawn about something using the information you already have about it
Interpretation – an historian's particular view on an event/period or the significance or importance of certain features/factors in this event/period
Rate of change – the pace at which change occurs; e.g. very quickly or slowly
Reliability – the degree to which something can be trusted or relied upon as accurate
Significance – the importance of something
Similarity – the quality of being similar, or the same
Trend – when there are a number of similar and related changes continuing in the same direction over a period of time
Turning point – a significant change happens – something that is different from what has happened before and which will affect the future

Historical Context – Expand Your Vocabulary

1. **Analyse** – To examine something in detail to understand it better.
2. **Context** – The background or setting of an event that helps to explain it.
3. **Evaluate** – To judge the significance or impact of something.
4. **Innovation** – The introduction of new ideas, methods, or technologies.
5. **Logistics** – The detailed planning and organisation of a complex operation.
6. **Mortality** – The rate of death in a particular time or place.
7. **Significance** – The importance of something in relation to history or an event.
8. **Strategy** – A planned approach to achieving a goal.
9. **Sustainability** – The ability to maintain or continue something over time.
10. **Transformation** – A major change in form, nature, or function.

The British Sector of the Western Front 1914-1918 Key Vocabulary

1. **Aid Post** – The first stage in the chain of evacuation, providing immediate first aid.
2. **Aseptic Surgery** – A method that prevents infection by maintaining a sterile environment.
3. **Battle of Cambrai** – A 1917 battle where blood banks were first used effectively.
4. **Battle of the Somme** – A major 1916 battle with heavy casualties and medical challenges.
5. **Blood Transfusion** – The transfer of blood to a patient to replace lost blood.
6. **Casualty Clearing Station (CCS)** – A large medical station further back from the frontline.
7. **Chain of Evacuation** – The system used to transport wounded soldiers from the battlefield.
8. **Chlorine Gas** – A chemical weapon used in WWI that caused lung damage.
9. **Dressing Station** – A medical station where wounds were cleaned and assessed.
10. **Field Ambulance** – A mobile medical unit that transported the wounded.
11. **FANY (First Aid Nursing Yeomanry)** – A volunteer organisation providing medical care.
12. **Gas Gangrene** – A severe infection caused by bacteria in deep wounds.
13. **Infection** – The invasion of the body by harmful bacteria or viruses.
14. **Mobile X-ray Unit** – A portable x-ray machine used to detect bullet and shrapnel wounds.
15. **No Man's Land** – The area between opposing trenches.

16. **RAMC (Royal Army Medical Corps)** – The organisation responsible for medical care in the army.
17. **Regimental Aid Post (RAP)** – The first point of medical treatment for wounded soldiers.
18. **Salient** – A battlefield area that extends into enemy territory, making it vulnerable.
19. **Shell Shock** – Psychological trauma suffered by soldiers due to prolonged exposure to warfare.
20. **Shrapnel** – Fragments of metal from exploding shells, often causing severe injuries.
21. **Stretcher Bearers** – Soldiers responsible for carrying the wounded away from the battlefield.
22. **The Thomas Splint** – A device that stabilised broken leg bones, reducing mortality rates.
23. **Trench Fever** – A disease spread by lice, causing severe flu-like symptoms.
24. **Trench Foot** – A condition caused by prolonged exposure to damp, unsanitary conditions.
25. **Underground Hospital at Arras** – A medical facility built into tunnels beneath the battlefield.

Exam Command Word Guidance

Paper 1: Thematic study with historic environment		**Command Word**	**What the question is asking you to do**
Section A	Q1a & Q1b	Describe one feature of…	Demonstrate your knowledge by saying what you know about a topic using specific detail to support your answer.
	Q2a	How useful are Sources A and B for an enquiry into…?	Make a judgement about how useful two sources are for a specific enquiry. For each source you should consider what is useful about the source content and how that is affected by its provenance (Nature, Origin Purpose), and your knowledge of the historical context
	Q2b	How could you follow up Source A/B to find out more about…?	Identify a detail in a source that prompts a question, in order to find out more about the wider enquiry in the question and suggest a source which might have relevant information.

1. What was the Western Front and why was it significant? **Red** **Amber** **Green**

Are you able to…

- Can you explain the location and geography of the Western Front?
- Are you able to identify key battles that took place there?
- Can you evaluate its importance in WWI?

flaticon.com – smashicons

Core Knowledge:

- The Western Front stretched across France and Belgium.
- It was the main theatre of war between Britain and Germany.
- Trench warfare led to stalemates.
- Major battles included the Somme, Ypres, and Cambrai.
- The terrain created logistical and medical challenges.
- Millions of soldiers fought and died there.
- Heavy artillery and attritional tactics were dominant.
- The Western Front played a crucial role in WWI's outcome.

2. What was the structure of the trench system? **Red** **Amber** **Green**

Are you able to…

- Are you able to describe the layout of a trench system?
- Can you explain the purpose of different types of trenches?
- Can you assess how the trench system impacted medical treatment?

flaticon.com – smashicons

Core Knowledge:

- The trench system had frontline, support, and reserve trenches.
- Trenches were dug in zig-zag patterns for protection.
- No Man's Land separated enemy trenches.
- Barbed wire, sandbags, and duckboards reinforced trenches.
- Communication trenches connected different sections.
- Trenches suffered from mud, rats, and poor sanitation.
- Trench warfare led to high casualty rates.
- The system made medical evacuation difficult.

3. What were the key battles of the Western Front? **Red** **Amber** **Green**

Are you able to…

- Can you describe the significance of the Somme, Ypres, and Cambrai?
- Are you able to explain how these battles impacted medical needs?
- Can you analyse the success and failures of these battles?


flaticon.com – smashicons

Core Knowledge:

- The Battle of the Somme (1916) saw mass casualties and new weapons.
- The Battle of Ypres was fought over control of key territory.
- The Battle of Cambrai saw the first large-scale use of tanks.
- Battles resulted in high numbers of wounded soldiers.
- Trenches and artillery bombardments caused complex injuries.
- Innovations in treatment were developed in response.
- Weather and terrain affected battle strategies and medical response.
- These battles influenced tactics and technology in warfare.

4. What conditions required medical treatment in the trenches? **Red** **Amber** **Green**

Are you able to…

- Can you explain common illnesses and injuries soldiers faced?
- Are you able to describe how the trench environment affected health?
- Can you evaluate the effectiveness of medical responses?


flaticon.com – smashicons

Core Knowledge:

- Rifle bullets and shrapnel caused severe wounds.
- Trench foot resulted from constant exposure to wet conditions.
- Gas attacks led to blindness, burns, and respiratory issues.
- Shell shock was an early recognition of psychological trauma.
- Disease spread rapidly due to poor hygiene.
- Infection was common due to battlefield conditions.
- Medical treatments were often limited in the trenches.
- Efforts to prevent and manage conditions improved over time.

5. What challenges were faced in transporting the wounded? **Red** **Amber** **Green**

Are you able to…

- Can you describe the chain of evacuation from battlefield to hospital?
- Are you able to explain how terrain and warfare affected transport?
- Can you assess improvements in medical evacuation methods?


flaticon.com – smashicons

Core Knowledge:

- Stretcher bearers carried wounded soldiers from No Man's Land.
- The chain of evacuation included aid posts, dressing stations, and hospitals.
- Horse-drawn and motor ambulances transported casualties.
- Mud and shell-damaged roads delayed treatment.
- Casualty Clearing Stations (CCS) stabilised patients.
- Field hospitals provided more advanced treatment.
- Train and ship evacuations moved soldiers back to Britain.
- Transport delays often worsened soldiers' conditions.

6. What was the role of the RAMC in WWI? **Red** **Amber** **Green**

Are you able to…

- Can you explain the responsibilities of the RAMC?
- Are you able to describe the different medical facilities used?
- Can you evaluate the effectiveness of the RAMC's work?


flaticon.com – smashicons

Core Knowledge:

- The RAMC (Royal Army Medical Corps) provided medical care.
- They managed field hospitals and medical transport.
- Doctors and orderlies treated wounds and illnesses.
- They worked in aid posts, dressing stations, and CCS.
- The RAMC improved surgery and infection control.
- They pioneered new medical evacuation strategies.
- Nurses and doctors adapted to new medical challenges.
- Their work saved thousands of lives despite difficult conditions.

7. What role did the FANY play during WWI? **Red** **Amber** **Green**

Are you able to…

- Can you explain what the First Aid Nursing Yeomanry (FANY) was?

- Are you able to describe the types of work FANY volunteers did?
- Can you assess the significance of their contribution?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Core Knowledge:

- FANY was a volunteer organisation supporting medical care.
- Women served as ambulance drivers and nurses.
- They provided first aid on the battlefield.
- FANY ran mobile soup kitchens and medical supplies.
- They transported wounded soldiers away from battle.
- Their work expanded as the war progressed.
- FANY proved women could contribute effectively to wartime efforts.
- Their role helped to shift attitudes towards women in work.

8. How did medical treatment evolve on the Western Front? **Red** **Amber** **Green**

Are you able to…

- Can you explain how medicine adapted to wartime injuries?
- Are you able to describe new treatments developed during WWI?
- Can you evaluate the significance of these developments?


flaticon.com – smashicons

Core Knowledge:

- Blood transfusions helped prevent death from blood loss.
- The Thomas splint reduced death rates from leg injuries.
- Mobile x-ray units improved diagnosis of wounds.
- Aseptic surgery helped prevent infection.
- The first blood bank was set up for the Battle of Cambrai.
- New surgical techniques improved survival rates.
- Doctors learned more about wound treatment.
- These advances influenced medicine beyond WWI.

9. What was the impact of gas attacks? **Red** **Amber** **Green**

Are you able to…

- Can you describe the different types of gas used in WWI?
- Are you able to explain how gas affected soldiers?
- Can you assess the effectiveness of gas protection?


flaticon.com – smashicons

Core Knowledge:

- Chlorine, phosgene, and mustard gas were used.
- Gas caused blindness, burns, and lung damage.
- Soldiers developed masks to protect themselves.
- Initial protection was ineffective.
- Gas attacks created panic and fear.
- Medical treatments were limited.
- Gas warfare changed battlefield tactics.
- Later treaties banned chemical weapons.

10. How did the underground hospital at Arras function? **Red** **Amber** **Green**

Are you able to…

- Can you explain why the underground hospital was built?
- Are you able to describe its features and facilities?
- Can you evaluate its impact on medical treatment?


flaticon.com – smashicons

Core Knowledge:

- Located in tunnels beneath Arras.
- Protected from enemy shelling.
- Contained operating theatres and beds.
- Electricity and running water improved conditions.
- Treated thousands of wounded soldiers.
- Helped stabilise patients before evacuation.
- Part of the broader chain of evacuation.
- Showed innovation in wartime medicine.

11. How significant was WWI for future medical advancements? **Red** **Amber** **Green**

Are you able to…

- Can you describe medical developments made during WWI?
- Are you able to explain how they influenced later medicine?

- Can you assess the long-term impact of WWI on healthcare?

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Core Knowledge:

- WWI advanced surgery and trauma care.
- Blood transfusion and storage improved.
- Mobile x-rays became common in hospitals.
- Psychological trauma gained recognition.
- Governments increased investment in medicine.
- Medical technology improved rapidly post-war.
- Lessons from WWI shaped future battlefield medicine.
- Some advancements still influence modern treatment.

12. What was the historical medical context before WWI? **Red** **Amber** **Green**

Are you able to…

- Can you describe medical knowledge before the war?
- Are you able to explain how pre-war medicine shaped WWI treatment?
- Can you evaluate how WWI challenged existing medical ideas?

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Core Knowledge:

- Germ Theory influenced infection control.
- Aseptic surgery was still developing.
- Blood transfusions were in early stages.
- X-rays had been discovered but were not mobile.
- Understanding of trauma medicine was limited.
- Psychological illness was poorly understood.
- The war forced rapid medical progress.
- WWI was a turning point in medical history.

HOME LEARNING TASKS

Task Description	**Done?**
Vocabulary Definitions Using your knowledge organiser, write clear definitions for the following key terms: **RAMC, FANY, shrapnel, trench foot, casualty clearing station, base hospital, gas attacks, stretcher bearers, Thomas splint, mobile X-ray unit.** Then, for each term, write a sentence explaining its significance in the context of medical treatment on the Western Front.	
Exam Style Short Answer Questions 1. Describe one feature of the trench system on the Western Front 2. Describe one feature of the difficulties faced in transporting the wounded away from the front line 3. Describe one feature of how the conditions in the trenches contributed to illness and disease 4. Describe one feature of the RAMC	
Timeline of Medical Developments Create a chronological timeline of key medical developments during World War I. Your timeline should include at least six significant events or innovations, such as: • The introduction of the Thomas splint • The first use of blood transfusions on the battlefield • The development of mobile X-ray units For each event, write a brief explanation of why it was significant.	
Historical Interpretations Read the following statement: *"Medical treatment on the Western Front was effective despite the challenges faced by doctors and nurses."* Using your knowledge organiser, write a **structured paragraph** explaining whether you agree or disagree with this statement. Include evidence from key battles, medical advances, and the role of organisations such as the RAMC and FANY.	
Exam Style Long Answer Question Explain how scientific developments adapted to meet the demands of the Western Front environment. You should include references to: The development of antiseptics and aseptic surgery The impact of blood transfusions and storage How WWI innovations contributed to later medical advancements	

Knowledge Organiser

ICT

Year 9

Term 4

2024/25

The Abbey School

ICT Year 9 Term 4- User Interfaces

Term Focus –

Prior Learning Links	Future Learning Links
• Year 9 term 2	• Year 10 Term 4- Coursework

KEY VOCABULARY

KEY WORDS/ SUBJECT TERMINOLOGY

- **User Interface (UI)** – The way a user interacts with a system, including visual layout and controls.
- **Graphical User Interface (GUI)** – A UI that uses images, icons, and menus rather than text commands.
- **Accessibility** – Designing UI to be usable by people with disabilities, e.g., screen readers.
- **Usability** – How easy and efficient a system is for users to operate.
- **Navigation** – How users move through a system or website.
- **Wireframe** – A basic layout or blueprint of a UI design.
- **Prototyping** – Creating a sample version of a UI to test before final development.
- **House Style** – Consistent design elements used across a system (e.g., colours, fonts, layouts).
- **Version Control** – Keeping track of changes to files or software.
- **Gantt Chart** – A project planning tool that displays tasks over time.
- **Feasibility Study** – Assessing whether a project is practical and viable.

1. What is a User Interface?

Red Amber Green

A **user interface (UI)** is the way a person interacts with a computer, website, or app. It includes everything you see on the screen, like buttons, menus, and icons, that help you control the device or software.

For example, when you use a phone, the home screen with app icons, the keyboard for typing, and the settings menu are all part of the user interface. A good UI makes it easy to use the device or program without confusion.

Think of it like the controls of a video game—if the buttons are well placed and easy to understand, you can play smoothly. If they are confusing, the game is harder to use! 🎮💻

2. What is house style?

Red Amber Green

House style in relation to **user interfaces (UI)** refers to a set of design rules that make sure all screens, buttons, fonts, and colours look consistent across a website, app, or software.

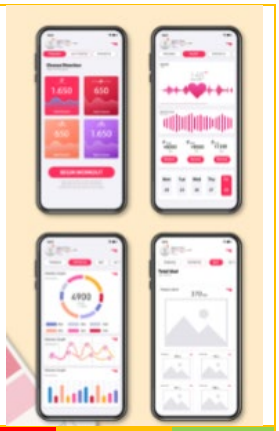
Companies use a house style to make their UI **clear, professional, and easy to use**. It helps users recognise and navigate their apps or websites without confusion.

For example:

- **Colours and fonts** – A company might always use the same blue background and white text.

- **Logos and branding** – Their logo is always in the top-left corner.
- **Button styles** – All buttons might be rounded and green when active.

Think about social media apps—Instagram, Snapchat, and TikTok all have their own house style, so you instantly know which one you're using! 📱



3. Why is layout important? Red Amber Green

Layout in relation to **user interfaces (UI)** is how everything is arranged on the screen to make it easy to use and understand. A good layout helps users find what they need quickly and makes an app or website look neat and organised.

Key parts of layout in UI:

- **Navigation bar** – Menus or icons at the top or side to help users move around.
- **Headings and sections** – Content is grouped into clear areas, like news feeds, settings, or messages.
- **Spacing and alignment** – Buttons, text, and images are lined up properly and not too close together.
- **Readability** – Text is big enough and colours contrast well so it's easy to read.

For example, on a shopping website, the layout might have the logo at the top, a search bar in the middle, and product categories on the side—this makes it simple for users to browse and buy! 🛍️💻

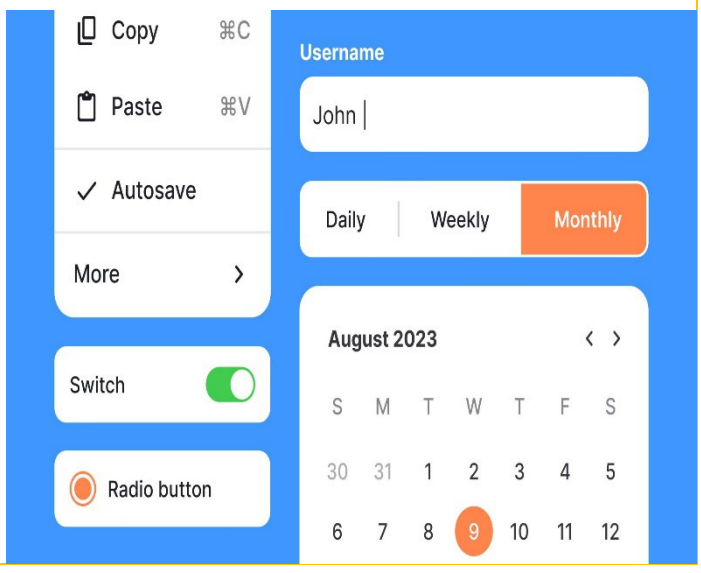
4. What does GUI Components mean? Red Amber Green

GUI Components (Graphical User Interface Components)

A **GUI (Graphical User Interface)** is what you see on a screen when using a computer, app, or website. **GUI components** are the different parts that make it easy for users to interact with the system.

Common GUI Components:

1. **Windows** – Boxes that display content, like a settings window or a file explorer.
2. **Icons** – Small images that represent apps, files, or tools (e.g., the recycle bin 🗑️).
3. **Buttons** – Clickable elements that perform an action (e.g., "Submit" or "Play" 🎮).
4. **Menus** – Lists of options, like a drop-down menu in a website's navigation bar.
5. **Text boxes** – Areas where users can type information, such as a search bar.
6. **Sliders** – Used to adjust settings, like volume controls.
7. **Scroll bars** – Allow users to move up and down a page.
8. **Check boxes and radio buttons** – Options for selecting choices, like agreeing to terms and conditions.



A **good GUI** makes software easy to use by using clear icons, organised menus, and interactive buttons. Think of a game controller—it has different buttons that do different things, just like GUI components in an app or website! 🎮💻

5. How can colour be used to influence people?	Red	Amber	Green

How Colour Can Influence Users in a User Interface (UI) 🎨

Colour plays an important role in user interfaces because it affects how people feel and behave when using a website, app, or software. Different colours can send different messages and guide users' actions.

Ways Colour Influences Users:

1. **Creates Mood and Emotion**
   - **Blue** 💙 – Makes users feel calm and secure (used by banks and social media like Facebook).
   - **Red** ❤️ – Grabs attention and creates urgency (often used for sales or warnings).
   - **Green** 💚 – Symbolises success, growth, or eco-friendliness (used for "Go" or confirming actions).
2. **Guides User Actions**
   - **Bright colours** (like red or orange) are often used for important buttons, such as "Buy Now" or "Subscribe."
   - **Greyed-out buttons** show that an option is unavailable.
3. **Improves Readability and Accessibility**
   - Dark text on a light background (or vice versa) makes content easier to read.
   - Colour contrast helps users with visual impairments.
4. **Strengthens Brand Identity**
   - Companies use specific colours to make their brand memorable (e.g., McDonald's red and yellow 🍟, Spotify's green 🎵).

A well-designed UI uses colour wisely to **make navigation easier, attract attention, and create a better user experience**. 🎨💻

6. How can sound be used?	Red	Amber	Green

How Sound Can Help Users Understand What Is Happening 🎶🔊

Sound is a powerful tool in user interfaces (UI) because it gives users important feedback and helps them understand what's going on in an app or website. It can guide actions, alert users to changes, or make the experience more engaging.

Ways Sound Helps Users:

1. **Feedback Sounds**
   - **Click or tap sounds** – When users click a button or perform an action, a sound can confirm that the action has been recognised.
   - **Error sounds** – A specific sound can alert the user when something goes wrong (e.g., a wrong password or a failed upload). This helps users quickly notice an issue.
2. **Alerts and Notifications**
   - **Alarm or beep sounds** – Used for important notifications or reminders, like a new message or a low battery warning. They grab attention and tell the user that something requires immediate action.
   - **Soft notification tones** – These are less intrusive and are often used for things like new emails or updates, keeping the user informed without being overwhelming.
3. **Guiding Progress**
   - **Sound effects for loading or completion** – A sound can let users know when a process is finished (e.g., a "ding" when a file has finished downloading). This helps users know they can move on.
   - **Background sounds** – Subtle sounds, like a soft chime, can signal that something is working in the background without distracting the user.

4. **Enhancing User Experience**
    - **Ambient sounds** – Background music or environmental sounds can make the app feel more immersive and enjoyable, such as in a game or a meditation app.

By using sound carefully, apps and websites can create a clearer, more intuitive experience for users, making it easier to understand what's happening and what to do next. 🎧📱

7. How can visuals be used to make interfaces easier? Red Amber Green

How Visuals (Photos, Symbols, and Graphics) Can Make Interfaces Easier to Use 🖼️🎨

Visuals, such as photos, symbols, and graphics, are important in user interfaces (UI) because they can help users understand information quickly, make the experience more engaging, and guide their actions without needing to read long text.

Ways Visuals Improve User Interfaces:

1. **Making Navigation Easier**
    - **Icons and Symbols** – Simple pictures, like a magnifying glass for search 🔍 or a shopping cart for purchases 🛒, help users recognise actions faster than text alone. Symbols can make a website or app more intuitive.
    - **Buttons with images** – Instead of just saying "Play," an image of a **play button** (▶) makes it instantly clear what will happen when clicked.
2. **Enhancing Communication**
    - **Photos** – Pictures, like product images or profile pictures, can make information more meaningful. For example, on an e-commerce site, seeing a photo of a product helps users decide if they want to buy it.
    - **Charts and Graphs** – Visual data like bar charts 📊 or pie charts 🥧 are easier to understand than reading raw numbers, helping users quickly understand trends or comparisons.
3. **Reducing Text and Improving Clarity**
    - **Infographics** – Combining images with short text or labels helps explain complex ideas quickly. For example, an infographic can show step-by-step instructions with both images and short descriptions.
    - **Progress Indicators** – Graphics like loading bars or spinning icons 🌀 show users what's happening (e.g., "the app is loading"), so they know what to expect.
4. **Attracting Attention**
    - **Highlighting important actions** – Visual elements like **bold images** or **bright buttons** attract users' attention, directing them toward important tasks (like signing up or completing a purchase).
    - **Use of colour and contrast** – High contrast between elements (e.g., a red warning icon ⚠) draws attention to things that need immediate action.
5. **Improving Accessibility**
    - **Visual cues for accessibility** – Images and symbols can help users who have difficulty reading or understanding text, like icons showing play/pause buttons for those with reading difficulties.
    - **Alternative Text (Alt Text)** – Descriptions of images allow screen readers to describe visuals to users with visual impairments.

By using visuals, interfaces can be **more user-friendly**, **easier to navigate**, and **quicker to understand**, which makes the overall experience more enjoyable and efficient for the user! 🌟💻

8. What is intuitive design? Red Amber Green

What is Intuitive Design? 🤔💡

Intuitive design means creating an interface that feels **natural** and **easy to use** without needing to explain much. When a design is intuitive, users can quickly figure out how to use it because it matches their **expectations** and **common sense**.

Key Features of Intuitive Design:

1. **Familiarity**

- The design uses common elements and patterns that users already know. For example, putting the **search bar at the top** of a website, because most people expect it there. It makes sense because it's where people are used to looking.

2. **Clear Layout**
   - The interface is organised in a way that feels natural. For example, putting **important buttons** like "Submit" or "Next" at the bottom of the screen makes them easy to find. **Spacing** is also used properly, so things don't look crowded or confusing.
3. **Consistent Design**
   - Elements like **buttons, colours, and fonts** are the same throughout the interface. This way, users know what to expect. For example, **blue buttons** might always mean something is clickable, while **red buttons** might show warnings.
4. **Feedback and Responses**
   - The system gives **clear feedback** when the user does something. For example, if you click a button, the button might **change colour** or give a small animation to show that it has been clicked. It lets users know their action was successful.
5. **No Confusing Steps**
   - There are no complicated processes or hidden actions. Users don't have to think too hard about what to do next, because the interface guides them naturally. For example, when you open an app, it might show you **clear options** like "Start" or "Sign In" that make sense.

Example of Intuitive Design:

Think about how **smartphones** are designed. Most apps and features use simple gestures like **tapping, swiping, or pinching**, which are easy to understand even without instructions. The design feels "intuitive" because it aligns with how we naturally interact with touchscreens.

In short, **intuitive design** means creating an interface that **feels obvious** and doesn't require a lot of effort to understand. It's like when a game controller's buttons are placed where your fingers naturally go—it just makes sense! 🎮✨

9. How can web links be made clear? Red Amber Green

How to Make Web Links Obvious in a UI 🌐🔗

Web links need to be easy for users to find and recognise in a user interface (UI), so they can navigate smoothly through a website or app. Here are some ways to make links stand out:

1. Use a Different Colour

- **Common Practice**: Links are often shown in a **blue** colour, which is instantly recognisable as clickable to most users.
- **Highlight on Hover**: Links can change colour when the user hovers over them with the mouse or finger (e.g., turning darker or underlined). This makes it clear that the element can be clicked.

2. Underline Links

- **Traditional and Recognisable**: Underlining links is a standard way to show they are clickable. Many users expect it, and it's easy to spot.
- **Avoid Overuse**: Don't underline regular text, as it can confuse users into thinking it's a link.

3. Use a Button or Icon

- Links can also be designed as **buttons** with clear labels (e.g., "Learn More" or "Click Here") to make them stand out more, especially in call-to-action areas.
- **Icons** next to links (like a **chain link icon** 🔗) can also suggest that the text is a clickable link.

4. Make Links Larger or More Prominent

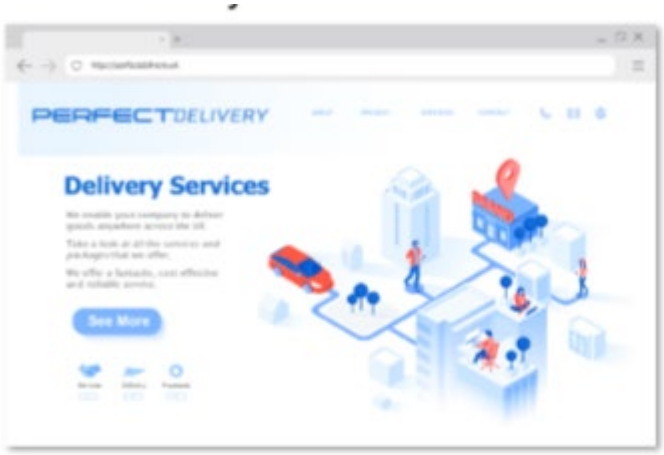
- **Font Size**: Use a larger font size for links, or make them **bold** to help them stand out from regular text.
- **Spacing**: Leave enough space around links so users can easily spot and click them without confusion.

5. Use Descriptive Text

- Avoid vague text like “Click here” and use **clear, descriptive words** (e.g., “Read our Privacy Policy” or “Explore the Gallery”). This helps users understand exactly where the link will take them.

6. Provide Visual Feedback on Interaction

- When users click or tap on a link, provide a **visual response** (like a subtle animation or changing the link’s colour or background). This confirms the action and helps users understand they've interacted with a clickable element.



7. Make Links Consistent

- Keep the **design of links consistent** across your site or app (same colour, size, and style), so users know that whenever they see these design elements, they’re clickable.

By using these techniques, you can make web links **obvious** and ensure users can navigate your site without confusion! 👆📱

10. How can accessibility be included in UI? Red Amber Green

Key Areas to Learn About Accessibility in User Interface (UI) Design ♿🌐

Accessibility in UI design is all about making sure everyone, including people with disabilities, can use and enjoy digital products. Below are some essential areas related to accessibility that students should explore:

1. What is Accessibility?

- **What it is**: Accessibility means designing websites, apps, or software so that people with a variety of disabilities (e.g., visual, auditory, cognitive) can use them effectively.
- **Why it’s important**: Ensuring accessibility makes digital content inclusive, helping more people access information, services, and entertainment.

2. Visual Accessibility 👀

- **What it is**: Designing for users with visual impairments, such as blindness, colour blindness, or low vision.
- **Why it’s important**: Many users rely on assistive technologies like screen readers to interact with digital content.
- **Key Concepts**:
  - **Colour Contrast**: Ensuring there’s enough contrast between text and the background to make content readable for users with low vision.
  - **Text Size and Scalable Fonts**: Text should be easy to resize without breaking the layout, so users with low vision can adjust it to their preference.
  - **Screen Reader Compatibility**: Providing text descriptions for images (alt text), making sure all content can be read aloud by screen readers.
  - **Avoiding Colour-Only Indicators**: Using colour alone (e.g., red for errors) may not be clear to colourblind users, so include text or icons alongside colour.

3. Auditory Accessibility 👂🎧

- **What it is**: Designing for users with hearing impairments.
- **Why it’s important**: People who are deaf or hard of hearing might not be able to rely on audio cues or speech.
- **Key Concepts**:
  - **Captions and Subtitles**: Providing text for spoken dialogue in videos.
  - **Visual Alerts**: Instead of just using sounds for notifications (e.g., message alerts), provide visual cues like flashing icons or banners.
  - **Sign Language**: Some platforms may include video sign language interpreters for content delivery.

4. Cognitive Accessibility □

- **What it is**: Designing for users with cognitive or learning disabilities, such as dyslexia, ADHD, or memory problems.
- **Why it's important**: Many users need simpler layouts and clearer instructions to navigate content easily.
- **Key Concepts**:
  - **Simple Language**: Using clear, easy-to-understand language and avoiding jargon.
  - **Clear Structure**: Breaking up content into smaller, digestible sections, and using headings and bullet points for easier reading.
  - **Focus Management**: Making sure that interactive elements (like buttons) are easy to navigate, especially for users who rely on keyboard navigation or screen readers.
  - **Avoiding Overstimulation**: Reducing distractions like too many flashing elements or excessive pop-ups that may overwhelm users.

5. Keyboard Navigation ⌨

- **What it is**: Designing interfaces that are fully navigable using only a keyboard.
- **Why it's important**: Many users, especially those with motor disabilities, rely on keyboards instead of a mouse or touchscreen.
- **Key Concepts**:
  - **Tab Order**: Ensuring the logical order of elements when users navigate through a page using the **Tab key**.
  - **Keyboard Shortcuts**: Providing alternative keyboard shortcuts for tasks, such as submitting forms or navigating menus.
  - **Focusable Elements**: Ensuring all interactive elements (buttons, links, form fields) can be selected using the keyboard.

6. Alternative Input Devices 🖱

- **What it is**: Designing for users who rely on devices other than a mouse or keyboard, such as switches or voice control.
- **Why it's important**: Some users may have limited motor control or prefer to use alternative devices for navigation.
- **Key Concepts**:
  - **Voice Commands**: Supporting voice navigation, like Siri or Google Assistant, to allow users to control the UI hands-free.
  - **Switch Access**: Designing interfaces that work well with switch devices, where users can select items one step at a time by activating a switch.

7. Accessible Forms 📋

- **What it is**: Ensuring forms are easy to complete for users with disabilities.
- **Why it's important**: Forms are a common part of many digital experiences, from signing up for services to making purchases.
- **Key Concepts**:
  - **Labeling Form Fields**: Clearly labeling each form field (e.g., "First Name", "Email Address") and providing helpful instructions.
  - **Error Identification**: If a user makes a mistake, the error should be clearly indicated and easy to correct.
  - **Field Validation**: Making sure users know when fields are required and guiding them through the process.

8. Testing for Accessibility □

- **What it is**: Ensuring that websites and apps are accessible through testing and feedback from users with disabilities.
- **Why it's important**: Testing is crucial to identifying accessibility problems before releasing a product.
- **Key Concepts**:
  - **Automated Accessibility Tools**: Tools like **WAVE** or **axe** can scan web pages for accessibility issues (e.g., missing alt text or poor contrast).
  - **User Testing with Assistive Technologies**: Observing users who rely on screen readers, voice commands, or other assistive devices to interact with the interface.

- **WCAG Guidelines**: The **Web Content Accessibility Guidelines (WCAG)** provide detailed standards for accessibility, helping designers meet legal and ethical requirements.

9. Legal and Ethical Considerations 👯

- **What it is**: Laws and guidelines that require digital products to be accessible for all users.
- **Why it's important**: Making digital products accessible isn't just about good design—it's often a legal requirement.
- **Key Concepts**:
  - **ADA Compliance**: In some countries, like the U.S., the **Americans with Disabilities Act (ADA)** requires that websites and apps be accessible.
  - **Equality and Inclusion**: Ethical design ensures that everyone, regardless of ability, can access the information and services they need.

10. Design for Multiple Disabilities 🌈

- **What it is**: Creating interfaces that consider users with **multiple** types of disabilities.
- **Why it's important**: Many users have more than one disability, and the interface needs to be accessible for all of their needs.
- **Key Concepts**:
  - Designing with **overlapping needs** in mind—e.g., a user who is both colourblind and has low vision.
  - **Multiple solutions**—e.g., offering both captioning and audio descriptions for videos to accommodate both auditory and cognitive disabilities.

	Red	Amber	Green

Red	Amber	Green

HOME LEARNING TASKS	
Task Description	**Done?**
Have a look at website and analyse how accessible it is	
Mock up a UI that makes important information stand out in different colours and fonts	
Compare UI on different phones and write up which you prefer and why	
Pick a company and see how they have represented their branding on their UI	

Knowledge Organiser

Media
Year 9
Term 4
2024/25

The Abbey School

Media Year 9 Term 4- Photopea

Term Focus –

Prior Learning Links	Future Learning Links
• Year 9 term 3 Film Posters	• Year 10 Term 4- Practical Coursework

KEY VOCABULARY

KEY WORDS/ SUBJECT TERMINOLOGY

 Canvas: The workspace where you create and edit your design or image.
 Toolbar: The panel on the left side of Photopea containing tools for editing, such as the Move Tool, Brush Tool, and Selection Tools.
 Layers: Different levels in your project that stack to create the final image. Layers can contain text, images, or effects and can be edited independently.
 Menu Bar: The horizontal bar at the top of the screen with options like File, Edit, Image, and Layer for accessing different commands.
 Panels: Smaller sections on the right side of the interface (e.g., Layers Panel, History Panel) that help you manage and organise your project.
 Move Tool: Allows you to move objects, layers, or selections around the canvas.
 Selection Tools: Used to select specific parts of an image or design for editing. Examples include:

- **Rectangular Marquee Tool**: Selects rectangular areas.
- **Lasso Tool**: Freehand selection for irregular shapes.
- **Magic Wand Tool**: Selects areas based on similar colours.

 Brush Tool: Used for drawing or painting on the canvas with a brush of your choice.
 Eraser Tool: Removes parts of an image or layer.
 Text Tool: Allows you to add and edit text on the canvas.
 Gradient Tool: Creates a gradual transition between two or more colours.
 Crop Tool: Trims or resizes your canvas or image.
 Opacity: Controls how transparent or visible a layer or element is.
 Blending Modes: Settings that determine how a layer interacts with the layers below it (e.g., Multiply, Overlay, Screen).
 Resolution: The clarity of an image, often measured in pixels per inch (PPI). Higher resolution means better quality.
 Raster vs Vector:

- **Raster**: Made of pixels (e.g., photos).
- **Vector**: Made of shapes and paths (e.g., logos).

 Masking: A technique to hide or reveal parts of a layer without permanently deleting anything.

1. How do I use the Brush tool in Photopea? Red Amber Green

Brush Tool

1. Select the Brush Tool from the Toolbar (or press B on your keyboard).
2. Choose a brush style from the Brush Preset dropdown in the top options bar.
3. Adjust the size and hardness using the Size and Hardness sliders.
4. Set the Foreground Colour by clicking the colour box at the bottom of the Toolbar.
5. Click and drag on the canvas to start painting.
6. Undo mistakes using Ctrl+Z (or Cmd+Z on Mac).

2. How do I use Spot healing brush tool? Red Amber Green

Spot Healing Brush

1. Select the Spot Healing Brush Tool from the Toolbar (or press J).
2. Adjust the size of the brush using the Size slider.
3. Click or drag over unwanted spots or blemishes on your image.
4. Photopea will automatically fill in the area based on surrounding pixels.

3. How do I use the gradient tool?	**Red**	**Amber**	**Green**

Gradient Tool

1. Select the Gradient Tool from the Toolbar (or press G).
2. Choose a gradient style from the top options bar.
3. Click and drag on the canvas to apply the gradient.

4. How do I use the clone tool?	**Red**	**Amber**	**Green**

Clone Tool

1. Select the Clone Tool from the Toolbar (or press S).
2. Hold Alt (Option on Mac) and click to set your source point.
3. Release Alt and paint over the area you want to clone

5. How do I adjust white balance	**Red**	**Amber**	**Green**

White Balance

1. Open your image and select the White Balance Tool from the Adjustments Panel.
2. Click on an area of the image that should be neutral (e.g., a white or grey area).
3. Photopea will automatically adjust the image's colour balance.

6. How do I use the crop tool?	**Red**	**Amber**	**Green**

Crop Tool

1.Select the Crop Tool from the Toolbar (or press C).
2. Drag the edges of the crop box to resize.
3. Press Enter (Return on Mac) to apply the crop.

7. How do I use the magic cut tool?	**Red**	**Amber**	**Green**

Magic Cut

1. Select Magic Cut from the Select menu.
2. Photopea will automatically try to detect and separate the subject from the background.
3. Refine the edges if needed and click OK to apply

8. How do I wrap text?	**Red**	**Amber**	**Green**

Text Wrapping

1. Choose the pen tool and change from 'path' to 'shape'
2. Change the fill to 'none'
3. Use the guide lines to create a shape
4. Choose the type tool and adjust the font and size
5. Click in the shape and type, it should move automatically down when you reach the edge of the shape

9. How do I type on a path?	**Red**	**Amber**	**Green**

Typing on a Path

1. Use the Pen Tool to create a path (click P to select). Click and hold to change the type of pen.
2. Select the Text Tool (T) and click on the path you created.
3. Type your text, which will follow the shape of the path.

Note that this works the same way with shapes, just change the 'shape' option to 'path' before you add to the canvas

10. How do I use the content aware tool?	**Red**	**Amber**	**Green**

Content Aware

1. Select the area to remove using the Lasso or Marquee Tool.
2. Go to Edit > Fill, and select Content Aware.
3. Click OK, and Photopea will fill the selected area using surrounding pixels.

	Red	**Amber**	**Green**

Red **Amber** **Green**

HOME LEARNING TASKS	
Task Description	**Done?**
Use photopea to practise the skills above	
Create a collage of picture on photopea	
Edit a photo on photopea	
Design a poster for a film on photopea	

Knowledge Organiser

Music
Year 9
Term 4
2024/25

The Abbey School

Music Year 9 Term 4
Popular Music

Term Focus

You will learn how to:

- develop your knowledge and understanding of music through performing
- perform a piece of popular music
- develop an understanding of popular music
- listen to and identify features of popular music

Prior Learning Links

- Year 7 Term 3&4 Keyboard Skills – students will have explored some four chord popular songs
- Year 8 Term 1&2 Ukulele Skills – students have learnt basic chords on the ukulele and performed popular songs
- Year 8 Term 5&6 – students have explored popular music structures and features and explored writing popular songs

Future Learning Links

- Component 1 – all students will perform two pieces of music, at least one must be as part of an ensemble
- Component 3 – students will be assessed through a written/listening examination that will assess their knowledge of AoS4: Popular Music

KEY VOCABULARY

KEY WORDS	KEY SUBJECT TERMINOLOGY
Genre: describes the music's form, style and cultural influence	**Primary chords:** the three major chords I, IV and V in any major key
Lyrics: the words in a song	**Power chords:** chords played on the guitar that use the first and fifth note of the scale
Ballad: a slow, sentimental or romantic song	**Verse-chorus structure:** a songwriting structure based around two repeating sections; a verse and a chorus
Distortion: an electric guitar effect to give a heavier, crunchier sound	**Hard rock:** loud and aggressive, dominated by a distorted electric guitar playing solos and power chords
Hook: a musical idea (like a riff or phrase) used to catch the listeners' attention	**Heavy Metal:** harder and more distorted than hard rock, with longer guitar solos
Instrumental: part of the song without any vocals, just instruments	**Psychedelic rock:** lots of guitar effects and unusual electronic instruments. Lyrics were weird and dream-like
Major: music that sounds happy, bright, cheerful	**Glam rock:** theatrical and glitzy. More of a rock 'n' roll feel with catchy hooks. Performers often had sparkly costumes and wore lots of make-up
Minor: music that sounds more sad, solemn, mysterious	**Punk rock:** harsh, angry music from the '70s. Distorted guitars and lyrics about anarchy and rebellion
Key signature: tells you what sharps or flats (if any) are in the piece of music	**Progressive (prog) rock:** songs were experimental and complicated, albums often had a theme. Features long instrumentals, electronic effects and mythological or nonsensical lyrics
Interval: the gap between two notes	**Electronic effects:** music/sounds made with electronic instruments, computers or music technology

1. What are the main features of Rock music?

Red | Amber | Green

By the 1960's, Rock 'n' Roll was evolving into a new style, known simply as **ROCK MUSIC**. The 1960's was an age of revolution and experimentation in which many of society's traditional values were being challenged. Rock Music emerged as a highly versatile musical genre that could be adapted in many different ways. It became the art form through which artists expressed the many turbulent changes taking place in society.

LYRICS

The lyrics of Rock Songs covered a wider-range of subject matter than the simpler lyrics of Rock 'n' Roll, and now included themes such as politics, philosophy, religion and literature featuring powerful lyrics. Songs needed to be powerful and memorable to engage audiences and encourage people to sing along and dance.

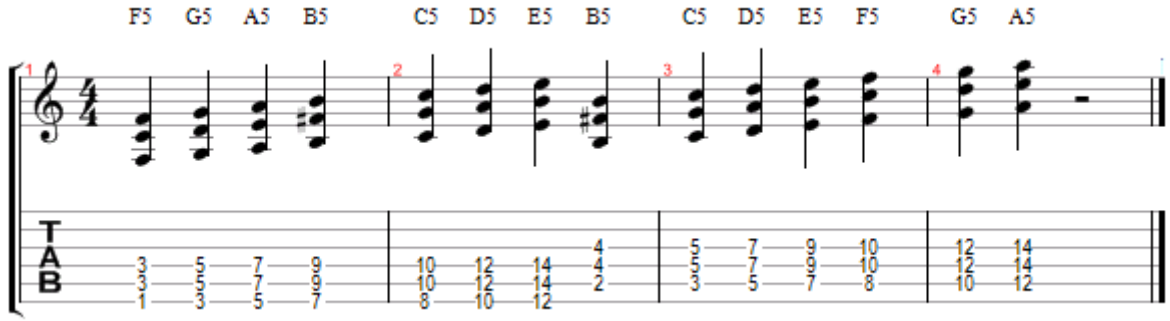
TEMPO & METRE

The tempo of Rock Songs is **MODERATE TO MEDIUM FAST** *(Allegro Moderato)* with a 4/4 time signature and features a steady, strong **ROCK BEAT** of approximately 110-120 bpm.

HARMONY & TONALITY

As with Rock 'n' Roll, early Rock Songs tend to be based around the **PRIMARY CHORDS** of I, IV and V, although later Rock Songs began using the **AUXILIARY CHORDS** of II, III and VI. Groups such as The Beach Boys, used an even wider range of chords including **CHROMATIC CHORDS, ADDED SIXTH CHORDS, CHORDS IN FIRST AND SECOND INVERSION** and **ALTERED NOTE CHORDS** (e.g. chords with a flattened fifth). **REPEATED CHORD PATTERNS** are also a feature of much Rock Music.

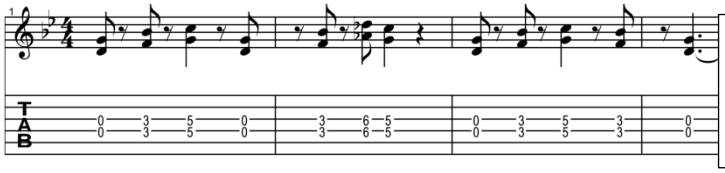
POWER CHORDS are a key feature of Rock Music – these are chords played on the guitar which do not contain the middle note – the third. The examples below show a range of **POWER CHORDS** given in both staff notation and guitar TAB.



MODULATION (changing key) became more common, particularly in the **BRIDGE SECTION**.

MELODY

The melody in Rock Songs is normally performed by the lead singer with lyrical vocal phrases featuring repeated patterns, although melodies may also be played on the lead electric guitar and most Rock Songs contain **STRONG GUITAR RIFFS** based on short sections of the main melody.



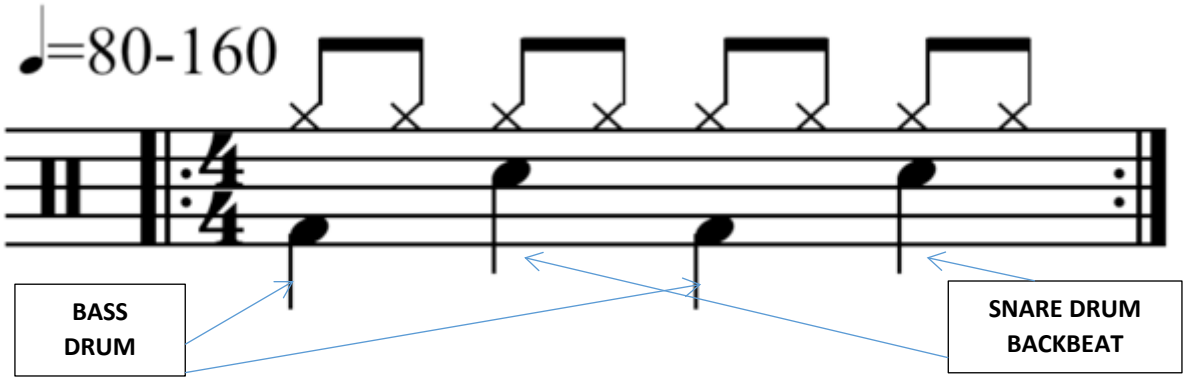
Deep Purple's "Smoke on the Water" is based on this well-known **GUITAR RIFF** *(shown left in staff notation and guitar TAB)* – note its use of rhythmic

DYNAMICS

Due to heavy amplification, Rock Songs are designed to be performed **VERY LOUDLY** *(ff – fortissimo)*

RHYTHM

Rock Songs feature **STRONG AND DRIVING RHYTHMS**, incessant drumming patterns with heavy use of the **BASS DRUM** and a **BACKBEAT** – giving emphasis on the **SNARE DRUM** on the 2nd and 4th beats of the bar as shown below.



TEXTURE

The Texture of Rock Music is mainly **HOMOPHONIC (MELODY AND ACCOMPANIMENT)** although thick **POLYPHONIC TEXTURES** are often used when singer, guitars and drums play different rhythms and melodies at the same time.

ARTICULATION – VOCAL AND INSTRUMENTAL PERFORMANCE TECHNIQUES

The majority of Rock Bands feature a male lead vocalist who sings with a *growling, raspy* and *husky*-style of singing often using very high-pitch screams who project their voice powerfully to compete with the volume of the other instruments. They often sing with **VIBRATO** but not falsetto.

Effects are added to guitars – **DISTORTION, WAH-WAH, ECHO, REVERB** and **OVERDDRIVE** and guitar **HARMONICS** and **GLISSANDOS** are often used.

ACCOMPANIMENT

The lead singer is accompaniment by a Rock Band which provide the accompanying rhythm, bass line and chords, although there are opportunities for instrumental solos.

FORM & STRUCTURE

Rock Songs continue to use the **VERSE-CHORUS STRUCTURE**, although **INTROS** are normally considerably longer than Rock 'n' Roll or Pop Ballads and often feature a **MODULATION** in the **BRIDGE** which may take the form of an extended solo instrumental improvisation (from jazz). The **CHORUS** is often the most memorable part of a Rock Song. The total length of Rock Songs became considerably longer with some songs lasting from seven to eight minutes.

INSTRUMENTATION – TIMBRE & SONORITIES

The basis of a Rock Band is a **LEAD SINGER, DRUM KIT** and a trio of guitars: **LEAD ELECTRIC GUITAR, RHYTHM GUITAR** and **BASS GUITAR**. The sound of Rock Music centres upon the **ELECTRIC GUITAR**.
To this "key line-up" almost any other instrument(s) or sounds could be added – **PIANO** or **ELECTRIC KEYBOARDS** are often used and The Beatles include such timbres as a Brass Band, String Quartet, Electric Keyboard, Sitar and recorded examples of fairground rides!

2. What are some sub-genres of Rock music?

Red | Amber | Green

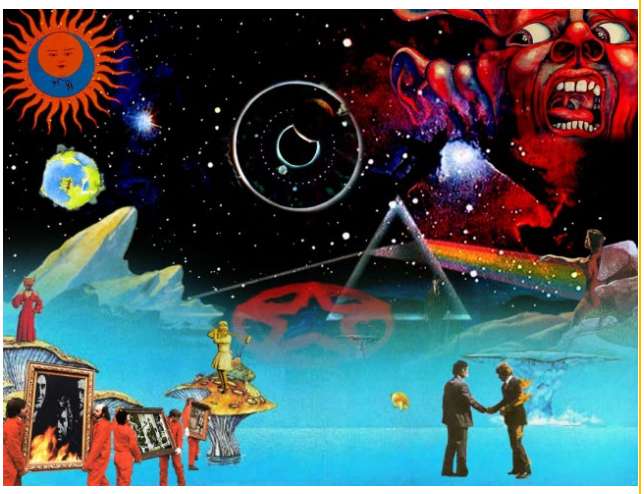
HARD ROCK Band Aerosmith *(shown left)* – note the trio of guitars – **LEAD GUITAR, RHYTHM GUITAR** and **BASS GUITAR**, together with **DRUM KIT**, lead male vocalist and amplification *(right)*.

GLAM ROCK Band Kiss *(shown right)*, again with the guitar trio – note the exaggerated outfits and make-up adding to the theatrical performance of Glam Rock songs.

PUNK ROCK Band The Sex Pistols performing live. Again, note the use of guitars and drums, amplification and the lead singer's aggressive and "shouty-style" face while singing.

<u>HEAVY METAL</u> – **HEAVILY-AMPLIFIED AND DISTORTED ELECTRIC GUITARS**. **GUITAR SOLOS**. Drums – focus on speed, power and precision. Vocalist – shouting-style of singing at high pitch with emotional performance. Lyrics often deal with dark, macabre or fantastical themes such as cyborg superheroes!

<u>PROGRESSIVE ROCK</u> – Based on experimentation, art, poetry and a high level of instrumental skill. Long songs – "concept albums" entire albums based on a single song. Influenced by jazz, folk and classical music.



3. How can I develop my instrumental/vocal skills? Red Amber Green

You may wish to begin by evaluating your skills from 1 (poor) to 5 (excellent) in the audit below:

Area	Skill	1	2	3	4	5
Techniques	• accuracy of pitch/intonation					
	• accuracy of rhythm and timing					
	• accuracy of expression and dynamics					
	• accuracy of phrasing					
	• range of notes (vocalists)					
	• breath control (vocalists)					
	• diction (vocalists)					
	• following an accompaniment					
	• learning new pieces					
	• projection					
	• musical interaction					
Interpretation	• accurate interpretation and reproduction of style					
	• awareness and communication with accompaniment in performance					
	• physical expression – body language, facial expressions					
	• communication with the audience in performance					
	• use of timing and rhythm for expression					
	• use of phrasing for expression					
	• use of dynamics for expression					
	• confidence					
	• stage presence					

Following your skills review, create some SMART targets to explain what you want to achieve with your performance skills:

S - Be **specific**. Describe and explain exactly what you want to achieve with your performance skills. Think about your technical vocabulary.
M - Make sure you can **measure** and track this target. How will you know that you are making progress?
A - Is this target **attainable** and realistic to achieve. Work towards something that is challenging but possible.
R - Is this a **relevant** target?
T - Check the **time frame** and set deadlines. Are you going to achieve this in the short or long term?

4. What does a successful practise session look like? Red Amber Green

Create a rehearsal schedule, including SMART targets. See the example below:

Instrument Rehearsal Plan

Musician's Name:
Instrument:
Date Range of Plan:

1. Goals and Objectives

Overall Goal:
What is the primary aim of this rehearsal period? (e.g., preparing for a performance, improving technical skills, mastering a particular piece)

2. Rehearsal Schedule

Date	Time	Focus Area	SMART Target	Notes
MM/DD	HH:MM	*E.g., Warm-up, scales*	*E.g., S: Practice C major scale. M: Play without mistakes for 3 minutes. A: Already know basics. R: Important for piece. T: Within this session.*	*Any additional notes*
MM/DD	HH:MM	*E.g., Piece practice*	*E.g., S: Master measures 20-40. M: Play at 80 bpm accurately. A: Challenging but manageable. R: Crucial for performance. T: By the end of the week.*	*Any additional notes*
MM/DD	HH:MM	*E.g., Technical exercises*	*E.g., S: Improve finger dexterity. M: Perform exercise without errors 5 times consecutively. A: Exercises are familiar. R: Enhances overall playing.*	*Any additional notes*
MM/DD	HH:MM	*E.g., Technical exercises*	*E.g., S: Improve finger dexterity. M: Perform exercise without errors 5 times consecutively. A: Exercises are familiar. R: Enhances overall playing.*	*Any additional notes*
MM/DD	HH:MM	*E.g., Repertoire review*	*E.g., S: Polish entire piece. M: Play through without stopping 3 times. A: Already learned notes. R: Ready for concert. T: By next rehearsal.*	*Any additional notes*

3. Warm-up Routine

Duration:
Exercises:

1. **Breathing exercises:** *E.g., Deep breathing for 2 minutes*
2. **Scales and arpeggios:** *E.g., Major and minor scales for 5 minutes*
3. **Technical drills:** *E.g., Finger exercises for 5 minutes*

5. How can I work successfully with other musicians? Red Amber Green

For your GCSE assessment, you will have to perform at least one piece of music as an ensemble. There must be between two and eight of you playing or singing, but your part cannot be doubled. You have to perform a significant part and your group cannot be conducted. You must think carefully about which musicians in the class will work well with you to create a balanced performance.

Here are some key strategies to help you and your ensemble succeed:

1. Clear Communication

- **Establish Roles:** Ensure everyone knows their role in the group, whether it's a lead player or accompanist
- **Regular Meetings:** Hold regular meetings to discuss goals, schedules, and any issues that arise.
- **Open Dialogue:** Foster an environment where members feel comfortable expressing ideas and concerns.

2. Set Clear Goals

- **Short-term Goals:** Set specific, achievable goals for each rehearsal, such as mastering a particular section of music.
- **Long-term Goals:** Have overarching objectives, such as preparing for a performance or recording a piece.

3. Effective Rehearsals

- **Structured Plan:** Have a clear rehearsal plan with allocated times for warm-ups, individual sections, and full run-throughs.
- **Punctuality:** Start and end rehearsals on time to show respect for everyone's schedule.
- **Focus on Problem Areas:** Identify and spend more time on challenging sections rather than just playing through the entire piece.

4. Develop Strong Musicianship

- **Individual Practice:** Ensure all members are practicing their parts individually outside of group rehearsals.
- **Technical Skills:** Work on improving individual technical skills and ensemble playing techniques, such as dynamics, timing, and articulation.

5. Regular Feedback

- **Constructive Criticism:** Give and receive feedback in a constructive and positive manner.
- **Self-Evaluation:** Encourage self-evaluation and group reflection after rehearsals and performances to identify areas for improvement.

6. Performance Preparation

- **Mock Performances:** Hold mock performances to simulate the conditions of the actual event and reduce performance anxiety.

- **Stage Presence:** Work on stage presence and audience interaction as part of your rehearsals.

6. How can I select appropriate repertoire for performance? Red Amber Green

The standard of pieces selected for performance should be broadly equivalent to grade 3 of the graded music examinations.

One of the pieces performed must be linked to specific aspects of musical content within **one** of the four areas of study. All students are required to perform one ensemble piece and when this is linked to area of study 2, Music for Ensemble, the piece must be related to one of the specific genres or styles covered in this area of study.

Area of study 1: Musical Forms and Devices Area of study 2: Music for Ensemble
Area of study 3: Film Music
Area of study 4: Popular Music

In **all** performances, learners will be expected to display:

- technical control
- expression and appropriate interpretation
- accuracy of rhythm and pitch
- appropriate pace and fluency
- effective use of dynamics
- stylistic awareness
- empathy (in ensemble playing).

7. What are the two main types of musical scale? Red Amber Green

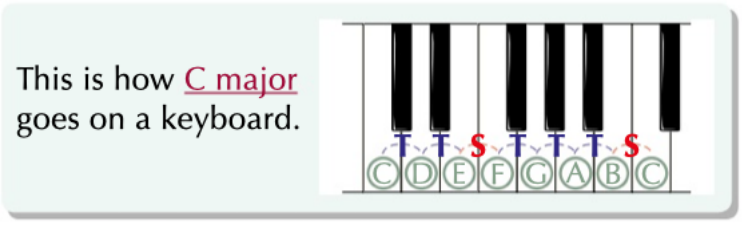
There are two main types of scale – **major** and **minor**.

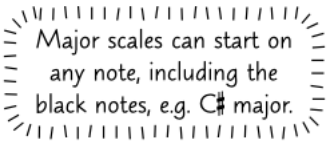
A **major scale** is a series of seven notes arranged in a specific pattern of tones and semitones. It is one of the most common and fundamental scales in Western music, known for its bright and happy sound.

Pattern of the Major Scale

The formula for a major scale follows this pattern of **tone (T) and semitone (S):**

T - T - S - T - T - T - S





A **minor scale** is a sequence of seven notes that creates a darker, sadder, or more melancholic sound compared to a major scale. There are three main types of minor scales: **natural minor, harmonic minor, and melodic minor**.

1. Natural Minor Scale

The **natural minor scale** follows this pattern of **tone (T) and semitone (S):**

T - S - T - T - S - T – T

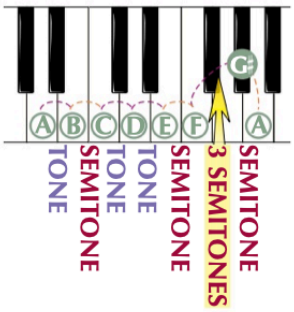
These are easy. Start from the sixth note of any major scale. Carry on up to the same note an octave higher. You're playing a natural minor scale.

The sixth note of C major is A. If you play from A to A using the notes of C major, you're playing A natural minor (usually just called 'A minor').

Pairs of keys like A minor and C major are called "relative" keys.
A minor is the relative minor of C major.
C major is the relative major of A minor.

2. Harmonic Minor Scale

The **harmonic minor scale** is the same as the natural minor, except the **7th note is raised by a half step**. This creates a stronger resolution to the tonic.



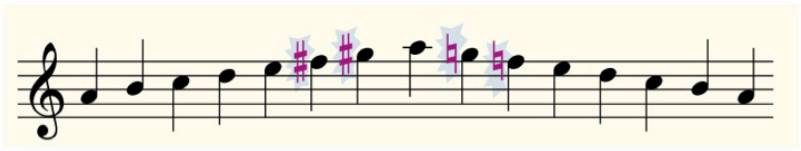
1) The harmonic minor has the same notes as the relative major, except for the seventh note.
2) The seventh note is always raised by one semitone.
3) You use the harmonic minor when you're writing harmonies. That sharpened seventh note makes the harmonies work much better than they would with notes from a natural minor. It's probably because it feels like it wants to move up to the tonic.

3. Melodic Minor Scale

The **melodic minor scale** is a hybrid:

- **Ascending:** The **6th and 7th notes are raised** (making it sound closer to a major scale).
- **Descending:** It returns to the natural minor form.

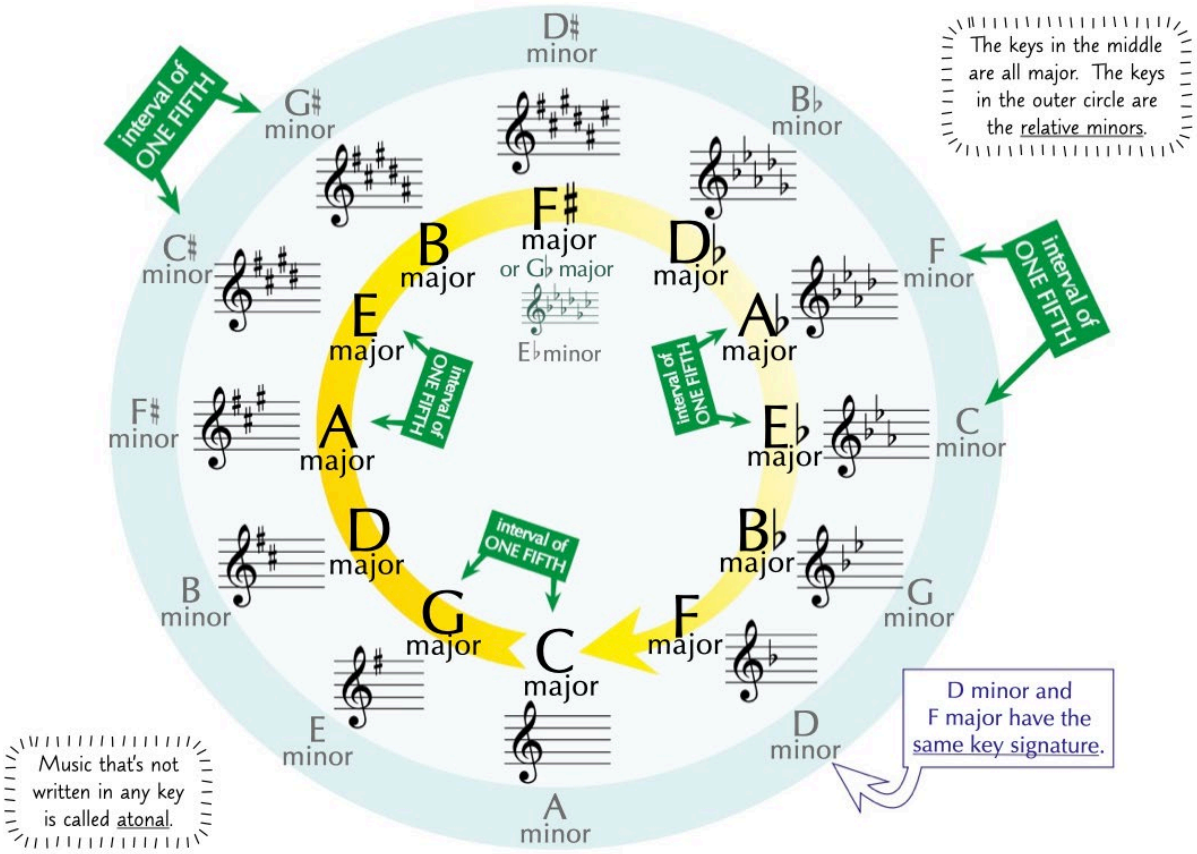
1) The melodic minor is just like a natural minor, using the notes from the relative major scale, except for notes 6 and 7.
2) On the way up, notes 6 and 7 are each raised by one semitone.
3) On the way down, the melodic minor goes just like the natural minor.



4) The melodic minor is used for writing melodies. The accidental on note 6 makes tunes sound smoother by avoiding the big jump between notes 6 and 7 in the harmonic minor.

8. How do major and minor keys relate to each other? Red Amber Green

The *Circle of Fifths* looks complicated but it tells you all the keys, the relative keys and their key signatures:



HOME LEARNING TASKS	
Task Description	**Done?**
Pop Music Workbook – Exercises 1 and 2	
Pop Music Workbook – Exercise 3	
Pop Music Workbook – Exercise 4	
Pop Music Workbook – Exercise 5	
Pop Music Workbook – Exercise 6	
Pop Music Workbook – Exercise 7	

Knowledge Organiser

Spanish
Year 9
Term 4
2024/25

The Abbey School

Spanish Year 9 Term 4 – My town

Term Focus – This term introduces you to talking about where you live. You will be able to:

- Talk about the city Medellín in Colombia
- Give your opinion about the city
- Talk about what Medellín was like in the past
- Talk about shopping and your preferences
- Say which issues with clothes one can face in shopping

Prior Learning Links

- Where I live (Year 7)
- Conditional tense (Year 8 T1 Year 9)
- Giving opinions (Year 7, 8 & T1 Year 9)
- Past tense (Year 7, 8 & T1 Year 9)
- Comparatives (Year 8)

Future Learning Links

- Environmental issues topic
- Holidays topic
- Giving complex opinions
- Using *ser* and *estar*
- Conditional tense

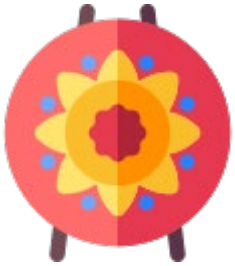


Image: Flaticon.com

1. How do I describe the city Medellín?

Red | Amber | Green

¿Cómo es Medellín? (What is Medellín like?)

Medellín es una ciudad muy inteligente.

En Medellín (In Medellin)	**hay** (there is/there are)	**un castillo enorme** (a huge castle) **una calle pequeña** (a small street) **un espacio público** (a public space)	**un parque agradable** (a nice park) **un àrbol** (a tree) **un barrio limpio** (a clean neighbourhood) **una tienda grande** (a big shop)	**un paisaje espectacular** (a spectacular landscape) **una vista bonita** (a pretty view) **una montaña alta** (a high mountain)	**en el centro** (in the centre) **cerca del centro** (close to the centre)
Medellín	**tiene** (has)	**muchos castillos** (lots of castles) **muchas calles** (lots of streets) **muchos espacios** (lots of spaces)	**muchos parques** (lots of parks) **muchos árboles** (lots of trees) **muchos barrios** (lots of neighbourhoods) **muchas tiendas** (lots of shops)	**muchas zonas** (lots of zones) **muchas bibliotecas** (lots of libraries)	

2. How do you use the imperfect tense?

Red | Amber | Green

- The **Imperfect tense** is used when saying what places were like or what they '**used to be**' like
- The **Imperfect tense** is also used to say what someone '**used to do**'
- There are two sets of endings, one for –ar verbs and one for –er and ir verbs.
- To form this tense, take off the last two letters of the infinitive and add the following endings.

Take off –ar, -er, -ir of **the infinitive**				
	-ar verbs **hablar**	-er verbs **comer**	-ir verbs **vivir**	**Irregular verbs** (have the different forms)

				Ser (to be)	Ir (to go)	Ver (to see)
yo	hablaba	comía	vivía	era	iba	veía
tú	hablabas	comías	vivías	eras	ibas	veías
Él/elle	hablaba	comía	vivía	era	iba	veía
nosotros/a	hablábamos	comíamos	vivíamos	éramos	íbamos	veíamos
vosotros/a	hablabais	comías	vivíais	erais	ibais	veíais
Ellos/ellas	hablaban	comían	vivían	eran	iban	veían

3. How do I compare Medellín now with what it used to be like?

Red | Amber | Green

¿Cómo era Medellín en el pasado? (What was Medellin in the past?)					
Antes (Before)	**había** (there was/there were)	**mucha/tanta basura** (lots of/so much rubbish) **menos edificios modernos** (fewer modern buildings) **muchas bibliotecas** (lots of libraries)	**y** (and)	**era** (was)	**más pequeño/a** (smaller) **más tranquilo/a** (quieter) **menos moderno/a** (less modern) **más peligroso/a** (more dangerous)
¿Cómo es Medellín ahora? (What is Medellin like now?)					
Ahora (Now)	**hay** (there is/there are) **tiene** (it has)	**más árboles** (more trees) **menos violencia** (less violence) **tanta cultura** (so much culture) **tanto arte** (so much art)	**y** (and)	**está** (is) **no está** (isn't)	**limpio/a** (clean) **sucio/a** (dirty)
Present	**Ahora Medellín está limpia y hay más árboles. Además, su transporte es más sostenible.**				
Imperfect	**Antes Medellín era una ciudad más industrial y menos moderna. Además, los niños de la calle sufrían mucho.**				

4. How do you use quantifiers?

Red | Amber | Green

Tan is used in front of an adjective.

Tanto/a(s) is used in front of a noun. They need to agree in feminine/masculine and singular/plural with the noun.

Bastante is used in front of the adjectives. **Bastantes** is used in front of nous an adjective and it has the same ending for both genders.

Tan (so)		Tanto	Tanta	Tantos	Tantas
Tan barato (so cheap) **Tan caro** (so expensive)	**Tan barata** (so cheap) **Tan caro** (so expensive)	**tantos edificios** (so many buildings)	**tanta cultura** (so much culture)	**tantos problemas** (so many problems)	**tantas zonas** (so many zonas)

Bastante (quite)		bastantes (enough)	
bastante bueno **bastante moderno**	**bastante buena** **bastante moderna**	**bastantes calles** (enough streets)	**bastantes parques** (enough parks)

5. What is a demonstrative adjective? Red Amber Green

Demonstrative adjectives are used to indicate a particular thing: 'this'…,'that…over there'.
In English, you use '**this**'/'**these**' and '**that**'/**those**' to distinguish between things that are near you (here) and away from you (there).
Spanish has three categories:

- near you (here)
- away from you or near the person you are talking to (there)
- further away (over there)
-

	SINGULAR		PLURAL	
	masculine	**feminine**	**masculine**	**feminine**
this/these	**este edificios**	**esta calle**	**estos edificios**	**estas calles**
that/those	**ese espacio**	**esa carretera**	**esos espacios**	**esas carreteras**
that/those over there	**aquel barrio**	**aquella zona**	**aquellos barrios**	**aquellas zonas**

6. How do you make negative sentences? Red Amber Green

- Make sentences negative by adding '***no***' before the verb
- More specific negatives make a verb 'sandwich', with '***no***' going before the verb and the rest of the negative expression after the verb.
- Note that the articles are not used with the negatives

No… nada	Nothing/not… anything/not…at all
No… nadie	No one/not… anyone
No… ni… ni…	Neither… nor…. Not….either … or
No … ningún/ninguna	Not one/not any/not a single
No… nunca	Never/not… ever

7. What WOW phrases can I use to introduce my opinions? Red Amber Green

You opinion		Someone else's opinion	
Me parece que (It seems to me)	**Por un lado,** (On the one hand,)	**Mi amigo dice que** (My friend says that)	**Mis padres dicen que** (My parents say that)

8. What do you buy in a shop? Red Amber Green

¿Qué compras? (What do you buy?)			
Yo compro (I buy)	**estos pantalones grises y verdes** (these grey and green trousers) **esa corbata amarilla** (this yellow tie) **aquellos calcentines negro y rosas** (those black and pink socks over there)	**este sombrero rojo** (that red hat) **aquella falda azul** (that blue skirt over there) **estas zapatillas de deporte blancas** (those white trainers)	**para el compleaños de mi hermano/hermana** (for my brother's/sister's birthday).

9. How do you form the preterite tense? Red Amber Green

Verbs in the preterite tenses refer to **completed actions** in the **past.**

Subject		Comprar (to buy)	Devolver (to return)
I	Yo	-é compré	-í devolví
You	Tú	-aste compraste	-iste devolviste
He She	Él Ella	-ó compró	-ió devolvió
We	Nosotros Nosotras	-amos compramos	-imos devolvimos
You (pl)	Vosotros Vosotras	-ásteis comprásteis	-isteis devolvisteis
They	Ellos Ellas	-aron compraron	-ieron devolvieron

Steps:

Step 1: Find the infinitive

Step 2: Remove the –AR -ER -IR

Step 3: Add the endings from the correct

Irregular verbs:

Ir (to go)**: fui** (I went) **fuimos** (we went)

Hacer (to do): **hice** (I did) **hicimos** (we did)

Tener (to have): **tuve** (I had) **tuvimos** (we had)

Estar (to be -location): **estuve** (I was)

10. Where do you love going shopping? Red Amber Green

¿Adónde prefieres ir de compras? (Where do you prefer to go shopping?)

(No) Suelo (I usually buy)	**ir a las tiendas de mi barrio** (go to the shop in my neighbourhood) **comprar ropa por Internet** (buy on the Internet)	**porque** (because) **dado que** (given that)	**es** (is) **son** (are)	**bastante barata/o(s).** (quite cheap) **demasiado cara/o(s)** (too expensive)
(No) Solemos (we usually buy)	**comprar ropa de segunda mano** (buy secondhand clothes) **ir al centro comercial** (to shopping centre)	**porque** (because) **dado que** (given that)	**hay tanta gente.** (there are too many people) **(no) se puede probar la ropa.** (you can/can't try on the clothes) **los precios son más bajos.** (prices are lower) **(no) tengo que hacer cola.** (I (don't) have to queue)	

11. How to express what we usually do something? Red Amber Green

- To say what you **tend to** do or **usually** do, you can use **soler** + infinitive.
- **Soler** is a stem –changing verb.

For example: **Suelo** ir de compras.

(I tend to/usually go shopping).

Soler (I tend/usually)		
(yo)	s**ue**lo	I tend to
(tú)	s**ue**les	You tend to
(él/ella)	s**ue**lo	He/she tends to
Nosotros/as	solemos	We tend to
Vosotros/as	soleís	You (pl) tend to
Ellos/ellas	s**ue**len	They(m)/they(f) tend to

12. Which issues do you have in a shop? Red Amber Green

¿Qué es el problema? (What is the problem?)			
Ayer/hace une semana compré… (Yesterday/A week ago I bought…)			
Quiero devolver/cambiar… (I want to return/exchange…)	**este jersey** (this jumper) **esta camisa** (this shirt) **esta corbata** (this tie) **estos pantalones** (these trousers) **este vestido** (this dress) **esta camiseta** (this T-shirt) **esta falda** (this skirt) **estos zapatos** (these shoes)	**porque es/son** (because it is/ they are)	**demasiado pequeño/a(s)** (too small) **bastante largo/a(s)** (quite long) **demasiado ajustado/a(s)** (too tight) **bastante grande(s)** (quite big) **de mala calidad** (poor quality)

HOME LEARNING TASKS	
Task Description	**Done?**
Can you write a short paragraph describing Medellin?	
Can you write sentences using identifiers correctly?	
Can you write a short paragraph saying you are going for a trip to Medellin?	
Can you write a short paragraph using demonstrative and indefinite adjectives?	
Can you write a short paragraph talking about which clothes and of which colour you buy in a shop?	
Can you write a short paragraph talking about the problems you face in a shop?	
Can you use the sentence builders above to write sentences answering the questions? Can you improve these by adding conjunctions and intensifiers?	
Practise the vocabulary in your knowledge organiser by using the look, cover, write, check method.	
Go to www.sentencebuilders.com and practise this term's vocabulary.	