



Knowledge Organisers

Year 8

Autumn Half Term 2

‘Practice of what is taught’

Name:

Tutor:

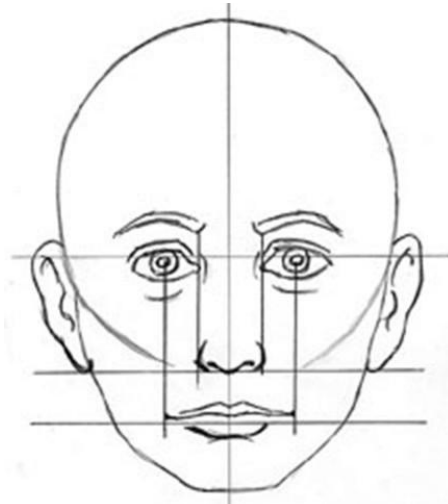
House:

Art

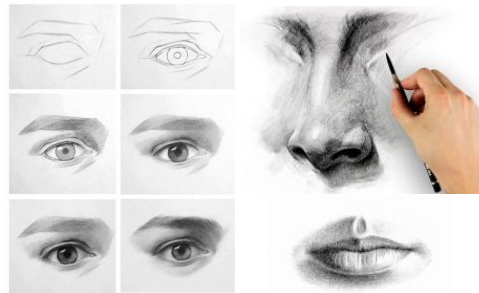
Year 8 - Portraits

Key knowledge & skills

Drawing a realistic self portrait , building on what you know about drawing from observation. **Recording shapes** with accuracy. Drawing lightly so you can **adjust and refine**. **Measuring** as you draw to achieve accurate proportion. **Noticing** details, including using **mark-making** to show different surface textures. Using a range of **light, medium and dark tones** to show how light shines on the face and where light cannot reach.

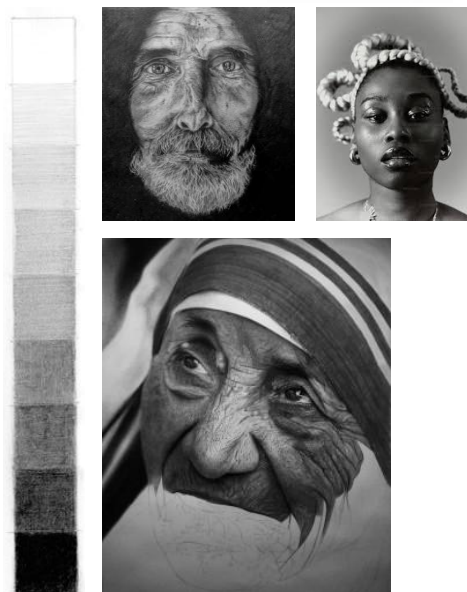


Develop your skills in **drawing features**. **Learn how to draw eyes, noses and mouths with accuracy** and how to position them into a drawing of the whole face. You will learn how to use **tone** to help shape these features and **mark making** to show **textures**.



Understanding portraiture Art. In this project, you will learn about the role and purpose of portrait art. You will find out Portrait Art by studying a range of artists.

Your final outcome will be an **accurate A3 portrait**.



Key Artists



Kehinde Wiley

An American artist who often mimics the 'Old Masters' in his paintings. He blurs the boundaries between **traditional** and **contemporary** portraits. He was **commissioned** by Barak Obama to paint his presidential portrait. He uses foliage and flowers that are connected to the former president's life.



Ron Mueck

An Australian born artist who creates highly realistic looking **sculptures**. He plays around with **scale**, often creating **figures and faces** that are extremely oversized



Kelvin Okafar

A British **photorealist** artist who works in pencil. He studied in Middlesex and during Covid he set up online drawing classes to share his drawing methods with others.



Frida Kahlo

A Mexican artist who was injured badly at a young age and used art as a therapy to help her recovery. She painted many realistic **self-portraits** which were filled with elements of **symbolism**.

Key Terms

PORTRAIT: A painting, drawing, photograph, or engraving of a person, especially one depicting only the face or head and shoulders.



REALISM: Realism is art that is designed to faithfully copy the real world - with accurate recording of shape proportion and detail.



Computing Knowledge Organiser Year 8



The Castle School
ACHIEVE | BELONG | PARTICIPATE

Topic: Representations

Rationale: This unit conveys essential knowledge relating to binary representations, introducing binary digits and how they can be used to represent text and numbers.

Representation

Just as letters in the alphabet can be used to represent words, sequences of binary digits are also used to represent information in digital systems

10110111

Binary Digits

Binary digits are known as bits. They are a base-2 number system and are represented by 0 and 1. They are the smallest unit of measurement for data representation.

In **denary (decimal)**, we use a base-10 number system, so we have ones, tens, hundreds, thousands, etc. 27, 36, 104 are examples

Binary to Denary

128	64	32	16	8	4	2	1
0	1	0	0	0	1	1	0

The binary number above would be worked out as a denary number by seeing which weightings have been "switched on" (have a 1). So, we only add up the numbers that have a 1.

In this case: $64 + 4 + 2 = 70$
Therefore, 0100 0110 in binary is 70 in denary.

Binary Sequences

All information is represented in sequences of binary digits. This includes:

- Numbers
- Text
- Sound
- Images
- Video
- Animation

Units

Prefix	Symbol	Meaning
kilo	K	Thousands
mega	M	Millions
giga	G	Billions
tera	T	Trillions

ASCII

ASCII (American Standard Code for Information Interchange) is the most common character encoding format for text data in computers and on the internet.



Key Words

Binary	A number system based only on the numerals 0 and 1
Denary	Humans tend to use the denary number system or decimal. This is the base 10 system that you are familiar with
Conversion	The way in which numbers can be converted from one numbers system to the other. For example, from Binary to Denary or vice versa.
Units	All data is stored in computers using 1s and 0s (bits). We explain how much data we are storing by using terms like kilobytes.

DT

Homework 1 - Who is Margaret Calvert, what is she famous for?



Margaret Calvert and the road signs that changed the UK

Have you ever looked at a road sign and thought about who designed it? Most people don't. But behind the signs that help us drive safely and find our way is a very clever woman named **Margaret Calvert**.

Margaret Calvert was born in South Africa in 1936, but she moved to England when she was young. She studied art and design, and she loved making things that were both beautiful and useful. In the 1950s, she started working with a man named **Jock Kinneir**, and together they were given a very big job: to redesign all the road signs in the United Kingdom.

Back then, road signs were confusing. They used too many words, different styles, and were hard to read quickly—especially if you were driving fast. The government wanted signs that were clear, simple, and easy to understand for everyone, even if they didn't speak English very well.

Margaret and Jock came up with a new system. They used **symbols** instead of long words, and they created a special **typeface** (a style of letters) called **Transport**. This typeface was designed to be easy to read from far away and at high speeds. It's still used on road signs in the UK today!

One of Margaret's most famous signs is the **school crossing sign**. It shows two children holding hands and walking. What's really cool is that the girl in the picture was based on Margaret herself when she was a child! She also designed the **"men at work"** sign, which shows a man digging. These signs are simple, but they tell drivers exactly what they need to know.

Margaret believed that design should help people. She didn't want to make things just to look nice—she wanted them to be useful. Her work made roads safer and helped millions of people travel more easily.

Even though she did this work many years ago, Margaret Calvert is still respected today. She has won awards and even had her name added to road signs as a fun tribute. In 2020, a special art exhibition celebrated her work, showing how important design is in everyday life. Thanks to Margaret Calvert, the UK has some of the clearest and most helpful road signs in the world. So next time you're in a car or walking down the street, take a look at the signs around you. You might just see a little piece of history—and a lot of smart design—thanks to Margaret. **Watch - Margaret Calvert: It's about knowing who you are designing for – YouTube (5 mins 15)**

Homework 2 - Chisels and how to use them safely

Chisels are tools used to cut, shape, or carve wood, metal, or stone. In a workshop, they're super helpful for making furniture or even fixing things. They can also be dangerous if not used properly, so it's important to learn how to use them safely.

Types of Chisels

Here are some common types of chisels you might find in a workshop:

1. **Bevel-Edge Chisel**

This is the most common type of chisel. It has slanted edges, which makes it great for getting into tight corners. It's perfect for woodworking.

2. **Mortise Chisel**

This chisel is thick and strong. It's used to make deep square holes called mortises, which are used in joints for furniture.

3. **Paring Chisel**

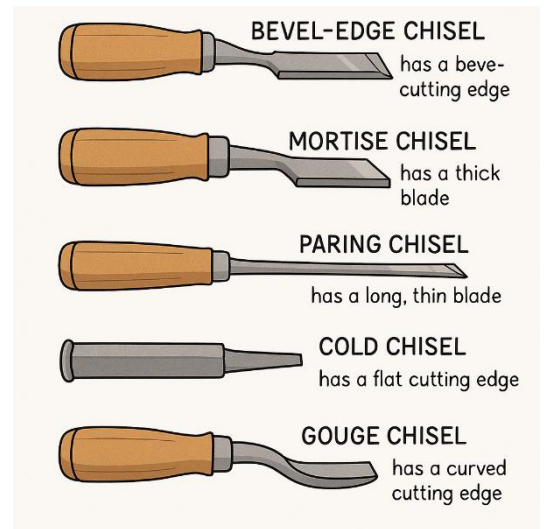
This one is long and thin. It's used for shaving off thin slices of wood to make things smooth. You use it with your hands, not a hammer.

4. **Cold Chisel**

This chisel is made of metal and is used for cutting other metals. You usually hit it with a hammer.

5. **Gouge Chisel**

This chisel has a curved blade. It's used for carving rounded shapes, like in sculptures or bowls.



How to Use a Chisel Safely

Using a chisel the right way keeps you safe and helps your project turn out better. Here are some important safety tips:

- **Always wear safety goggles** to protect your eyes from flying chips.
- **Use a sharp chisel.** Blunt chisels are more dangerous because they slip more easily.
- **Cut away from your body.** Never point the chisel toward yourself.
- **Use a mallet, not a metal hammer,** for wood chisels. A mallet gives better control and won't damage the chisel.
- **Clamp your work.** Make sure the wood or material you're working on is held tightly so it doesn't move.
- **Keep your hands behind the blade.** This helps avoid cuts if the chisel slips.

Why Chisels Are Cool

Chisels have been used for thousands of years! Ancient Egyptians used them to carve stone for pyramids. Today, people still use them to make beautiful things out of wood and metal. Whether you're building a birdhouse or carving a wooden spoon, chisels help turn your ideas into real objects.

English – Sparx Reader

You should log onto Sparx Reader and spend 30 minutes reading your current book that is assigned to you. You can either do this in one sitting or spread the reading out over the week.

Reading Articles

You will have a reading article each week linking to the whole school theme for that week:

Week 1: Remembrance

Week 2: Kindness

Week 3: Resilience

Week 4: Equality

Week 5: Gratitude

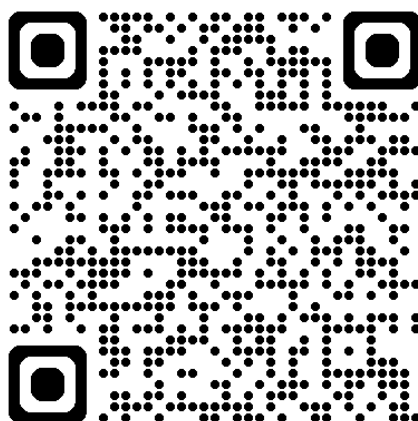
Week 6: Celebration

Read the article and highlight three words of which you were not sure. Then write the definition and draw an image which will help you remember.

As you read the articles, you will identify that the articles are not in UK English. However, the articles offer some great messages.

Use this QR code to access the reading articles read by a teacher or visit the link:

<https://www.castleschool.co.uk/parents/homework.htm>



Food

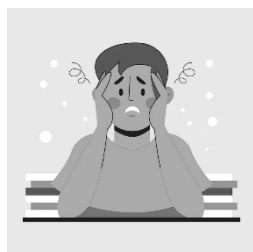
What Does Fibre Do in the Body?

Fibre is essential for keeping your digestive system working properly. When you eat fibre-rich foods, they help move food through your gut, making it easier to go to the toilet regularly. This prevents constipation and bloating. Some types of fibre also feed the good bacteria in your gut, which helps your body fight off illness and absorb nutrients better. These bacteria produce substances that reduce inflammation and support your immune system.

Soluble fibre helps slow down digestion, which keeps you feeling full for longer and helps control your blood sugar levels. It also helps lower cholesterol, which protects your heart. Insoluble fibre adds bulk to your stool and helps food move through your digestive system more quickly. Both types are important for keeping your body healthy and balanced.

Why Is Fibre Important for Teenagers?

During your teenage years, your body is growing quickly and needs lots of nutrients to stay strong and healthy. Fibre helps your body absorb these nutrients properly and keeps your gut working well. It also helps you stay focused and energised, which is important for learning, sports, and other activities.



Not getting enough fibre can lead to problems like constipation, tiredness, and poor concentration. Over time, a low-fibre diet can increase your risk of serious health problems like heart disease, type 2 diabetes, and bowel cancer. That's why it's important to eat a variety of fibre-rich foods every day. In the UK, teenagers aged 11–16 should aim for **25 grams of fibre per day**, but most young people eat much less than that.

Good Sources of Fibre

There are many tasty and easy ways to get more fibre into your diet. Whole grains are one of the best sources. Foods like wholemeal bread, brown rice, wholegrain pasta, and oats are packed with fibre and can be swapped in for white versions. Breakfast cereals such as Weetabix, Shreddies, and porridge are great choices too.

Fruits and vegetables are also excellent sources of fibre. Apples, pears, bananas, carrots, peas, and sweetcorn all contain fibre—especially if you eat the skin. Beans and pulses like lentils, chickpeas, and baked beans are full of fibre and can be added to soups, stews, or salads. Nuts and seeds, such as almonds, peanuts, and chia seeds, are also high in fibre and make great snacks.

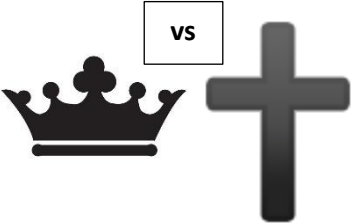
To get enough fibre, try to include a mix of these foods in your meals and snacks throughout the day. For example, you could have wholemeal toast with peanut butter for breakfast, a jacket potato with baked beans for lunch, and a vegetable stir-fry with brown rice for dinner. Adding fruit or nuts to your snacks will also help you reach your daily fibre goal.

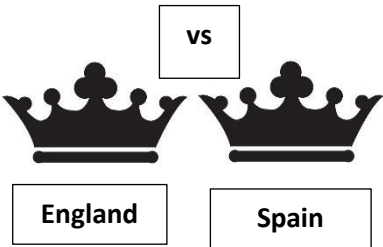




Week 2 – China	Week 4 – End of Asia topic, start of Hazards	Week 6 – Plate boundaries and volcanoes
By the year 2050, it's expected that another 2.5 billion people will be living in cities around the world. That means nearly two-thirds of everyone on Earth will live in urban areas—places with lots of buildings, homes, and businesses. In contrast, rural areas are parts of the countryside with fewer people and more open space. Many people move from rural to urban areas in a process called migration, often to find better jobs and living conditions. In China, cities usually offer a higher quality of life and more job opportunities than the countryside, so many people are choosing to move to urban areas. Over the past 20 years, China's economy has grown very fast, becoming the second largest in the world after the USA. One way to measure a country's economy is by looking at its Gross Domestic Product (GDP), which is the total value of everything it produces in a year. China's GDP has grown by nearly 10% each year on average. To support this growth, China has been building lots of infrastructure—things like roads, railways, and water systems that help a country run smoothly. One big project is the Belt and Road Initiative, a multibillion-dollar plan to build transport links across Asia, Africa, and Europe to make trade easier and faster.	Globalisation is the process of making the world more connected. It means goods, people, and ideas move more easily between countries through trade, migration, and tourism. Asia plays a big role in globalisation because it makes more goods than any other continent and has many of the world's busiest ports. This gives Asia strong trade links with countries around the world. Some countries, known as BRICS—Brazil, Russia, India, China, and South Africa—are growing quickly and becoming more powerful in the global economy. Together, they have over 3.6 billion people, about 41% of the world's population, and their combined GDP (the value of everything they produce) is around 22% of the world's total. In 2024, Egypt, Ethiopia, Iran, Saudi Arabia, and the United Arab Emirates (UAE) also joined BRICS. The Earth is about 4.6 billion years old and has different layers. The crust is the rocky outer layer where we live. Beneath that is the mantle, made of hot, molten rock. At the centre is the core, made of iron and nickel. The inner core is solid, while the outer core is liquid. The crust is split into tectonic plates, which move slowly and can cause earthquakes and volcanoes. There are two types of crust: continental crust, which forms land, and oceanic crust, which lies under oceans.	Millions of years ago, all the continents we know today were joined together in one giant landmass called Pangaea. This supercontinent existed from about 280 to 230 million years ago & included North America, Africa, South America, & Europe. A scientist named Alfred Wegener came up with the theory of continental drift. He said the Earth's surface is made of large pieces called tectonic plates, and these plates move slowly. Where plates move apart, new crust forms—this is a constructive plate boundary. Where plates move toward each other, one sinks under the other in a process called subduction—a destructive boundary. If plates slide past each other, it's a conservative boundary & if they crash & crumple, it's a collision boundary, which forms mountains. Most earthquakes and volcanoes happen at the edges of these plates, especially around the Pacific Ring of Fire. Some, like those in Hawaii, happen away from plate edges. Volcanoes can be active, dormant, or extinct, depending on how recently they've erupted. There are different types of lava—a a'a lava is thick and chunky, while pahoehoe lava is thin and runny. Composite volcanoes explode violently and have layers of lava and ash. Shield volcanoes, like Mauna Loa, are huge and made only of lava, but erupt gently.

History: What was the most significant challenge faced by the Tudor monarchy 1509-1603?

Component	Core knowledge (that you NEED to know)	Key vocab (that you NEED to know and use)
Week 1: Why was marriage a challenge during Elizabeth's reign? 	Many of Elizabeth's advisors suggested that Elizabeth should get married and let a man rule the kingdom. Elizabeth did not support this. <u>Advantages of marriage:</u> It would stop in-fighting amongst English men at Court; there would be a chance for an heir. <u>Disadvantages of marriage:</u> Many of the suitors were Spanish or French and this would mean England would be ruled by a foreign king who would take Elizabeth's power. This would cause religious divisions as France and Spain are Catholic countries. <u>Four examples of suitors:</u> King Philip of Spain, Duke Francis of Alencon (France), Robert Dudley Earl of Leicester, William Prince of Orange (Netherlands)	Suitor- a potential husband Patronage- Giving support to someone e.g. money or land. The Court- About 1000 people who Elizabeth surrounded herself with, including advisors, friends, diplomats and entertainers.
Week 3: How much of a challenge were English Catholics to Elizabeth's power? 	Spain and France hated Elizabeth as she was a Protestant and England was growing in power. Elizabeth also had English Catholic opponents within England who disagreed with the way she treated Catholics. These English Catholics wanted to force a return to the Roman Catholic religion and believed that the Pope was Head of the Church, not Elizabeth. Opposition grew as Elizabeth grew older. She relied on her spymaster, Francis Walsingham, to stop plots and find and punish traitors. This included Catholic plotters who planned to kill Elizabeth and replace her with a Catholic. Elizabeth brought in harsh new laws against Catholics, for example, the 1585 Act Against Priests. This led to some Catholics adding 'priest holes' or secret hideaways to some rich Catholic houses. This was because it was now punishable by death to be a Catholic priest in England or to help one! Edmund Campion was one such priest tortured and executed. The biggest threat to Elizabeth from English Catholics came about because of Mary Queen of Scots. Mary Queen of Scots was Elizabeth's cousin, who was a strong Catholic. She was the heir to Elizabeth's throne, because Elizabeth had no children of her own. Catholic Plotters wanted to kill Elizabeth and put Mary in power. An example of one plot to replace Elizabeth with Mary as queen was the Babington Plot in 1586. Up until this point Walsingham had not been able to directly link Mary to any of the many plots	Plot- A plan to kill Elizabeth Treason- Going against the king or queen Heresy- Going against the official religion

	against Elizabeth. This plot was different! Elizabeth executed Mary Queen of Scots despite being her cousin.	
Week 5 . How successfully did Elizabeth deal with the Challenge from Spain? 	In 1588 the war with Spain reached its climax. King Philip of Spain had had enough of Elizabeth because: England was Protestant and Spain was Catholic. England was growing in power and Spain was worried. England helped Protestant rebels in the Netherlands, who were fighting Spain. Elizabeth allowed people like Francis Drake to sink Spanish ships and steal their cargo- this was called Privateering. Philip was angry that Elizabeth had killed Mary Queen of Scots. In 1588 Philip sent a huge invasion fleet to attack England. It failed mostly because there were terrible storms. After 1588 Elizabeth grew in popularity again: • She had defeated Spain, the world's most powerful country • England's navy was seen as the best in the world • Elizabeth was keen to build an Empire, like Spain's However: • She didn't pay her sailors which was unpopular • The war carried on. It was expensive and no one won • Her popularity dipped again when there were bad harvests in the 1590s.	Empire- Many lands/countries controlled by one country Armada- A large fleet of ships Prestige- Being admired and loved Privateering- Raiding Spanish ships and stealing their treasure
Week 5. How much of a challenge was Parliament and Money during Elizabeths' reign? 	Elizabeth used politics to strengthen her power. She mostly used: • Her government. These were close advisors who ran areas of the country. Examples of these were Francis Walsingham and Robert Cecil. She promoted those who were loyal to her. They advised her but could not tell her what to do. • Her parliament. Like today, it had the House of Commons and House of Lords. She told parliament what they could discuss and she had the final say before passing any laws. Topics such as Elizabeth's personal life, religion and war were eventually banned from Parliament by Elizabeth because she did not want to discuss them. Both parliament and the government sometimes disagreed with Elizabeth. But she could ignore them using her power to veto (ignore Parliament's decision) any law they suggested making. To reward loyalty, Elizabeth gave out land, titles and monopolies.	Monopolies – A tax on goods, for example wine, which was given to people Elizabeth liked. Parliament- A group of politicians who discuss and pass laws. Government- A group of politicians who advise the queen.

Languages – French

Tu as passé de bonnes vacances? Did you have a good holiday? (Perfect tense – negatives)

Malheureusement... <i>Unfortunately...</i>	...je n'ai pas <i>I have not</i>	...joué <i>played</i>	...en ligne <i>online</i>
	...je n'ai jamais <i>I have never</i>	...nagé <i>swam</i>	...dans la mer <i>in the sea</i>
	...je n'ai guère <i>I have hardly</i>	...acheté <i>bought</i>	... de souvenirs <i>souvenirs</i>
	...nous n'avons pas <i>we have not</i>	...visité <i>visited</i>	...le musée <i>the museum</i>
		...pris <i>took</i>	... de photos <i>photos</i>
	...je ne suis pas <i>I</i> ...je ne suis jamais <i>I never</i> ...je ne suis guère <i>I hardly</i>	...allé (e)(s) <i>went</i>	...au parc d'attractions <i>to the theme park</i> ...à la piscine <i>to the swimming pool</i>
	...nous ne sommes pas <i>We are not</i> ...nous ne sommes jamais <i>we never</i>		

car... because	le [Wifi/musée/parc d'attractions] <i>the [wifi / museum / theme park]</i>	était <i>was</i>	nul(le)(s) <i>rubbish</i> propre(s) <i>clean</i> sale(s) <i>dirty</i> fermé(e)(s) <i>closed</i>
	la [piscine/mer] <i>the [swimming pool/ sea]</i>		
	les [magasins] <i>the [shops]</i>	étaient <i>were</i>	

Quel désastre! What a disaster! (2) (Perfect tense – verbs taking être & avoir)

Avoir / être verb	Past participle	Details
J'ai <i>I</i> Nous avons <i>We</i>	...perdu <i>lost</i>	mon porte-monnaie <i>my wallet</i>
	...oublié <i>forgot</i>	mon passeport <i>my passport</i>
	...cassé <i>broke</i>	mon portable <i>my phone</i>
	...raté <i>missed</i>	l'avion <i>the plane</i> le bus <i>the bus</i> le train <i>the train</i>
Je suis <i>I</i> Nous sommes <i>We</i>	...arrivé (e)(s) <i>went</i> ...tombé(e) (s) <i>fell</i>	en retard <i>late</i> à la plage <i>at the beach</i>

Les vacances d'hiver normalement / l'année dernière (present & perfect Tenses) Christmas holidays normally / last year

Pendant les vacances d'hiver... <i>During the Christmas holidays...</i> Normalement <i>Normally</i> D'habitude <i>Usually</i>	Je / nous I / we	...vais / allons go	...à + city / town tochez mon oncle / ma tante / mes grands-parents <i>at the house of my uncle's/aunt's/grandparents'...</i> à la campagne / montagne <i>to the countryside / mountains</i>
		...fais/faisons do	du sport <i>some sport</i> de la cuisine <i>some cooking</i> des randonnées <i>some walks</i>
		...voyage / voyageons travel	en voiture <i>by car</i>
		mange / mangeons eat	de la dinde rôtie some roast turkey
		regarde / regardons watch	...la télé the television
L'année dernière Last year	Je suis / nous sommes I / we	allé(e)(s) went	...à + city / town to ...
		arrivé(e)(s) arrived	...le matin / l'après-midi / le soir ...the morning/afternoon/evening
		tombé(e)(s) fell	...dans l'escalier in the stairs
	J'ai / nous avons I / we	voyagé travelled	...en train ...by train
		perdu / oublié / cassé	...mon portable my phone
		mangé	...du poulet ...some chicken

Sur la photo (In the photo)	je peux voir (I can see) on peut voir (we can see) à gauche il y a (to the left there is) à droite il y a (to the right there is) au centre il y a (In the centre, there is)	un homme (a man) une femme (a woman) des enfants (children) (number) personnes ((number) people) une famille (a family) le père (the father) la mère (the mother) le fils (the son) la fille (the daughter) des animaux (animals)	il regarde (he is watching)		
			il écoute (he is listening)		
			il fait (he is doing)		
			il s'amuse (he is having fun)		
			il s'ennuie (he is bored)		
			elle regarde (she is watching)		
			elle écoute (she is listening)		
			elle fait (she is doing)		
			elle s'amuse (she is having fun)		
			elle s'ennuie (she is bored)		
			ils regardent (they are watching)		
			ils écoutent (they are listening)		
			ils font (they are doing)		
			ils s'amuse (they are having fun)		
			ils s'ennuient (they are bored)		
			elles regardent (they are watching)		
			elles écoutent (they are listening)		
			elles font (they are doing)		
			elles s'amuse (they are having fun)		
			elles s'ennuient (they are bored)		

Sans hésiter (Without hesitation)		à la campagne (in the countryside)		car il fait beau (because the weather is nice)
Sans l'ombre d'un doute (Without the shadow of a doubt)		à la montagne (in the mountains)		car il fait mauvais (because the weather is bad)
À mon avis (In my opinion)		au bord de la mer (by the sea)		car il y a du soleil (because it is sunny)
Je pense que (I think that)	la photo a été prise (the photo was taken)	en ville (in town)	en été (in summer)	car il y a du vent (because it is windy)
Je crois que (I believe that)	la scène se passe (the scene takes place)	dans une grande ville (in a city)	en hiver (in winter)	car il fait chaud (because it's hot)
Je dirais que (I would say that)		dans un village (in a village)	en automne (autumn)	car il fait froid (because it's cold)
J'imagine que (I imagine that)		dans un parc (in a park)	au printemps (in spring)	parce qu'il y a du brouillard (because it is foggy)
Je suppose que (I suppose that)		dans un bâtiment (in a building)		parce qu'il y a des nuages (because it is cloudy)
J'ajouterais que (I would add that)		dans un jardin (in a garden)		car il porte des vêtements d'été (because he is wearing summer clothes)
Il me semble que... (It seems to me that)		dans un magasin (in a shop)		car elle porte des vêtements d'hiver (because he is wearing winter clothes)
		dans une salle de classe (in a classroom)		parce qu'il neige (because it is snowing)
		dans une usine (in a factory)		car il pleut (because it is raining)
		à l'intérieur (inside)		car il pleut des cordes (because it is raining like cats and dogs)
		à l'extérieur (outside)		car il fait un temps de chien (because it is a rotten weather)

Sur la photo (In the photo)	il y a (there is) on voit (we see)	un garçon. (a boy.) une fille. (a girl.) un homme. (a man.) une femme. (a woman.)	Il porte (He is wearing) Elle porte (She is wearing)	un pantalon (-trousers)	noir. (black.)	gris. (grey.)	rouge. (red.)	À mon avis (In my opinion) Je pense que (I think that)	c'est (it's)	chic. (stylish.) confortable (comfortable.) démodé. (old-fashioned.) ennuyeux. (boring.) moche. (ugly.) pratique. (practical.)
				un pull (a -jumper)	bleu. (blue.)	blanc. (white.)	rose. (pink.)			
				un sweat (a -sweatshirt)	vert. (green.)	violet. (purple.)	jaune. (yellow.)			
				un polo (a -polo shirt)						
				une jupe (a -skirt)	noire. (black.)	grise. (grey.)	rouge. (red.)			
				une veste (a -jacket)	bleue. (blue.)	blanche. (white.)	rose. (pink.)			
				une chemise (a -shirt)	verte. (green.)	violette. (purple.)	jaune. (yellow.)			
				une cravate (a -tie)						
				des chaussettes (-socks)	noires. (black.)	grises. (grey.)	rouges. (red.)			
				des chaussures (-shoes)	bleues. (blue.)	blanches. (white.)	roses. (pink.)			
				des baskets (-trainers)	vertes. (green.)	violettes. (purple.)	jaunes. (yellow.)	Ça a l'air (It looks)		

Read Aloud Tasks Week 1: Malheureusement, je n'ai jamais nagé dans la mer et je ne suis pas allé(e) à la piscine. Nous n'avons pas acheté de souvenirs car les magasins étaient nuls.

Week 2: D'abord, nous sommes arrivés) en retard et nous avons raté le train et l'avion. Puis, j'ai perdu mon passeport et mon portable. Finalement, je suis tombé à la plage.

Week 3: Normalement, je vais à la campagne avec ma famille. D'habitude, nous faisons du sport et des randonnées. Nous mangeons de la dinde rôtie et nous regardons la télé. Pendant les vacances d'hiver, nous voyageons en voiture chez mes grands-parents.

Week 4: Normalement, je vais chez mes grands-parents et je fais de la cuisine. Nous mangeons de la dinde rôtie et nous regardons la télé. L'année dernière, nous sommes allés à la montagne et nous sommes arrivés le soir. Malheureusement, J'ai perdu mon portable.

Week 5: Sur la photo, je peux voir une famille. Au centre il y a le père et la mère, ils s'amuse. À gauche il y a la fille, elle regarde quelque chose. À droite il y a le fils, il fait du sport.

Vocabulary Week 1:

Je n'ai pas [mangé]	I didn't [eat]
Je n'ai jamais [pris]	I never [took]
Je n'ai guère [acheté]	I hardly [bought]
C'était	It was
Sale	dirty
Fermé(e)	closed
[la piscine] était	[the pool] was
[les magasins] étaient	[the shops] were
<i>Je pense que</i>	<i>I think that</i>
<i>La photo a été prise</i>	<i>The photo was taken</i>

https://quizlet.com/_a4vnxz?x=1qqt&i=1xg9z8

Week 2:

Alors	so
du coup	As a result
parce que	because
cependant	however
J'ai oublié	I forgot
J'ai cassé	I broke
J'ai perdu	I lost
J'ai raté	I missed
<i>Je n'ai jamais [pris]</i>	<i>I never [took]</i>
<i>Je n'ai guère [acheté]</i>	<i>I hardly [bought]</i>

https://quizlet.com/_a4vpbu?x=1qqt&i=1xg9z8

Week 3: 'je form' Week 4: 'je and 'nous' form

Je vais / nous allons	I go / we go
Je mange / nous mangeons	I eat / we eat
Je retrouve / nous retrouvons	I meet / we meet
L'année dernière	Last year
Je suis allé(e)/ nous sommes allé(e)s	I went / we went
J'ai voyagé / nous avons voyagé	I travelled / we travelled
J'ai perdu / Nous avons perdu	I lost / we lost

J'ai cassé / nous avons cassé	I broke / we broke
J'ai oublié	I forgot
J'ai raté	I missed

https://quizlet.com/_a4vpzs?x=1qqt&i=1xg9z8

Week 5:

Sur la photo, il y a	In the photo, there is / are
Je pense que	I think that
La photo a été prise	The photo was taken
Une femme / des femmes	A woman / some women
Un homme / des hommes	A man / some men
Un enfant / des enfants	A child / some children
[l'enfant] porte...	[the child] is wearing...
[les femmes] portent	[the women] are wearing
[l'enfant] est [triste]	[the child] is [sad]
[les femmes] sont [tristes]	[the women] are [sad]

https://quizlet.com/_a4vm5h?x=1qqt&i=1xg9z8

Weeks 6+ - all of the above

German

In meiner Schule gibt es In my school there is	einen a keinen not a	großen big hässlichen ugly kleinen small schmutzigen dirty schönen nice tollen great	Computerraum computer room Fußballplatz football pitch Musiksaal music room Schulhof playground Sportplatz sports pitch Tennisplatz tennis court
	eine a keine not a	große big hässliche ugly kleine small schmutzige dirty schöne nice tolle great	Aula school hall Bibliothek library Mensa / Kantine canteen Rezeption reception Sporthalle sports hall Turnhalle gym
Wir haben We have	ein a kein not a	großes big hässliches ugly kleines small schmutziges dirty schönes nice tolles great	Büro office Klassenzimmer classroom Labor science lab Lehrerzimmer staffroom Schwimmbad swimming pool Theater theatre
	einige several viele lots of	große big hässliche ugly kleine small schmutzige dirty schöne nice tolle great	Computerräume computer rooms Fußballplätze football pitches Gänge corridors Klassenzimmer classrooms Labors science labs Toiletten toilets Umkleideräume changing rooms

In der Schule At school Im Klassenzimmer In the classroom Im Gang In the corridor In der Sporthalle In the sports hall Auf dem Schulhof On the playground	darf man you are allowed to	Chips essen eat crisps das Handy benutzen use your phone die Lehrerin zuhören listen to the teacher essen eat Kaugummi kauen chew gum
	darf man nicht you are not allowed to	
	muss man you have to	laufen run lesen read mobben bully rauchen smoke ruhig sein be quiet schreiben write Sportschuhe tragen wear trainers sprechen speak Wasser trinken drink water
	kann man you can	

Ich trage I wear Er trägt He wears Sie trägt She wears Wir tragen We wear Sie tragen They wear	einen a keinen not a	almodischen oldfashioned bequemen comfortable hässlichen ugly kurzen short langen long modischen fashionable schönen nice	blauen blue gelben yellow grauen grey grünen green roten red schwarzen black weißen white	Pullover jumper Rock skirt
	eine a keine not a	almodische oldfashioned bequeme comfortable hässliche ugly kurze short lange long modischen fashionable schöne nice	blaue blue gelbe yellow graue grey grüne green rote red schwarze black weiße white	Hose trousers Jacke jacket Jeans jeans Krawatte tie
	ein a kein not a	almodisches oldfashioned bequemess comfortable hässliche ugly kurzes short langes long modisches fashionable schönes nice	blaues blue gelbes yellow graues grey grünes green rotes red schwarzes black weißes white	Hemd shirt Kleid dress Sweatshirt sweatshirt Tshirt tshirt
		almodische oldfashioned bequeme comfortable hässliche ugly kurze short lange long modischen fashionable schöne nice	blaue blue gelbe yellow graue grey grüne green rote red schwarze black weiße white	Schuhe shoes Socken socks Sportschuhe trainers Stiefel boots

opinion	noun	Negative or intensifier	connective	adjective	verb
Ich mag I like Ich liebe I love Ich hasse I don't like Ich mag auch I also like Ich mag I like	das Hemd the shirt die Krawatte the tie die Jacke the jacket den Rock the skirt meine Schuluniform my school uniform	sehr very much nicht not gar nicht not at all überhaupt nicht absolutely not at all	 ,weil es because it ,obwohl es although it ,weil ich das because I that	bequem comfy billig cheap bunt colourful einfach easy lohnenswert worthwhile nützlich useful praktisch practical schick smart ärgerlich irritating doof silly furchtbar terrible hässlich ugly langweilig boring sinnlos useless teuer expensive unbequem uncomfortable	ist. is. finde. find. (I think it's...)

Meine ideale Schule My ideal school Meine Traumschule My dream school In meiner Traumschule In my dream school	wäre would be hätte would have gäbe es there would be	gar nicht not at all nicht not nicht zu not too sehr very ein großes Schwimmbad a big swimming pool eine moderne Mensa a modern canteen größere Klassenzimmer bigger classrooms interessante Fächer interesting subjects keine Schuluniform no school uniform keine Hausaufgaben no homework keine Klassenarbeiten no tests längere Pausen longer breaks tolle Lehrerinnen und Lehrer great teachers	groß big klein small altmodisch old-fashioned modern modern gut ausgestattet well-equipped schmutzig dirty sauber clean langweilig boring hätten would have
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Mein Vater My father Mein großer Bruder My big brother Mein Onkel My uncle	ist is	Arzt doctor Anwalt lawyer Bauer farmer Buchhalter accountant Friseur hairdresser Geschäftsmann businessman Ingenieur engineer	Hausmann house-husband Koch cook Krankenpfleger nurse Lehrer teacher Mechaniker mechanic Schauspieler actor Tierarzt vet	Er mag seine Arbeit He likes his work Er mag seine Arbeit nicht He doesn't like his work
Meine Mutter My mother Meine große Schwester My big sister Meine Tante My aunt	arbeitet als works as sucht einen Job als is looking for a job as	Ärztin doctor Anwältin lawyer Bäuerin farmer Buchhalterin accountant Friseurin hairdresser Geschäftsfrau businesswoman Ingenieurin engineer	Hausfrau house-wife Köchin cook Krankenpflegerin nurse Lehrerin teacher Mechanikerin mechanic Schauspieler actress Tierärztin vet	Sie mag ihre Arbeit She likes her work Sie mag ihre Arbeit nicht She doesn't like her work
	arbeitet works sucht einen Job is looking for a job	in einem Hotel in a hotel in einem Büro in an office in einem Krankenhaus in a hospital in einem Restaurant in a restaurant in einem Theater in a theatre	in einer Fabrik in a factory in einer Schule in a school in einer Werkstatt in a garage zu Hause at home	

Ich habe I have Wir haben We have	einen Werbespot von an advert by	Milka Penny Merci Edeka Deutsche Bahn	gesehen. watched.	Das war That was Das habe ich That have I	zu too total totally sehr very ziemlich quite ein bißchen a bit nicht not	lustig funny berührend emotional toll great kreativ creative komisch weird kitschig cheesy langweilig boring nervig annoying atemberaubend breathtaking	gefunden found verstanden understood
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Read Aloud Task Week 1: In meiner Schule gibt es Fußballplätze, Labors und Computerräume. Es gibt einen kleinen Schulhof. Dort spiele ich Basketball in der Pause mit meinen Freunden. Wir haben eine ziemlich große Bibliothek und eine tolle Mensa. Leider haben wir kein Schwimmbad.

Week 2: In der Schule darf man das Handy nicht benutzen. Das finde ich unfair. Im Klassenzimmer darf man keinen Kaugummi kauen und man darf nicht auf dem Schulgelände rauchen. In der Sporthalle muss man Sportschuhe tragen und im Gang darf man nicht laufen.

Week 3: In der Schule tragen wir ein weißes Hemd, eine Krawatte und eine schwarze Hose oder einen schwarzen Rock. Wir müssen auch eine grüne Jacke tragen. Das finde ich hässlich. In der elften Klasse darf man einen schwarzen Pullover tragen. Ich trage schwarze Socken, aber meine Freundin trägt komische weiße Socken.

Week 4: Unsere Schuluniform ist nicht schlecht aber auch nicht gut. Ich mag die Krawatte, weil es bunt ist. Ich mag auch meine Schuhe, weil sie bequem und schick sind. Jedoch ist die Schuluniform nicht billig; meine Mutter sagt die Uniform ist zu teuer. Die grüne Jacke mag ich überhaupt nicht.

Week 5: Meine ideale Schule hätte keine Schuluniform und es gäbe auch ein tolles Schwimmbad. Die Schule hätte größere Klassenzimmer, weil sie im Moment zu klein sind. Meine Traumschule hätte keine Schuluniform, keine Hausaufgaben und nette Lehrer. Die Schule wäre modern und sauber.

Vocabulary Week 1:

ich heiße	I'm called
ich trage	I play
ich habe	I have
ich besuche	I go (literally I visit)
ich hasse	I hate
ich bin	I am
ich lerne	I learn
ich höre	I listen
ich esse	I eat
ich trinke	I drink

Week 2:

es hat	it has
wir haben	we have
es gibt	there is / there are
es ist	it is
wir sind	we are
der Lehrer	teacher
die Schule	school
die Bibliothek	library
der Fußballplatz	football pitch
das Schwimmbad	swimming pool
In meiner Schule gibt es einen/eine/ein	In my school there is a (masc/fem/neuter)

Week 3:

blau	blue
schwarz	black
grün	green
gelb	yellow
weiß	white
rot	red
die Krawatte	tie

die Hose	trousers
das Hemd	shirt
die Schuhe	shoes
Ich trage	I wear
Wir haben eine grüne Jacke	We have a green blazer
Wir tragen einen schwarzen Rock	We wear a black skirt

Week 4:

Meine Grundschule	My primary school
Meine Traumschule	My dream school
Meine Gesamtschule	My comprehensive school
es wäre	it would be
sie wären	they would be
es war	it was
es gäbe	there would be
es gibt	there is
es gab	there was
es hätte	it would have
es hatte	it had
es hat	it has
ich habe	I have
ich bin	I am

Week 5:

Als ich jünger war	When I was younger
In meiner Grundschule	In my primary school
In der Vergangenheit	In the past
Früher	previously
Meine Traumschule hätte	My dream school would have
Ich möchte...haben	I would like to have...
Nächstes Jahr	Next year

Mandarin

Taunton ^{jīn tiān yǒu yǔ} 今天有雨。 Taunton today has rain.

WHERE	WHEN	WEATHER
Taunton	^{zuó tiān} 昨天 yesterday	^{yǒu fēng} 有风 windy
^{lún dūn} 伦敦 London	^{jīn tiān} 今天 today	^{yǒu yǔ} 有雨 rainy
^{běi jīng} 北京	^{míng tiān} 明天 tomorrow	^{yǒu xuě} 有雪 snowy
^{shàng hǎi} 上海		^{yǒu wù} 有雾 foggy
^{xiāng gǎng} 香港 Hongkong		^{xià yǔ} 下雨 raining
^{guǎng zhōu} 广州		^{xià xuě} 下雪 snowing
		^{tiān qíng} 天晴 sunny
		^{qíng tiān} 晴天 clear day
		^{hěn rè} 很热 very hot
		^{hěn lěng} 很冷 very cold
		^{bù lěng bù rè} 不冷不热 neither cold nor hot

A: Taunton ^{jīn tiān tiān qì zěn me yàng} 今天天气怎么样？

B: Taunton ^{jīn tiān yǒu yǔ} 今天有雨。

wǒ zhù zài yīng guó, wǒ shì yīng guó rén, wǒ huì shuō yīng yǔ. I live in the UK, I am British, I can speak English.

WHO	LIVE IN	COUNTRY	WHO	TO BE	NATIONALITY	WHO	CAN SPEAK	LANGUAGE
我 wǒ 我们 wǒ men 你 nǐ 他 tā 她 tā 朋友 péng yǒu	住在 zhù zài	英国 yīng guó The UK 中国 zhōng guó China 法国 fǎ guó France 德国 dé guó Germany 美国 měi guó America	我 wǒ 我们 wǒ men 你 nǐ 他 tā 她 tā 朋友 péng yǒu	是 shì	英国人 yīng guó rén British people 中国人 zhōng guó rén Chinese people 法国人 fǎ guó rén French people 德国人 dé guó rén German people 美国人 měi guó rén American people	我 wǒ 我们 wǒ men 你 nǐ 他 tā 她 tā 朋友 péng yǒu	会说 huì shuō	英语/英文 yīng yǔ yīng wén English 汉语/中文 hàn yǔ zhōng wén Chinese 法语/法文 fǎ yǔ fǎ wén French 德语/德文 dé yǔ dé wén German 英语/英文 yīng yǔ yīng wén English

WHO	LIVE IN	COUNTRY	WHO	TO BE	NATIONALITY	WHO	CAN SPEAK	LANGUAGE
LILY 爸爸 bà bà 妈妈 mā mā 爷爷 yé yé 奶奶 nǎi nǎi	住在 zhù zài	西班牙 xī bān yá Spain 澳大利亚 ào dà lì yà Australia 印度 yìn dù India 日本 rì běn Japan	LILY 爸爸 bà bà 妈妈 mā mā 爷爷 yé yé 奶奶 nǎi nǎi	是 shì	西班牙人 xī bān yá rén Spanish people 澳大利亚人 ào dà lì yà rén Australian 印度人 yìn dù rén Indian 日本人 rì běn rén Japanese people	LILY 爸爸 bà bà 妈妈 mā mā 爷爷 yé yé 奶奶 nǎi nǎi	会说 huì shuō	西班牙语/文 xī bān yá yǔ wén Spanish 英语/英文 yīng yǔ yīng wén English 印地语 yìn dì yǔ Hindi 日语/日文 rì yǔ rì wén Japanese

我叫 Lily, 我是英国人, 我家在农村。 My name is Lily, I am British, my home is in the countryside.

WHO	IS CALLED	NAME	WHO	TO BE	NATIONALITY	WHO	HOME	IN	PLACE
我 nǐ 你 tā 他 tā 她 péng yǒu 朋友 bà bà 爸爸 mā mā 妈妈 yé yé 爷爷 nǎi nǎi 奶奶	叫 jiào		我 nǐ 你 tā 他 tā 她 péng yǒu 朋友 bà bà 爸爸 mā mā 妈妈 yé yé 爷爷 nǎi nǎi 奶奶	是 shì	英国人 yīng guó rén 中国人 zhōng guó rén 法国人 fǎ guó rén 德国人 dé guó rén 美国人 měi guó rén 西班牙人 xī bān yá rén 澳大利亚人 ào dà lì yà rén 印度人 yìn dù rén 日本人 rì běn rén	我 nǐ 你 tā 他 tā 她 péng yǒu 朋友 bà bà 爸爸 mā mā 妈妈 yé yé 爷爷 nǎi nǎi 奶奶	家 jiā	在 zài	海边 hǎi biān 山区 shān qū 农村 nóng cūn 城市 chéng shì 小镇 xiǎo zhèn

我想和朋友一起坐飞机去中国爬长城。

I want to with friend together by plane to go to China to climb the Great Wall.

WHO	WANT	MEANS OF TRANSPORT	GO	PLACE	ACTIVITY
我 tā 他 tā 她 péng yǒu 朋友 bà bà 爸爸 mā mā 妈妈 yé yé 爷爷 LILY	想 xiǎng	坐火车 by train zuò huǒ chē 坐汽车 by car 坐公 zuò qì chē 共汽车 by bus gòng qì chē 坐出租车 by taxi zuò chū zū chē 坐飞机 by plane zuò fēi jī 坐船 by boat zuò chuán 骑自行车 ride bike qí zì xíng chē 骑马 ride a horse qí mǎ 走路 / 步行 walk zǒu lù / bù xíng	去 qù	海边 hǎi biān seaside 山区 shān qū mountain area 农村 nóng cūn countryside 城市 city chéng shì 小镇 town xiǎo zhèn 中国 China zhōng guó 法国 France fǎ guó 德国 Germany dé guó	游泳 swim yóu yǒng 滑雪 ski huá xuě 散步 take a walk sàn bù 买东西 shopping mǎi dōng xī 爬长城 pá cháng chéng climb the Great Wall 参观博物馆 cān guān bó wù guǎn visit museum 吃面包 eat bread chī miàn bǎo 吃汉堡 eat hamburger chī hàn bǎo

我二零一九年去了中国，我在中国喝了中国茶。

I in 2019 went to China, I in China drank Chinese tea.

WHO	Past time	WENT	PLACE	WHO	IN	PLACE	VERB PHRASE (past time)
我 wǒ	二零二零年 èr líng èr líng nián	去了 qù le	中国China zhōng guó	我 wǒ	在 zài	中国China zhōng guó	打了球 dǎ le qiú
我们 wǒ men	In 2020		法国France fǎ guó	我们 wǒ men		法国France fǎ guó	played ball games
他 tā	去年 last year qù nián		德国Germany dé guó	他 tā		德国 dé guó	滑了雪 skied huá le xuě
她 tā	前年 the year qián nián		美国America měi guó	她 tā		Germany měi guó	买了书 bought books mǎi le shū
朋友 péng yǒu	昨天 zuó tiān		西班牙Spain xī bān yá	朋友 péng yǒu		美国America měi guó	参观了博物馆 cān guān le bó wù guǎn
爸爸 bà ba	yesterday		澳大利亚 ào dà lì yà	爸爸 bà ba		西班牙Spain xī bān yá	visited museum
妈妈 mā ma	上个星期 shàng gè xīng qī		Australia	妈妈 mā ma		澳大利亚 ào dà lì yà	买了东西 mǎi le dōng xī
爷爷 yé ye	last week		日本 Japan rì běn	爷爷 yé ye		Australia	went shopping
奶奶 nǎi nai	上个月 shàng gè yuè			奶奶 nǎi nai		日本 Japan rì běn	爬了长城 pá le cháng chéng
	last month						Climbed the Great Wall

我二零一九年没去中国。 I in 2019 did not go to China.

WHO	Past time	Negative form	TO GO	PLACE
我 wǒ	二零二零年 èr líng èr líng nián	没 méi	去 qù	中国 zhōng guó
我们 wǒ men				韩国 hán guó
他 tā	去年 qù nián			法国 fǎ guó
她 tā	前年 qián nián			德国 dé guó
朋友 péng yǒu				美国 měi guó
LILY				
爸爸 bà ba	昨天 zuó tiān			西班牙 xī bān yá
妈妈 mā ma	上个星期 shàng gè xīng qī			澳大利亚 ào dà lì yà
爷爷 yé ye				印度 yīn dù
奶奶 nǎi nai	上个月 shàng gè yuè			日本 rì běn

wǒ zuó tiān méi tī zú qiú
我昨天没踢足球。 I yesterday did not play football.

WHO	Past time	Negative form	VERB	NOUN
wǒ 我	èr líng èr líng nián 二零二零年		qù 去	zhōng guó 中国
wǒ men 我们	qù nián 去年		kàn 看	diàn yǐng 电影
tā 他	zuó tiān 昨天		dǎ 打	wǎng qiú 网球
tā 她	qián tiān 前天		tīng 听	yīn yuè 音乐
péng yǒu 朋友	shàng gè xīng qī 上个星期		huá 滑	xuě 雪
LILY	shàng gè xīng qī yī 上个星期一		kàn 看	shū 书
bà bà 爸爸	shàng gè zhōu mò 上个周末		mǎi 买	dōng xī 东西
mā ma 妈妈	shàng gè yuè 上个月		shàng 上	wǎng 网
yé ye 爷爷			tī 踢	zú qiú 足球
nǎi nai 奶奶				

Read Aloud Task Week 1

lún dūn zuó tiān xià yǔ hé yǒu fēng bù lěng bù rè
伦敦昨天下雨和有风，不冷不热。

běi jīng jīn tiān xià xuě hé yǒu yǔ hěn lěng
北京今天下雪和有雨，很冷。

shàng hǎi míng tiān yǒu xuě hěn lěng
上海明天有雪，很冷。

xiāng gǎng zuó tiān tiān qíng jīn tiān yǒu wù hěn rè
香港昨天天晴，今天有雾，很热。

Read Aloud Task Week 2

wǒ zhù zài yīng guó wǒ shì yīng guó rén wǒ huì shuō yīng yǔ
我住在英国，我是英国人，我会说英语。

wǒ men zhù zài zhōng guó wǒ men shì zhōng guó rén wǒ men huì shuō zhōng
我们住在中国，我们是中国人的，我们会说中
wén
文。

tā zhù zài fǎ guó tā shì fǎ guó rén tā huì shuō fǎ yǔ
他住在法国，他是法国人，他会说法语。

nǎi nǎi zhù zài rì běn nǎi nǎi shì rì běn rén nǎi nǎi huì shuō rì
奶奶住在日本，奶奶是日本人，奶奶会说日
yǔ
语。

Read Aloud Task Week 3

wǒ jiào wǒ shì yīng guó rén wǒ jiā zài hǎi biān
我叫 Lily，我是英国人，我家在海边。

mā mā jiào mā mā shì zhōng guó rén mā mā jiā zài xiǎo
妈妈叫 Xiao Li，妈妈是中国人，妈妈家在小
zhèn
镇。

yé yé jiào yé yé shì měi guó rén yé yé jiā zài chéng shì
爷爷叫 Paul，爷爷是美国人，爷爷家在城市。

nǎi nǎi jiào nǎi nǎi shì yìn dù rén nǎi nǎi jiā zài shān qū
奶奶叫 May，奶奶是印度人，奶奶家在山区。

Read Aloud Task Week 4

wǒ xiǎng hé péng yǒu yī qǐ zuò huǒ chē qù chéng shì cān guān bó wù
我想和朋友一起坐火车去城市参观博物

guǎn
馆。

tā xiǎng hé tā yī qǐ zuò chū zū chē qù shān qū huá xuě
她想和他一起坐出租车去山区滑雪。

bà bà xiǎng hé mā mā yī qǐ zuò fēi jī qù fǎ guó mǎi dōng xī
爸爸想和妈妈一起坐飞机去法国买东西。

yé yé xiǎng hé nǎi nǎi yī qǐ zuò gōng gòng qì chē qù hǎi biān yóu
爷爷想和奶奶一起坐公共汽车去海边游

yǒng
泳。

Read Aloud Task Week 5

wǒ men èr líng èr wǔ nián qù le zhōng guó wǒ men zài zhōng guó pá le cháng
我们二零二五年去了中国，我们在中国爬了长
chéng
城。

péng yǒu qù nián qù le xī bān yá péng yǒu zài xī bān yá dǎ le qiú
朋友去年去了西班牙，朋友在西班牙打了球。

nǎi nǎi shàng gè yuè qù le ào dà lì yà nǎi nǎi zài ào dà lì yà mǎi
奶奶上个月去了澳大利亚，奶奶在澳大利亚买
le shū
了书。

bà bà qián nián qù le dé guó bà bà zài dé guó huá le xuě mā mā
爸爸前年去了德国，爸爸在德国滑了雪，妈妈
méi qù dé guó
没去德国。

Read Aloud Task Week 6

wǒ men zuó tiān méi tī zú qiú
我们昨天没踢足球。

tā shàng gè xīng qī méi shàng wǎng
她上个星期没上网。

bà bà shàng gè xīng qī yī méi mǎi dōng xī
爸爸上个星期一没买东西。

mā mā qù nián méi qù zhōng guó
妈妈去年没去中国。

Vocabulary Week 1

有风	Windy
有雨	Rainy
有雪	snowy
有雾	foggy
下雨	raining
下雪	snowing
天晴	sunny
晴天	Clear day
很热	Very hot
很冷	Very cold

Week 2

中国	China
英国	UK
法国	France
德国	Germany
美国	USA
韩国	South Korea
西班牙	Spain
印度	India
日本	Japan
住在	Live in

Week 3

山区	Mountain area
海边	seaside
农村	countryside
城市	city
朋友	friend
家	Home; family
在	To be located
地方	place
想	Would like to; want to
一起	together

Week 4

坐火车	By train
坐汽车	By car
坐公共汽车	By bus
坐出租车	By taxi
坐飞机	By plane
坐船	By boat/ship
骑马	Ride a horse
骑自行车	Ride a bike
和	with
跟	with

Week 5

去了	Went to
中国	China
去年	Last year
昨天	yesterday
上个月	Last month
上个星期	Last week
打了球	Played ball games
买了东西	Went shopping
看了朋友	Visited friend
长城	Great wall of China

Week 6

牛奶	milk
牛肉	beef
猪肉	pork
羊肉	lamb
鸡肉	chicken
火鸡肉	Turkey meat
鸭肉	Duck meat
早饭	breakfast
午饭	lunch

晚饭	dinner
----	--------

Spanish

¿Dónde vas a vivir...? - Where are you going to live...? ¿Dónde te gustaría vivir...? – Where would you like to live...?

TIME PHRASE	VERB	NOUN
En el futuro In the future	yo voy a vivir = I am going <u>to</u> live él/ella va a vivir = He / She is going <u>to</u> live nosotros vamos a vivir = We are going <u>to</u> live	en Alemania = in Germany en Escocia = in Scotland en España = in Spain en Francia = in France en Gales = in Wales en Grecia = in Greece en Inglaterra = in England en Italia = in Italy
El próximo año Next year	ellos van a vivir = They are going <u>to</u> live	en el campo = in the countryside en el centro de la ciudad = in the city centre
Cuando sea mayor When I am older	me gustaría vivir = I would like <u>to</u> live no me gustaría vivir = I would not like <u>to</u> live odiaría vivir = I would hate <u>to</u> live	en un piso = in a flat en un pueblo = in a village / town en una casa = in a house en una ciudad = in a city en la costa = on the coast en la montaña = in the mountains

¿Cómo es tu ciudad/pueblo...?- What is your city/town like...?

OPINION PHRASES	NOUN	VERB	INTENS'	ADJECTIVE
Pienso que I think that	mi pueblo my town / village	es is	un poco a bit	antiguo old bonito pretty contaminado polluted feo ugly grande big importante important industrial industrial moderno modern pequeño small superpoblado overpopulated tranquilo quiet turístico touristy
Creo que I believe that	mi barrio my neighbourhood			bonita pretty contaminada polluted fea ugly grande big histórica historic importante important industrial industrial pequeña small pintoresca picturesque superpoblada overpopulated turística touristy
En mi opinión In my opinion	mi ciudad My city		muy very	

¿Cómo es tu ciudad/pueblo? (comparativos). What is your city/town like? (comparatives).					
TOWN/CITY	VERB	COMPARATIVE	ADJECTIVE	COMPARATIVE	TOWN/CITY
Taunton = <i>Taunton</i> Trull = <i>Trull</i> Villares = <i>Villares</i> Wellington = <i>Wellington</i>	es = is	más = more menos = less	antiguo = old concurrido = busy contaminado = polluted feo = ugly grande = big histórico = historic importante = important industrial = industrial moderno = modern pintoresco = picturesque tranquilo = quiet	que = than	Galmington = <i>Galmington</i> Manchester = <i>Manchester</i> Liverpool = <i>Liverpool</i> Berlin = <i>Berlin</i>
Bristol = <i>Bristol</i> Londres = <i>London</i> Madrid = <i>Madrid</i> Barcelona = <i>Barcelona</i>		tan = as	bonita = pretty concurrida = busy contaminada = polluted fea = ugly grande = big histórica = historic importante = important industrial = industrial pequeña = small superpoblada = overpopulated turística = touristy	como = as	

¿Dónde vivías cuando eras más joven? (the imperfect tense) - Where did you used to live when you were younger?					
TIME PHRASE	VERB - imperfect	PREP.	LOCATION	VERB - imperfect	ADJECTIVE/LOCATION
Cuando era más joven <i>When I was younger</i>	yo vivía <i>I used to live</i>	en in/on	un barrio <i>an area, neighbourhood</i>	Mi barrio era <i>My neighbourhood was (description)</i>	antiguo <i>old</i> bonito <i>beautiful</i> cómodo <i>comfortable</i> feo <i>ugly</i>
	él vivía <i>he used to live</i>		un bloque de pisos <i>a block of flats</i>	Mi casa era <i>My house was (description)</i>	grande <i>big</i> moderna <i>modern</i> nueva <i>new</i> pequeña <i>small</i> rara <i>weird</i>
	ella vivía <i>she used to live</i>		un castillo <i>a castle</i>	Estaba <i>It was (location)</i>	en España <i>in Spain</i> en el norte de Inglaterra <i>in the north of England</i> en la costa <i>on the coast</i> en el campo <i>in the countryside</i> cerca del centro de la ciudad <i>close to the city centre</i>
	ellos vivían <i>they used to live</i>		un edificio <i>a building</i>		
Hace ... años <i>..... years ago</i>	nosotros vivíamos <i>we used to live</i>		un piso <i>a flat</i>		
En el pasado <i>In the past</i>			una casa <i>a house</i>	Tenía <i>It had</i>	un jardín grande <i>a big garden</i> una cocina moderna <i>a modern kitchen</i>
			una granja <i>a farm</i>	Había <i>There was/were</i>	tres dormitorios <i>three bedrooms</i>
¿Qué hay en tu pueblo / ciudad? What is there in your town/city?					
TOWN/CITY	VERB	ARTICLE	PLACE		CONNECTIVE
En mi pueblo <i>=In my town / village</i>	hay <i>= there is</i>	un <i>a</i>	castillo = castle cine = cinema estadio = stadium hospital = hospital mercado = market	museo = museum parque = park polideportivo = sports centre restaurante = restaurant supermercado = supermarket	y <i>= and</i>
	no hay <i>= there is no</i>	una <i>a</i>	bolera = bowling alley piscina = swimming pool playa = beach	plaza = town square plaza de toros = bullring tienda = shop	= también <i>as well, too, also</i> además <i>= furthermore</i>
En mi ciudad = <i>In my city</i>	hay <i>= there are</i>	unos <i>some</i>	castillos = castle cines = cinema estadios = stadium hospitales = hospital mercados = market	museos = museum parques = park polideportivos = sports centre restaurantes = restaurant supermercados = supermarket	pero <i>= but</i>
En Taunton = <i>In Taunton</i>	no hay <i>= there are no</i>	unas <i>some</i>	boleras = bowling alleys piscinas = swimming pools playas = beaches	plazas = town squares plazas de toros = bullrings tiendas = shops	sin embargo <i>= however</i>

Read Aloud Task Week 1: Cuando sea mayor yo voy a vivir en el campo, en una casa en Escocia, sin embargo el próximo año mi mejor amiga va a vivir en el centro de la ciudad, en Italia.

Week 2: Pienso que mi ciudad es demasiado antigua, concurrida y contaminada. Me gustaría vivir en un pueblo pequeño, tranquilo y pintoresco en el norte de Alemania.

Week 3: Taunton es más bonito y tranquilo que Bristol, pero menos histórico y contaminado que Londres, sin embargo es tan industrial y concurrido como Exeter.

Week 4: Cuando tenía siete años, yo vivía en un castillo. Era bastante cómodo pero un poco raro. Estaba en la costa, tenía un jardín muy grande y había una cocina acogedora.

Week 5: En mi pueblo hay un polideportivo moderno, una plaza de toros pintoresca, unos parques bastante grandes y unas tiendas modernas y bonitas.

Week 6: En el futuro me gustaría vivir en una ciudad en la costa, en España. Mi barrio va a ser bonito y tranquilo, voy a vivir en una casa grande y con cinco habitaciones

Vocabulary Week 1:

(yo) vivo	I live
(nosotros) vivimos	we live
en	in
que es	which is
un pueblo	a town
una ciudad	a city
un barrio	a neighbourhood, an area
en el campo	in the countryside
en la costa	on the coast
en la montaña	in the mountains

[Y8 HT2 SP High Frequency Vocabulary Week 1 Flashcards | Quizlet](#)

Week 2:

Más	more
Menos	less
Que	than
tan...como...	as...as...
Bonito	pretty
tranquilo	quiet
concurrido	busy
contaminado	polluted
un pueblo	a town
una ciudad	a city

[Y8 HT2 SP High Frequency Vocabulary Week 2 Flashcards | Quizlet](#)

Week 3:

muy	very
bastante	quite
un poco	a bit
pequeño	small
feo	ugly
superpoblado	over-populated
raro	Weird
cómodo	<i>comfortable</i>
más	More
menos	Less

[Y8 HT2 SP High Frequency Vocabulary Week 3 Flashcards | Quizlet](#)

Week 4:

cuando era más joven	when I was younger
cuando tenía seis años	when I was 6 years old
en el pasado	in the past
vivía	I used to live
era	it was (description)
estaba	it was (location)
tenía	it used to have
había	there used to be
bastante	quite
un poco	a bit

[Y8 HT2 SP High Frequency Vocabulary Week 4 Flashcards | Quizlet](#)

Week 5:

hay	there is / there are
no hay	there isn't / there aren't
sin embargo	however
además	furthermore
dicho eso	having said that
y	and
pero	but
también	also
tenía	it used to have
había	there used to be

[Y8 HT2 SP High Frequency Vocabulary Week 5 Flashcards | Quizlet](#)

Week 6:

a menudo	often
a veces	sometimes
cuando tengo tiempo	when I have time
dos veces a la semana	twice a week
nunca	never
los fines de semana	at the weekends
siempre	always
todos los días	every day
hay	there is / there are
también	also

[Y8 HT2 SP High Frequency Vocabulary Week 6 Flashcards | Quizlet](#)

Week 7:

hace viento	it's windy
hace sol	it's sunny
hace frío	it's cold
hace calor	it's hot
hay niebla	it's foggy
hay tormenta	it's stormy

llueve	it's raining
nieva	it's snowing
está nublado	it's cloudy
hoy	today

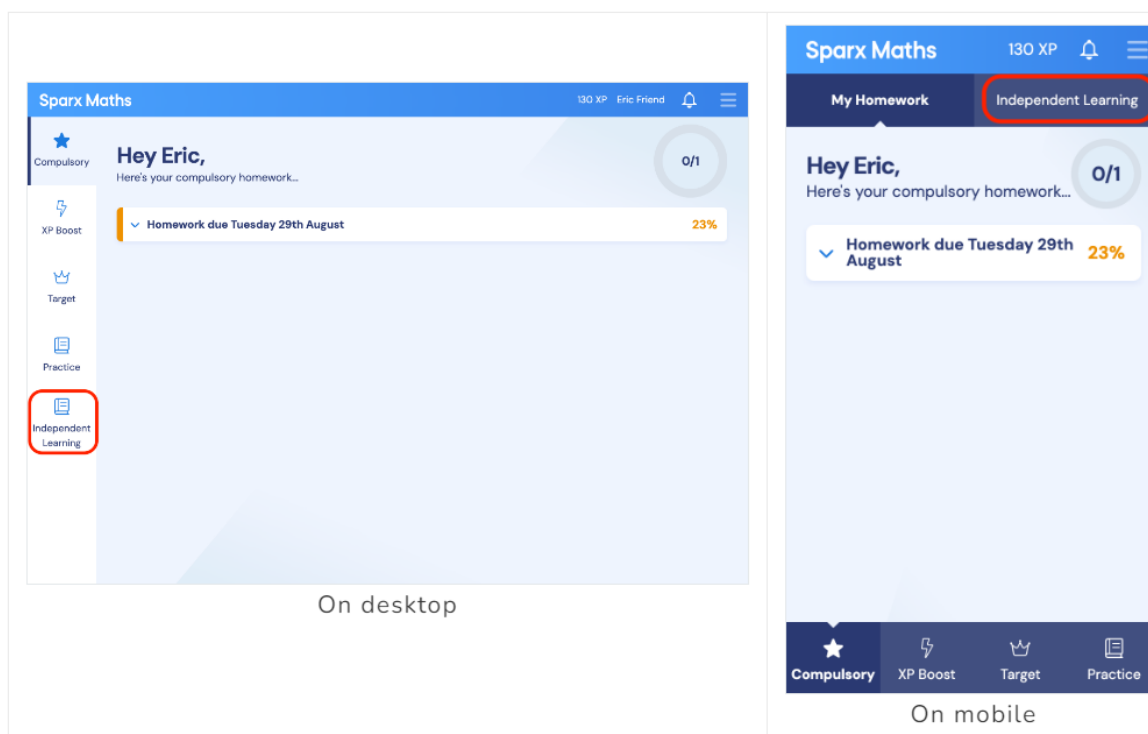
[Y8 HT2 SP High Frequency Vocabulary Week 7 Flashcards | Quizlet](#)

Maths

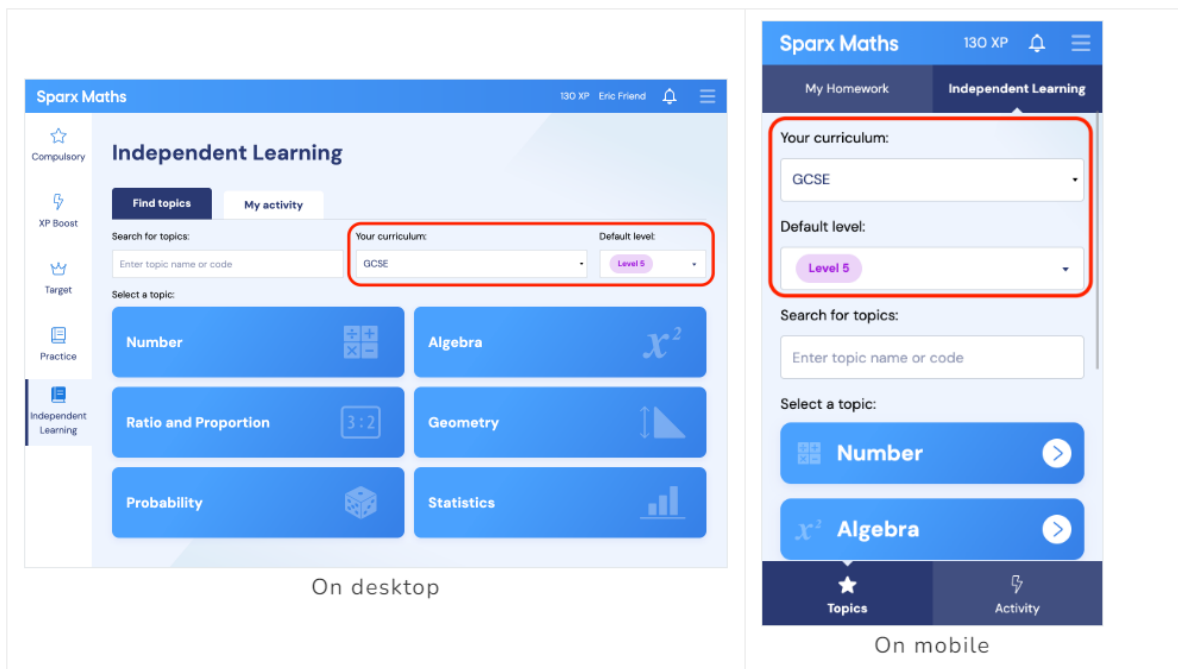
On a Monday, your Maths task will be set by your teacher. You should log on to Sparx Maths to complete this task. Your practice book has an area for your workings which you need to use as during the homework, Sparx Maths undertakes a bookwork check.

On a Thursday you practice independently on an area where you have a gap in your knowledge.

When logged in to Sparx students will always be able to see the Independent Learning option on the main menu:



Students have the option to choose both the **curriculum** they want to work on and the **default level** for the questions they will see, but when they first log in the curriculum will be the same as the **Base curriculum** that is set on their class' SoL, and the level will be set to the level they are being set for their homework (whether this was chosen by the algorithm or the teacher.)



- Typing one of the following in the **Search for topics field**:
 - The name of a topic
 - A keyword
 - A code given to them by their teacher. (Find out more about Topic Codes in our article on the [Independent Learning Page](#))
- Browsing the content by clicking on one of the main Strands:



Choosing what level to work at within a topic

When in a topic, students will see three sets of questions at the level set on their Independent Learning homepage (see image above) which they can choose from:

- **Introduce:** basics skills for this topic at this level
- **Strengthen:** questions to consolidate understanding
- **Deepen:** more problem-solving type questions to challenge

If students find questions too easy or too tricky, they can change the level of each individual topic*. This won't affect the overall level of questions in all other topic areas so they can tailor what they see to their strengths and weaknesses.

*Some topics won't have higher or lower levels depending on the subject chosen.

How students view their own progress

1. By a count next to each topic, and **Ticks** and **Stars** within each set of questions:



- Students will get a **tick** if they complete one of the tasks in the topic. This means all the basics are covered.
- Students will get a **star** for each subsequent task they complete.

Music

WEST AFRICAN DJEMBE DRUMMING

BUILDING ON WHAT YOU ALREADY KNOW:

- **Dynamics** - volume
- **Tempo** - speed
- **Pulse** - a steady beat (think of the pulse in your body)
- **Structure**- the different sections in a piece of music (AB, ABA, verse/chorus)
- **Improvisation** - making up the music as you are going along while still following the pulse and style
- **Call and Response** - a phrase is sung or played and is answered by another group (Oggie, Oggie, Oggie)

TASKS:

Discover four of the traditional instruments from Africa, and historic methods of communication/performing (gumboot dancing)

To read drum rhythm tables to perform accurate poly-rhythms

Create a piece of music with a call and response, improvisation and syncopation

FINAL PROJECTS:

Perform as a group your African Music composition. It should have a steady pulse and clear structure with, different drum strokes (sonority), dynamics and textures.



NEW ESSENTIAL KNOWLEDGE:

- **Bass** - the drum is hit in the centre with flat fingers and palm. This creates the lowest pitch sound.
- **Tone** - the drum is hit near the edge, using the edge of your palm and most of the underside of your fingers. Your fingers should be together. This creates a middle pitch sound.
- **Slap** - the drum is hit close to the edge, using only your fingertips and the edge of your palm. Your fingers are spread out a little bit. It creates the highest pitch sound.
- **Texture** - the different layers happening within a piece.
 - Monophonic** - a single unaccompanied line of music, one layer.
 - Homophonic** - multiple layers of music but everything moves in chunks, the same rhythm.
 - Polyphonic** - multiple layers of music doing different things.
- **Rhythm** - how long notes last and how they are grouped together in a pattern
- **Polyrhythm** - multiple rhythms happening at the same time
- **Syncopation** - when a note is moved slightly earlier so that it is before the beat
- **Djembe**
- **Kora**
- **Talking drum**
- **Balafon**



VARIATIONS

BUILDING ON WHAT YOU ALREADY KNOW:

- **Dynamics** - volume
- **Tempo** - speed
- **Pitch** - how high or low the note is
- **Instrumentation** - what instruments are used
- **Structure** - the different sections in a piece of music (AB, ABA, verse/chorus)
- **Keyboard Skills**
- **Production Skills (GarageBand)**

TASKS:

Define variations and particularly musical variations

Analyse how music has been varied using DR SMITH for key-words on a variety of different pieces of music

Perform the ground bass from Canon in D and a piece of historic music as written as fluently as possible.

FINAL PROJECTS:

Experiment with DR SMITH to **create** and **perform** your own variations based upon a simple melody.

Experiment with DR SMITH to **create** and **produce** your own variation on GarageBand.



NEW ESSENTIAL KNOWLEDGE:

- **Variation** - where the main theme/melody has been altered to make a still recognisable but different melody (like a remix)
- **Round/Canon** - the same melody is used but each musician starts at different times
- **Articulation** - the way you play certain notes
 - *staccato*—detached and spikey)
 - *legato*—playing smoothly, will often have *slurs*
- **Texture** - the different layers happening within a piece.
 - *Monophonic* - a single unaccompanied line of music, one layer.
 - *Homophonic* - multiple layers of music but everything moves in chunks, the same rhythm.
 - *Polyphonic* - multiple layers of music doing different things.
- **Rhythm** - how long notes last and how they are grouped together in a pattern
- **Melody** - the tune or most important layer in a piece of music. In vocal music the lyrics are the melody.
- **Tonality** - what key the piece of music is in.
 - *Major* gives a happy feel
 - *Minor* makes the music seem sadder.
- **Harmony** - the chords that get played with the melody are the harmony, they are major or minor chords
- **Ground Bass**—a repeated bass line



Below are 10 tips to improve your mental wellbeing

- What feelings or situations may cause your mental health to decline.



Follow the QR code to watch more on Remembrance or <https://www.youtube.com/watch?v=MKT1JPdMoCA>



<https://www.youtube.com/watch?v=Hr2Dk0QQ3Sw>



Every year the country comes together for Remembrance Sunday.

A period of silence is held at 11am to remember the people who have died in wars around the world



RELATIONSHIPS	
UNHEALTHY	HEALTHY
✗ Disrespectful	✓ Respectful
✗ Dishonest	✓ Honest
✗ Pressured into Sex	✓ Consent
✗ Lack of Trust	✓ Trust
✗ Non-communicative	✓ Good Communication
✗ Controlling	✓ Equal
✗ Isolating	✓ Being Yourself

Religion and World Views

Week 1 - Why Some People Are LGBT+ phobic and Why We Should Be Allies

LGBT+phobia means fear or dislike of people who are lesbian, gay, bisexual, transgender, or part of the LGBT+ community. Sadly, this kind of thinking has existed for a long time. In the past, many societies had strict rules about gender and relationships. People who didn't fit those rules were often treated unfairly or punished.

Some people today are LGBT+phobic because of things they've been taught, by family, culture, or religion. Others may feel uncomfortable with things they don't understand. Fear often comes from not knowing the truth. For example, someone might believe harmful myths about LGBT+ people because they've never met someone who is openly LGBT+.

But being different doesn't mean being wrong. Everyone deserves respect, safety, and kindness, no matter who they are or who they love.

That's why it's important to be an **ally**. An ally is someone who stands up for others, even if they're not part of that group. Being an ally means listening, learning, and speaking out when you see unfairness. It means helping everyone feel welcome and safe.

You don't have to be an expert, just be kind, fair, and open-minded. When we support each other, we make the world better for everyone.

Week 3 - Understanding Xenophobia: Antisemitism and Islamophobia

Xenophobia means fear or dislike of people who are different, especially those from other countries, cultures, or religions. Two common forms of xenophobia are **antisemitism** (hatred toward Jewish people) and **Islamophobia** (hatred toward Muslims). These forms of hate have existed for centuries and have caused great harm.

Antisemitism has led to terrible events in history, like the Holocaust, where millions of Jewish people were murdered. Islamophobia has also caused pain, with Muslims being unfairly blamed, bullied, or treated as dangerous just because of their faith.

Why does this happen? Sometimes people believe false stories or stereotypes. They might think all Muslims are violent or all Jewish people are greedy, which is completely untrue. These ideas often come from fear, ignorance, or things people hear in the media or from others.

But no one should be judged by their religion or background. Everyone deserves to be treated with kindness and respect.

That's why it's important to be a **faith friend**. A faith friend is someone who stands up for people of different religions. It means learning about their beliefs, speaking out against unfair treatment, and showing kindness and support.

You don't have to share someone's religion to respect it. Being a faith friend helps build peace, understanding, and fairness in our communities.

Week 5 - Understanding Ableism: Why Inclusion Matters

Ableism is when people are treated unfairly because they have a disability. This can include physical disabilities, learning difficulties, or mental health conditions. Ableism can be obvious, like bullying someone who uses a wheelchair, or more hidden, like not including someone in a game because they learn differently.

Some people are ableist without even realising it. They might assume someone with a disability can't do certain things, or they might feel uncomfortable because they don't understand what a disability is. These ideas often come from a lack of knowledge or from stereotypes shown in films, books, or the media.

But having a disability doesn't mean someone is less important or less capable. Everyone has strengths, and everyone deserves to feel safe, respected, and included.

That's why it's important to be **inclusive**. Being inclusive means making sure everyone is welcome, no matter their abilities. It means using kind words, offering help when it's needed (but not assuming help is always wanted), and making sure activities are accessible to everyone.

You don't have to be perfect — just open-minded and caring. Ask questions, listen, and treat people the way you'd want to be treated. When we include everyone, we create a world that's fairer, friendlier, and full of different talents and

Science – Physics

Week 1 - How fast?

Re-cap of Y7:

SPEED is the measure of how much distance an object moves in a set time.

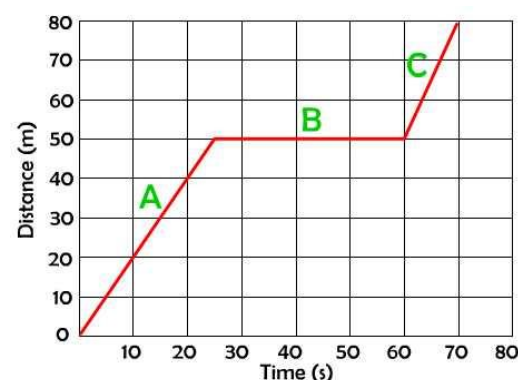
Speed – m/s (meters per second)

Distance – m (meters)

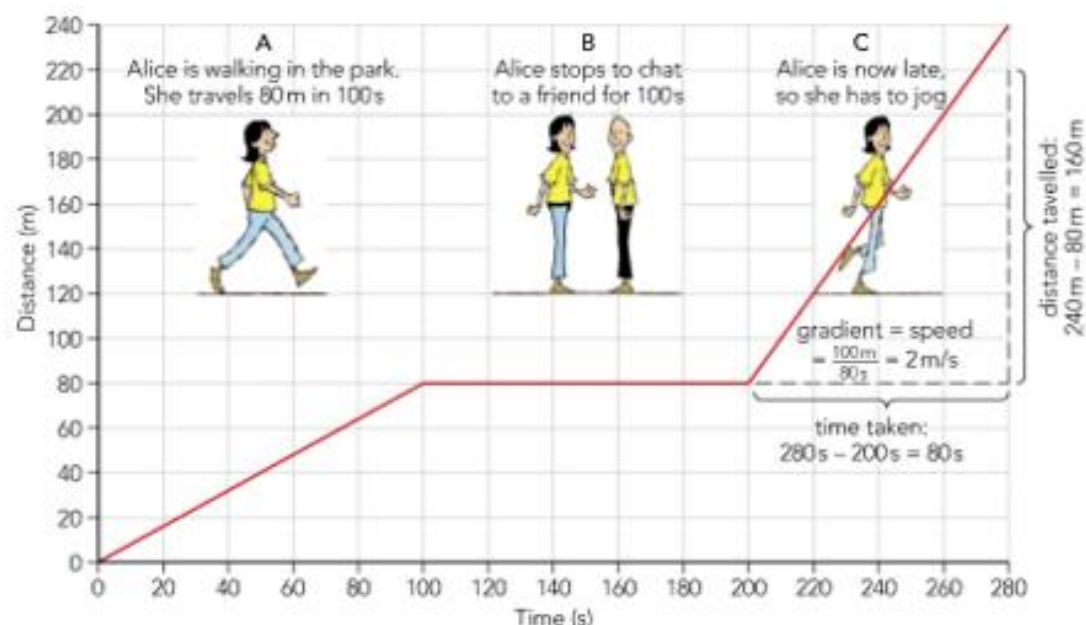
Time – s (seconds)

Distance/Time graphs can be used to show a journey.

Example distance time graph. The distance travelled is plotted against the time it took to travel the distance



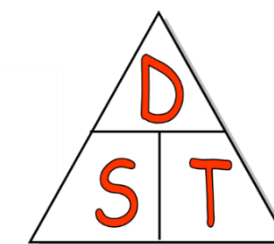
Speed is calculated from a distance/time graph by calculating the gradient of the line.



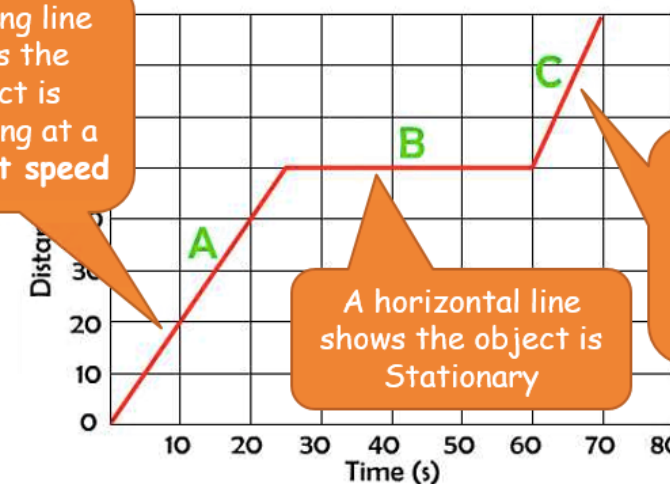
$$\text{Speed} = \frac{\text{Distance}}{\text{Time}}$$

$$\text{Distance} = \text{Speed} \times \text{Time}$$

$$\text{Time Taken} = \frac{\text{Distance}}{\text{Speed}}$$



A sloping line shows the object is travelling at a constant speed



A steeper line shows the object is travelling faster

Week 2 - What is acceleration?

Acceleration is a rate of change of speed (how quickly an object is changing speed)

Acceleration is measured in m/s^2 .

Velocity is speed in a given direction

Calculating acceleration

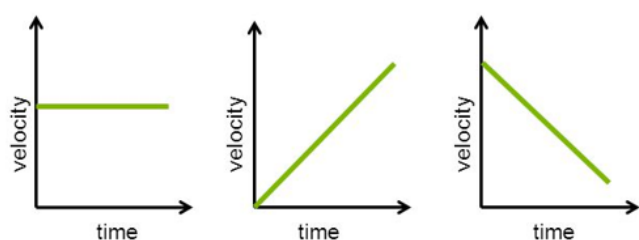
$$\text{acceleration} = \frac{\text{change in velocity}}{\text{time taken}}$$

- a is the acceleration
- v is the final velocity
- u is the initial velocity
- t is the time taken for the change in velocity.

$$\frac{(v-u)}{a \times t}$$

Week 3 - How can we show acceleration?

Velocity/time graphs demonstrate how velocity changes over time.



A horizontal line shows an object at a constant velocity or stationary

A sloping upwards line shows a constant acceleration

A sloping downwards line shows a constant deceleration (negative acceleration)

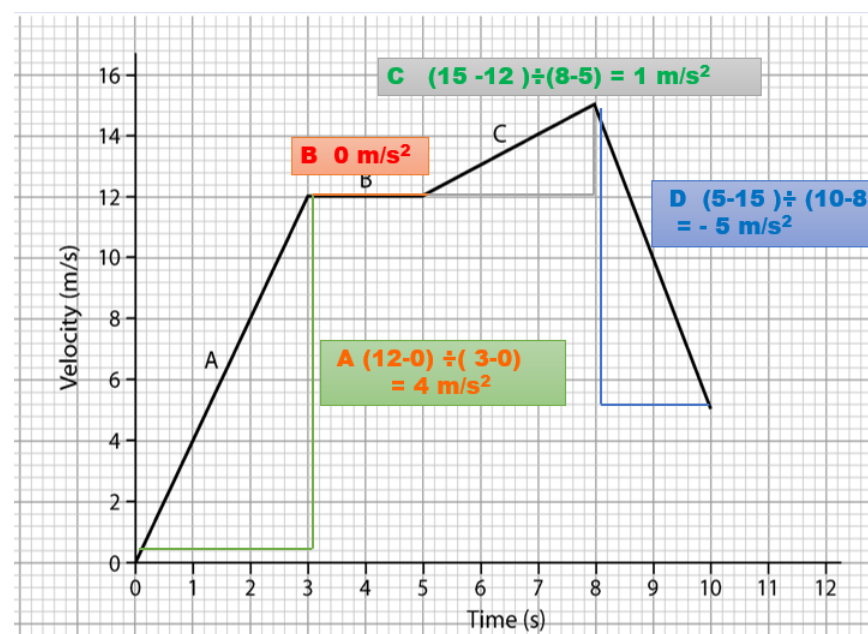
- Horizontal line shows an object travelling at a constant velocity
- Upwards sloping line demonstrates an object accelerating
- Downwards sloping line demonstrates an object decelerating.

Reminder:

Acceleration = change in velocity / time

Calculations from a velocity time graph

- **Acceleration** is calculated from the gradient of the line:



Week 4 - What are waves?

A wave is the transfer of energy with no overall transfer of matter

There are 2 different types of wave:

1. Transverse waves

In transverse waves particles vibrate up and down. The direction of the wave is from left to right. Therefore, transverse waves are defined as 'a wave where particles travel at a right angle to the direction of the wave.'

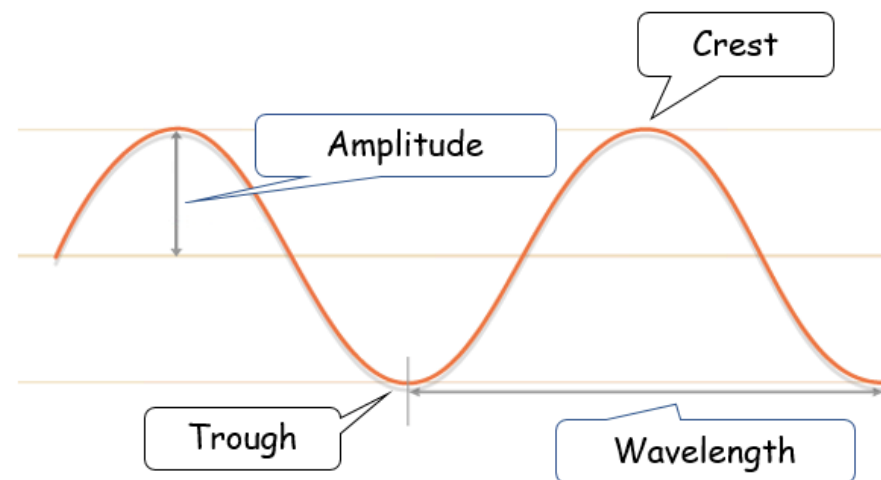
Examples of transverse waves include: Light waves, water ripples, x-rays, radio waves, microwaves.

2. Longitudinal waves

In longitudinal waves particles vibrate back and forth, the direction of the wave goes from left to right. Therefore, longitudinal waves are defined as 'a wave where particles move parallel to the direction of the wave.'

Examples of longitudinal waves: Sound waves, seismic waves (shock waves from earthquakes)

Labelling a transverse wave:



Crest – highest point in a wave

Trough – lowest point in a wave

Amplitude – distance from the centre line to a crest or trough (measured in metres)

Wavelength – length of one full wave (easiest to measure from one peak to the next). Or from one trough to the next (measured in meters).

Frequency is the number of complete waves per second. Frequency is measured in hertz (Hz).

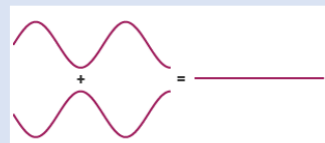
Superposition as when two waves meet they can affect one another (interference)

Constructive interference as when two waves coincide with peaks and troughs matching they are said to be in phase. If two waves are in phase they add together and reinforce each other. They produce a much higher wave, a wave with a greater amplitude.

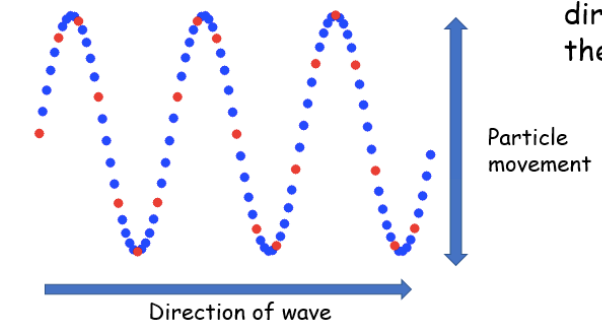
Destructive interference (cancelling)

- If two waves coincide with peaks of one meeting troughs of the other they are said to be **out of phase**.
- If two waves are exactly out of phase they will interfere destructively to produce **zero amplitude**.

So, if two waves meet each other out of phase, they cancel out.

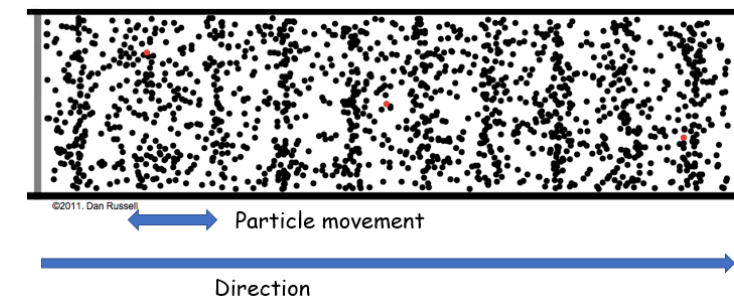


Transverse waves...



.. Particles move at a right angle to the direction of the wave.

Longitudinal waves

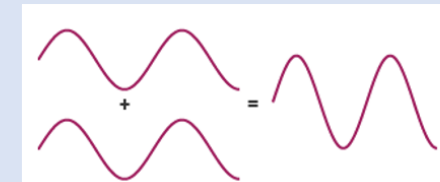


.. Particles move parallel to the direction of the wave.

Constructive interference (adding)

If two waves coincide with peaks and troughs matching they are said to be **in phase**.

If two waves are in phase they add together and reinforce each other. They produce a much higher wave, a wave with a greater **amplitude**.



Destructive interference as when two waves coincide with peaks of one meeting troughs of the other they are said to be out of phase. If two waves are exactly out of phase they will interfere destructively to produce zero amplitude.

Week 5 - How can we measure the speed of a wave?

Wave speed can be calculated by:
Wave speed (m/s) = frequency (Hz) x wavelength (m)
Waves travel at different speeds through different media.
e.g.

Statement	Light	Sound
Speed in a vacuum	299 800 000 m/s	0 m/s
Speed in air (at 20°C)	299 700 000 m/s	330 m/s
Speed in water	225 000 000 m/s	1500 m/s
Speed in steel	0 m/s	5100 m/s
Speed in glass	200 000 000 m/s	2000–6000 m/s
Can it transfer energy	Yes	Yes

Recap:

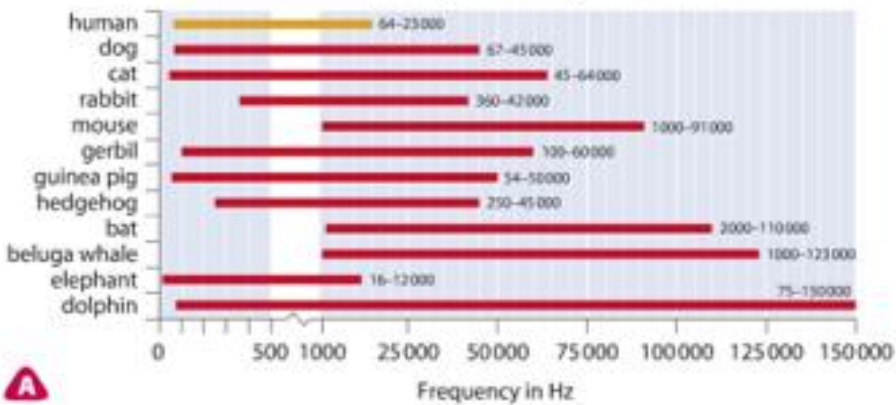
- Frequency is the number of waves per second
- Frequency is measured in Hertz (Hz)

Week 6 - How do we hear?

Sound waves are produced by vibrating particles
e.g. vocal cords, guitar strings, tuning forks

- An increasing amplitude of sound waves increases the sound intensity (volume)
- An increasing wavelength decreases the pitch of the sound
- Link between frequency and wavelength. Shorter the wavelength the higher the frequency.

Human hearing range is between 20-20,000 Hz
(but other animals can hear between different frequencies)



Structure of ear:

- **Ear canal** – sound waves travel towards the ear and through the ear canal
- **Ear drum** – As a thin membrane. Sound waves cause the ear drum to vibrate.
- **Small bones** – 3 small bones. The vibrating ear drum causes these bones to vibrate.
- **Cochlea** – converts vibrations into electrical signals (impulses). The bones vibrating cause the liquid in the cochlea to vibrate.
- **Auditory nerve** – sends the electrical signals to the brain.

