



# Year 8 Knowledge Organiser

You will receive a Knowledge Organiser booklet on a termly basis, which includes revision for: English, Maths, Science, MFL, History and Geography

#### **Knowledge Organiser instructions:**

You will be set three pieces of homework per week and you should use the information from each topic to make a poster or a mind map. You will need to bring your work in to school and will be quizzed on each topic in class.

At the back of the knowledge organiser there are some suggested extra tasks that could be completed on top of the homework you will be set.

#### **Email address for any queries:**

For further support, scan the QR Code and it will take you to the school website:

English: Miss Pett	pettr035@sflt.org.uk
Maths: Mr Huston	hustj008@sflt.org.uk
Science: Mrs Gilbey	gilbl117@sflt.org.uk
History: Miss Gurung	gurua221@sflt.org.uk
Geography: Mr Butters	buttf095@sflt.org.uk
MFL: Miss Lara	larae006@sflt.org.uk



Preparing you for the Future

#### **Homework schedule for the term:**

Week	Subject and section	Revision technique	
1 (B)	English, MFL and Maths Topic 1	Create a mind map for the information in Topic 1	
2 (A)	Science, History and Geography Topic 1	Create a mind map for the information in Topic 1	
3 (B)	English, MFL Maths Topic 2	Create a poster using the information in Topic 2	
4 (A)	Science, History and Geography Topic 2	Create a poster using the information in Topic 2	
5 (B)	English, MFL Maths Topic 3	Create a mind map for the information in Topic 3	
6 (A)	Science History and Geography	Create a mind map for the information in Topic 3	

#### **Optional Extra Tasks**

If you would like to spend more time working independently to develop excellence in your subjects. Here is a suggested timetable for you to follow. If you have forgotten your usernames and passwords for these apps, speak to your form tutor and they will be able to support you.

Monday	Spend 30 minutes on Spell Zone	Thursday	Complete 30 minutes DEAR Time using your library book
Tuesday	Complete 30 minutes on Sparx	Friday	Spend 30 minutes learning the key words from your subjects this week.
Wednesday	Spend 30 minutes completing revision using BBC Bitesize		

Year 8 Term 4

Your teacher will tell you which topic you should revise. Read and learn all the information in the topic, ready for a Quiz in lesson.

Topic 1: What are the features of different types of pon-fiction text?

Topic 1: What are the features of different types of non-fiction text?				
<u>Article</u>	<u>Leaflet</u>	<u>Letter</u>	<u>Speech</u>	<u>Review</u>
<ul> <li>Headline and Strapline</li> <li>Introduction to create interest – (include who, what, where, when, how and why?)</li> <li>3-4 middle paragraphs</li> <li>Short but effective conclusion</li> <li>Written in past tense</li> <li>Can be subject to bias depending on the source of the infformation</li> <li>DAFORREST techniques</li> </ul>	<ul> <li>Present information so it is easy to find using headings and subheadings</li> <li>Upbeat and engaging</li> <li>Leaflets are used to explain or describe something</li> <li>DAFORREST techniques</li> <li>Images to support ideas</li> </ul>	<ul> <li>Date</li> <li>Dear Mrs Smith = yours sincerely or Dear Sir/Madam. = yours faithfully</li> <li>Short introductory paragraph</li> <li>3-4 middle paragraphs</li> <li>Concluding paragraph summarising ideas.</li> <li>Formality depends on your relationship with the recipient</li> </ul>	<ul> <li>Think about the audience and purpose</li> <li>Open with a welcome/greeting – e.g. 'Good afternoon ladies and gentlemen'</li> <li>Outline what the speech will be about: 'I will talk to you about</li> <li>Make 3/4 key points and expand on them.</li> <li>Conclusion to summarise ideas</li> <li>End acknowledging the audience: 'Thank you for listening.'</li> <li>DAFORREST techniques</li> </ul>	<ul> <li>Introductory paragraph which provides an</li> <li>Overview of film/product.</li> <li>Middle paragraphs provide positives and negatives.</li> <li>Conclusion to summaris ideas and give a recommendation</li> <li>Make your opinion clear</li> <li>Upbeat and engaging</li> <li>DAFORREST techniques</li> </ul>

#### Year 8 Term 4

Your teacher will tell you which topic you should revise. Read and learn all the information in the topic, ready for a Quiz in lesson.

#### **Topic 2: Manchester Bombings**

- An **explosion** went off just after 10:30pm on Monday 22 May as people were leaving the Manchester **Arena**.
- Twenty-two people died and more than 50 people were **injured**. Some of those involved were children.
- Those who were hurt were looked after at local hospitals.
- The Queen visited one of the hospitals, and the UK Prime Minister Theresa
  May thanked the emergency services for working "tirelessly" to help people
  after the attack.
- The police have said the man **responsible** died in the attack.
- Lots of people were given help very quickly by emergency services rushing to the area.
- Around 400 **police** officers worked through the night.
- In order to help, nearby hotels opened their doors to help people and a **help centre** has been set up by the police for anyone who was lost or injured.
- Taxi drivers came out to work for free, to give people a lift home.
- Greater Manchester Police thanked the emergency services and all the people who helped others.







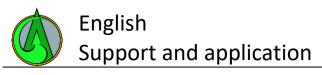
#### **Topic 3: Hillsborough Disaster**

On 15 April 1989, at an FA Cup semi-final, Liverpool **supporters** gathered on the terraces of Sheffield Wednesday's ground, Hillsborough Stadium. The **crowding** turned into a crush and 96 people died, with hundreds more being **injured**.

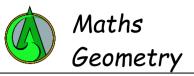
- A formal **investigation**, called an inquest, decided that those who died at Hillsborough were **unlawfully** killed. This means that their deaths were not an accident, but that organisations made mistakes that led to the disaster.
- More than 24,000 Liverpool fans travelled to Sheffield for the 1989 FA Cup semi-final match against Nottingham Forest.
- Families of the people who died campaigned for many years to find out what happened on the day of the disaster.
- After it happened, there was a big investigation into what had gone wrong.
- This original investigation, called an **inquest**, came to the decision that the deaths had been an **accident** and that no-one was to blame.
- Many were angry and thought that the disaster hadn't been properly investigated.
- People were also upset when some police and newspapers said that the fans themselves were to **blame**.
- In 2012, a High Court decided that the conclusions made by the investigators were not satisfactory, and that another inquest was needed.







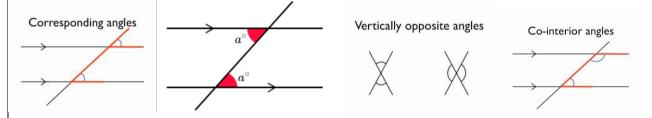
Vocabulary	Wider Research	Apply
1. Link 2. Context 3. Validity 4. Intentions 5. Article 6. Pathos 7. Comparison 8. Poetry 9. Purpose 10.Politician 11.Journal 12.Factual 13.Interview 14.Language 15.Bias 16.Letter 17.Speech 18.Vocabulary 19.Argument	<ul> <li>https://www.bbc.co.uk/news/uk-england-merseyside-47697569 - Hillsborough disaster timeline. Recreate the timeline</li> <li>https://www.liverpoolfc.com/hillsborough - How have Liverpool FC remembered the victims</li> <li>https://www.theguardian.com/football/2023/jan/31/police-chiefs-apologise-for-hillsborough-failures How have the Guardian reported the police response to the disaster</li> <li>https://www.telegraph.co.uk/news/manchester-arena-bombing-inquiry-victims-salman-abedi-video/</li> <li>https://www.bbc.co.uk/news/uk-40012738 - Who were the victims</li> </ul>	<ul> <li>Write a diary entry from the point of view of a Hillsborough survivor</li> <li>Create a newspaper report that details the key facts about the Hillsborough disaster</li> <li>Write a letter of apology to the survivors from the local government</li> <li>Research how football stadiums have changed since the Hillsborough disaster</li> <li>Create a poster raising money for those impacted in the Manchester bombings</li> <li>Design a memorial for the people who died in the Manchester bombing – this can be in any format.</li> </ul>



#### Topic 1: Lines and Angles

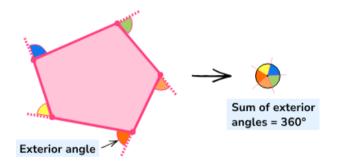
#### Angles in parallel lines

Parallel lines are lines in the same plane that go in the same direction and never intersect. When a third line, called a transversal, crosses these parallel lines, it creates angles. Some angles are equal, like vertical angles, corresponding angles and alternate angles. There are also co-interior angles which for a C-shape and both angles add up to 180.



#### Exterior angles

If the side of a polygon is extended, the angle formed outside the polygon is the exterior angle. The sum of exterior angles of a polygon is 360°. The formula for calculating the size of an exterior angle is: exterior angle of a polygon = 360 ÷ number of sides.



Polygon Name	Number of Interior Angles	Sum of Interior Angles = (n-2) x 180°
Triangle	3	180°
Quadrilateral	4	360°
Pentagon	5	540°
Hexagon	6	720°
Heptagon	7	900°
Octagon	8	1080 <sup>°</sup>
Nonagon	9	1260 <sup>°</sup>
Decagon	10	1440

#### Interior angles

An angle is defined as the figure formed by joining the two rays at the common endpoint. An interior angle is an angle inside a shape. The polygons are the closed shape that has sides and vertices. To find the sum of interior angles of a polygon, multiply the number of triangles in the polygon by  $180^{\circ}$ . The formula for calculating the sum of interior angles is  $(n-2) \times 180^{\circ}$  where is 'n' the number of sides. All the interior angles in a regular polygon are equal.

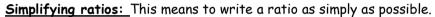


#### Topic 2: Simplify and Share ratio

A ratio is a mathematical way to compare quantities. To help you understand what a ratio is, look at the photo of the two giraffes. Can you see that the bigger giraffe is about three times bigger than the smaller giraffe? Mathematically, we would say that the ratio of the big giraffe to the small giraffe is three to one. When you write a ratio, you need to use the colon symbol (:). You read this as 'to'.

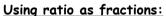
The ratio of the big giraffe to the small giraffe is 3:1

The ratio of the small giraffe to the big giraffe is 1:3



Simplify the ratio 4:20. You can simplify a ratio in the same way you simplify a fraction. The highest common factor is 4, so divide both numbers by 4. The answer is 1:5

Simplify 12:32. You may want to this in more than one step. First divide each number by 2. 6:16, now divide by 2 again. 3:8. Can you simplify this any further? No, so the answer is 3:8.



If a garden is to be divided into lawn and shrubs in the ratio 3:2, what fraction of the garden is lawn and what fraction of the garden is shrubs?  $\frac{3}{5}$  would be lawn and  $\frac{2}{5}$  would be shrubs. This is because the denominator of a fraction shows you the total amount all parts add up, and in this case the total amount of the garden is 3 parts lawn plus two parts shrubs, hence our denominator is 5.

#### How to divide/share an amount into given ratios:

Divide £28 in the ratio

Step 1) find out how many parts you are sharing the £28 by. Add the ratios together 4+3=7, so there are 7 parts.

Step 2) find the value of one part. Divide the amount by the number of parts.  $28 \div 7 = 4$ , so one part = £4

Step 3) multiply each ratio by the one part

 $4 \times 4 = 16$  and  $3 \times 4 = 12$ 

The answer is £16: £12

You can check your answer by adding together both parts and seeing if it equals the original amount. £16 + £12 = £28





#### Topic 3: Expressions and Equations

#### Algebraic Powers

Powers are values that show how many times to multiply a base number by itself. For example,  $4^3$  is telling you to multiply four by itself three times. The number being raised by a power is known as the base, while the superscript number above it is the power. We use powers in algebra, the letter has a value that we do not know, otherwise known as a variable, we can use powers to show when a variable is multiplied by itself multiple times. For example  $a \times a \times a$  can be written as  $a^3$ .

#### Expressions and Brackets

An expression is made up of terms which can include letters and numbers. It is a statement that has a minimum of two numbers, or variables, or both and an operator connecting them. To expand a bracket means multiplying each term in a bracket with the term outside. In the example on the right, We need to multiply the two terms inside the bracket by 3.

Expanding brackets

$$3(2x+1) = 6x + 3$$

Factorising

#### Factorising Expressions

Factorising an expression is the opposite of expanding brackets. We need to find the highest common factor (HCF) of each term and this will be our term outside of the brackets. Then we need to fill in each term in the brackets by multiplying out.

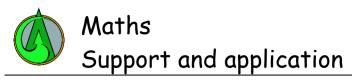
$$3x+6 = 3(x+2)$$

#### One-step and Two-step equations

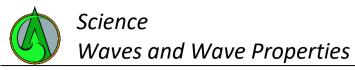
A one-step equation is an algebraic equation you can solve in one step and a two-step equation can be solved in two. Once you've solved it, you've found the value of the variable that makes the equation true. To solve these equations you need to use the inverse operation on both sides of the equation. The inverse operation means the opposite, for example: the inverse of + is -.

Example: 4a + 10 = 26

- For the first step, we would subtract 10 from both sides to make 4a = 16
- In the second step we need to divide by 4 because 4a means ' $4 \times a$ ' or four lots of a. When we divide by 4 we get a = 4.



Vocabulary	Wider Research	Apply
Parallel	Topic 1	Topic 1
Transverse Corresponding Alternate Co-interior Equal Ratio Share Divide Quantity Simplify	<ul> <li>https://corbettmaths.com/wp-content/uploads/2013/02/angles-in-polygons-pdf2.pdf</li> <li>https://corbettmaths.com/wp-content/uploads/2013/02/angles-in-parallel-lines-pdf1.pdf</li> <li>Topic 2</li> <li>https://corbettmaths.com/2013/03/03/simplifying-ratio/</li> </ul>	<ul> <li>https://corbettmaths.com/wp-content/uploads/2023/09/Angles-Polygons.pdf</li> <li>https://corbettmaths.com/wp-content/uploads/2023/11/angles-parallel-lines.pdf</li> <li>https://corbettmaths.com/wp-content/uploads/2013/02/simplifying-ratios-pdf1.pdf</li> <li>https://corbettmaths.com/wp-content/uploads/2013/02/ratio-sharing-the-total-pdf.pdf</li> </ul>
Equation Linear Inverse Power Expression Factorise Factor Operation	<ul> <li>https://www.bbc.co.uk/bitesize/guides/zpx yrwx/revision/4</li> <li>Topic 3         <ul> <li>https://corbettmaths.com/2013/03/13 /laws-of-indices-algebra/</li> <li>https://corbettmaths.com/2013/12/23 /expanding-brackets-video-13/</li> </ul> </li> </ul>	<ul> <li>Topic 3</li> <li>https://corbettmaths.com/wp-         content/uploads/2013/02/laws-of-indices-pdf.pdf</li> <li>https://corbettmaths.com/wp-         content/uploads/2013/02/expanding-brackets-pdf1.pdf</li> <li>https://corbettmaths.com/wp-         content/uploads/2020/05/Factorisation.pdf</li> </ul>
	<ul> <li>https://corbettmaths.com/2013/02/06/factorisation/</li> <li>https://corbettmaths.com/2012/08/24/solving-equations/</li> </ul>	https://corbettmaths.com/wp- content/uploads/2020/10/Equations-pdf.pdf



#### **Topic 1: Waves**

#### Sound

- Sounds are produced by vibrations.
- Sound waves are longitudinal waves
- Sound travels as waves, which are vibrating particles.
- Sound waves are reflected by surfaces.
- Sound waves travel at 343 m/s through the air and faster through liquids and solids.
- Surfaces reflect sound waves:
- Hard surfaces reflect sound well, making echoes.
- Soft surfaces, like curtains and carpets, reflect very little sound. They absorb the sound instead, so there are no echoes.

#### **Light**

- Light waves travel in straight lines.
- Light waves are transverse waves
- Light waves travel faster than sound waves.
- Light waves don't always need particles to travel through. They can also travel through outer space or a vacuum.
- Light waves travel in straight lines. You can detect them with your eyes, and also with instruments such as cameras. They are reflected by mirrors and change direction when they travel from the air into glass or water.
- Light travels very fast. It has a speed of 300 million metres per second in a vacuum.
- Refraction is when the direction that light travels in changes as light moves form one material to another.
- Reflection is when light bounces off an object.

#### Transmission of light through materials

- When light moves through a transparent (or semitransparent) material, it can be transmitted, absorbed, or reflected. The transmittance of a material is the proportion of the incident light that moves all the way through to the other side.
- **Specular reflection** is when light reflects off of a shiny surface like a mirror.
- **Diffuse reflection**, however, is when light illuminates a dull object.

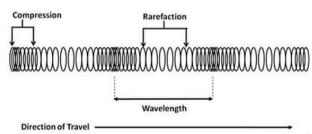
Within the visible light range of the electromagnetic spectrum, there is a spectrum of colour. This is a continuous range of colours. In order of increasing frequency and decreasing wavelength these are given as: Red, orange, yellow, green, blue, indigo and violet. Each colour within the visible light spectrum has its own narrow band of wavelength and frequency

# Reflective Surface Incident Wave Angle of Reflection Reflected Wave Eye

#### **Transverse waves**

# WAVE CREST WAVE LENGTH AMPLITUDE WAVE HEIGHT WAVE TROUGH

#### Compression (Longitudinal) Wave



### Matter – Periodic table and elements

Year 8 Term 4

#### Your teacher will tell you which topic you should revise. Read and learn all the information in the topic, ready for a Quiz in lesson.

#### **Topic 2: Periodic table**

#### Periodic table

All the different elements are arranged in a chart called the periodic table. A Russian scientist called Dmitri Mendeleev produced one of the first practical periodic tables in the 19th century. The modern periodic table is based closely on the ideas he used:

- the elements are arranged in order of increasing atomic number
- the horizontal rows are called periods
- the vertical columns are called groups
- elements in the same group are similar to each other

#### Metals are:

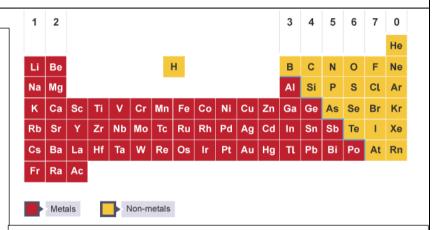
• shiny, good conductors of heat and electricity and malleable (they can be bent and shaped without breaking)

#### Non-Metals are:

• Dull, poor conductors of heat and electricity and weak and brittle (they easily break or shatter when solid)

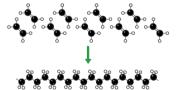
#### **Ceramics and Composites**

- Ceramics are solids made by baking a starting material in a very hot oven or kiln. They are hard and tough with different uses. There are ceramic materials coated in a tough glaze in bathrooms. They are hard and tough, and waterproof.
- Composite materials are made from two or more different types of material. For example,
   MDF is made from wood fibres and glue, and fibreglass is made from a mesh of glass fibres set in a tough polymer.
- The materials for a composite material are chosen because they have different properties that combine to make a more useful material. Steel-reinforced concrete is a composite material. It is made by pouring concrete around a mesh of steel cables. When the concrete sets, the material is:
  - ✓ strong when stretched (because of the steel)
  - √ strong when squashed (because of the concrete)



#### **Polymers**

 Polymers are made by chemical reactions that join lots of small molecules together to make long molecules. For example, a molecule of poly(ethene) is made by joining thousands of ethene molecules together. Long molecules like these give polymers their properties.



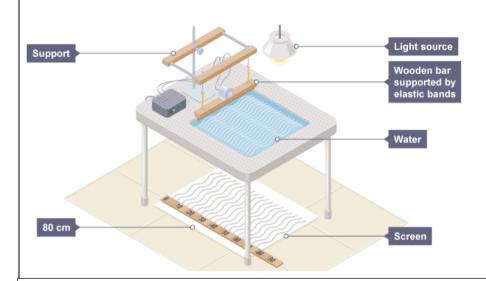
Ethene molecules join together to make long molecules of poly(ethane).

#### **Properties of polymers**

- chemically unreactive
- solids at room temperature
- plastic they can be moulded into shape
- electrical insulators
- strong and hard-wearing

#### **Topic 3: Core Practical**

<u>Investigating waves</u> - To measure the frequency, wavelength and speed of waves in a ripple tank.

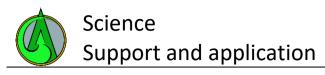


#### Method

- Set up the ripple tank as shown in the diagram with about 5 cm depth of water.
- Adjust the height of the wooden rod so that it just touches the surface of the water.
- Switch on the lamp and motor and adjust until low frequency waves can be clearly observed.
- Measure the length of a number of waves then divide by the number of waves to record wavelength. It may be more practical to take a photograph of the card with the ruler and take your measurements from the still picture.
- Count the number of waves passing a point in ten seconds then divide by ten to record frequency.
- Calculate the speed of the waves using: wave speed = frequency × wavelength.

#### **Application**

- What are the dependent and independent variables during this practical?
- What results can be obtained from doing the wave practical?
- Why is it suggested that you take a picture of the card during the practical?
- How can the results of the practical be made more accurate and reliable?
- Suggest a method for measuring the wave speed in a solid. How does this differ from the method used for measuring the wave speed in a liquid?



Vocabulary	Wider Research	Apply
1) Polymer	Provide definitions for each key words in	Although some insects can see a wider range of colours, their vision isn't as sharp as
2) Composite	the vocabulary section	ours. Why doesn't this matter?
3) Ceramic		
4) Longitudinal	https://www.bbc.co.uk/bitesize/guides/ztxn	The ozone layer filters out most of the UV radiation reaching the Earth. Why has there
5)Transverse	<u>sbk/revision/3</u> - Ceramics, polymers and	been concern recently about the release of chemicals that damage the ozone layer?
6) Amplitude	composites	
7) Wavelength		Draw a picture of a transverse wave. Now draw a second wave that's has twice the
8) Frequency	https://www.bbc.co.uk/bitesize/guides/z84	wavelength and the amplitude of the first one.
9) Malleable	wjxs/revision/1 - The periodic table	
10) Ductile		• The word transverse means across. Why are these waves known as transverse waves?
11) Sonorous		
12) Compression	https://www.bbc.co.uk/bitesize/topics/zw98	Why are both longitudinal and transverse waves known as energy carriers?
13) Rarefaction	2hv/articles/z7rtng8 - Light waves and colour	
14) Diaphragm		Sketch a cross-sectional view of a water wave and show on it how you would measure
15) Signal		
16)Energy transfer	https://www.bbc.co.uk/bitesize/topics/zw98	- The wavelength
17) Microphone	2hv/articles/z27mgdm - light waves	- The amplitude
18) Cellulose		
19) Hertz		
20) Medium	https://www.bbc.co.uk/bitesize/topics/zw98	
21) Ultrasound	2hv/articles/z8mmb82 - sound waves	
22) Trough		
23) Atomic number		
24) Alkali metals		
25) Physical properties		
26) Chemical properties		
27) Halogens		
28) Toxic		
29)Ratio		
30) Polythene		
1		

# MFL - French Vocabulary.

J'adore les fêtes! (I love celebrations/festivals!)

#### Revise your French vocabulary and make a poster or a mind map. Get ready for an assessment each term.

Topic 1: La fête de la musique. The music festival.

#### **D2M2U2:** La fête de la musique. The music festival.

• J'attends la fête avec impatience. I am looking forward to the festival.

• Je vends des disque vinyles. I sell records.

Je finis à midi. I finish at lunchtime.

Je choisis un groupe de rock. I choose a rock group.

J'écoute un rappeur.

I listen to a rapper.

• Je préfère la fanfare. I prefer the brass band.

• Ma mère chante dans la chorale. My mum sings in the choir.

• Mon frère choisit un groupe folk. My brother chooses a folk group.

• Le matin (in) the morning. L'après-midi (in) the afternoon.

• **Le soir** (in) the evening.

#### GRAMMAIRE. -er, -ir and -re verbs in the present tense.



Most French verbs are regular -er verbs (manger, aimer, jouer).

There are two more types of regular verbs: -ir (choisir) and -re (attendre).

To conjugate these verbs in the present tense take **-er, -ir** or **-re** off the end of the infinitive and add the Present tense endings.

The il/elle/on form or -re verbs has no ending.

Some forms are spelled differently but sound the same. ex. choisis/ choisit or attends/attend.

Present tense verbs can be translated in two ways. ex. J'attends= I wait or I am waiting for.

#### Regular -er, -ir and -re verbs follow these patterns in the present tense. Try to learn them.

	dans <b>er</b> (to dance)	fin <b>ir</b> (to finish)	vend <b>re</b> (to sell)
Je (I)	dans <b>e</b>	fin <b>is</b>	vend <b>s</b>
Tu (you informal, singular)	dans <b>es</b>	fin <b>is</b>	vend <b>s</b>
il/elle/on (he, she, we)	dans <b>e</b>	fin <b>it</b>	vend
nous (we)	dans <b>ons</b>	fin <b>issons</b>	vend <b>ons</b>
vous (you plural, polite, formal)	dans <b>ez</b>	fin <b>issez</b>	vend <b>ez</b>
ils/elles (they)	dans <b>ent</b>	fin <b>issent</b>	vend <b>ent</b>

#### Revise your French vocabulary and make a poster or a mind map. Get ready for an assessment each term.

#### Topic 2: Revision OF KEY WORDS/ EXPRESSIONS to prepare for writing assessment.

#### **Opinion phrases:**

J'aime = I like

J'adore = I love

**Je préfère** = I prefer

Je n'aime pas = I don't like

Je déteste = I hate

#### Reason phrases:

parce que / car = because

c'est = it is

un peu = a bit

très = very

trop = too

vraiment = really

amusant = fun

**génial** = great

intéressant = interesting

sympa = nice

ennuyeux = boring

**nul** = rubbish

# Aim to MEMORISE the content of this page!

#### **Connectives:**

Et = and

Aussi = also

Mais = but

**Cependant** = however

#### **Sequencers:**

D'abord = first of all

Après = after(wards)

**Ensuite** = next

**Puis** = then

Finalement = finally, last of all

J'adore les fêtes! (I love celebrations/festivals!)

Revise your French vocabulary and make a poster or a mind map. Get ready for an assessment each term.

Topic 3: Qu'est-ce que tu vas faire ? (What are you going to do ?)

#### **Grammaire:**

#### When do you use the near future tense?

You use the near future tense to say what IS GOING TO HAPPEN or what YOU ARE GOING TO DO.

#### How do you form the near future tense?

You use:

A subject +	"aller" in the +		the infinitive form o	
	present tense		the verb	

example:	je	vais	visiter
	I	am going	to visit
	je	vais	manger
	1	am going	to eat

#### Boire (to drink) in the near future tense

Je vais boire I am going to drink

You (singular, informal) are going to drink Tu vas boire He/she is we are going to drink Il/elle/on va boire

Nous allons boire We are going to drink

Vous allez boire You (plural, formal, polite) are going to drink

They (masc./ fem.) are going to drink Ils/elles vont boire

#### Qu'est-ce que tu vas faire ? (what are you going to do ?)

Je vais ... I am going ...

visiter le marché de Noël. to visit the Christmas market.

acheter un cadeau. to buy a present.

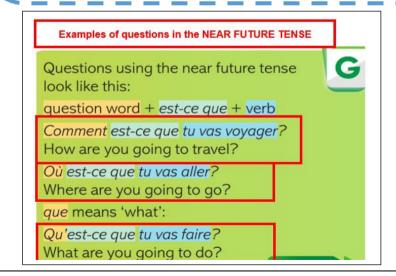
to admire the illuminated admirer les maisons illuminées.

houses.

écouter des chorales. to listen to some choirs.

manger une tarte flambée. to eat a pizza like tart.

boire un jus de pomme chaud. to drink a hot apple juice.



#### Weather and climatic extremes around the world

Your teacher will tell you which topic you should revise. Read and learn all the information in the topic, ready for a Quiz in lesson.

#### **Topic 1: Weather and climate**

#### **Weather and Climate**

The difference between weather and climate is a measure of time.

- Weather is the condition of the atmosphere over a place for a short period of time, day to day.
- **Climate** is the state of the atmosphere over longer periods of time. Climate is the average conditions, normally calculated over 30 years.

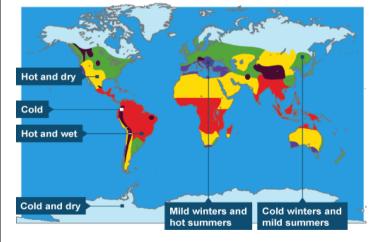
Climate could be a very hot summer whereas weather would be what you see within a day, for example, a hot day with a sudden thunderstorm.

#### Weather

The key elements of the weather are: temperature; precipitation (rain, snow, sleet, or hail), air pressure; wind, humidity, sunshine, and drought.

The weather affects us all every day. The Earth's atmosphere produces an incredible range of weather phenomena. On a local level, we may feel a gust of wind that lasts just a few seconds. On a global scale, the circulations of huge tropical masses of air determine whole regional climates and weather systems. In some cases, weather can be a hazard and in others weather can be used to create energy – for example using wind turbines or solar panels.





#### Climate

The climate of the UK is **variable** – it changes a lot, day to day. The UK has cool summers, mild winters and rainfall spread evenly throughout the year. The climate type is classified as temperate, which means we rarely experience extremes of weather.

On a global scale, climate varies dramatically depending on where you are in the world. The world can be divided into different 'climate zones' with their own distinctive pattern of temperature and rainfall. These climate zones have been created due to a range of factors, in particular because the Sun heats tropical areas more strongly than polar areas. Because of the angle of the sun, places nearer the Equator are much warmer than places nearer the Poles. Climate is also determined by the height of an area (the altitude), the direction from which the wind blows (known as the prevailing winds) and the distance from the sea.

#### Weather and climatic extremes around the world

Year 8 Term 4

#### Your teacher will tell you which topic you should revise. Read and learn all the information in the topic, ready for a Quiz in lesson.

#### **Topic 2: Tropical storms**

#### **Distribution of Tropical Storms**

Tropical storms are known by many names, including hurricanes (North America), cyclones (India) and typhoons (Japan and East Asia). They all occur in a band that lies roughly 5-15°C either side of the Equator.

Scientists believe that global warming (heating of the world) is having an impact on the frequency, strength and distribution of tropical storms. This may be due to an increase in ocean temperatures. Climate change could therefore lead to tropical storms in more and different locations.

- Warmer seas could allow the storms to extend further north and south of the equator.
- Low-lying coasts where many people live are most at risk.
- Climate change may increase or decrease the number of hurricanes, but it is likely that their intensity will increase.
- Rising sea levels will make tropical storms more damaging, increasing coastal flooding.

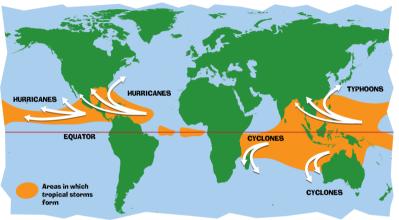
#### The primary impacts of tropical storms are:

- The immediate effects of strong winds, high rainfall and storm surges.
- Buildings and bridges can be destroyed, people can get into difficulties in the water, and roads and railways can become damaged.
- Power cables and telephone lines come down, crops are ruined, and water and sewage supplies are affected. Coastal habitats like beaches and mangroves can be damaged by storm surge floods.

#### Secondary effects include:

- Landslides which can cause people to become homeless and can block roads and railways. This can cause evacuation problems and difficulties for the emergency services.
- There can also be food and clean water shortages.

#### **Distribution of Tropical Storms**



#### The conditions required for a tropical storm

Sea temperatures are high

Warm tropical waters (over 27°C) encourage evaporation and air to rise causing low pressure to form and winds to flow into centre of rising air.

Huge clouds and strong winds form

The amount of water evaporated makes huge storm clouds which start to spin and draw up more water and increase wind speeds. A calm eve forms in the middle of the storm.

Storm hits land

The storm gathers energy travelling over the sea and hits land bringing heavy rain, extremely high winds and a storm surge. The storm declines as it moves over land.

#### **Topic 3: Drought**

Droughts occur when there is abnormally low rainfall for an extended period of time.

Droughts can last from weeks to months and even years.

Droughts can occur all over the world. However, there is a link between drought and some climate patterns. A lack of water vapour in the atmosphere means there is less precipitation and more chance of drought. High-pressure systems reduce evaporation and moisture in the atmosphere.

#### There are three main types of drought:

Meteorological drought – when the amount of precipitation received in a specific area is less than the average. Hydrological drought – when reduced precipitation impacts on water supply, eg there is decreased streamflow, soil moisture, reservoir and lake levels, and groundwater.

Agricultural drought – when the above two types of drought impact on agricultural activities, eg reduced soil moisture or reservoir levels required for irrigation.

#### Impact of human activity on drought:

It is predicted that climate change will cause some places around the world to get hotter, which will increase evaporation and some to receive less rainfall, both increase the risk of drought.

#### Other human activities that can increase the impact of drought:

Agriculture – using large amounts of water to irrigate crops removes water from lakes, rivers and groundwater. Some crops require more water than others, eg cotton.

Dam building – large dams can be built across a river to produce electricity and store water in a reservoir. This can reduce river water flowing downstream and cause drought below the dam.

Deforestation – removing trees can reduce the amount of water stored in the soil as rain tends to fall and wash off the land as surface run-off. This leaves the ground vulnerable to erosion and desertification which can lead to drought.







# Geography Extreme Weather

Vocabulary	Wider Research	Apply
1) Air pressure	Met Office Learn about the weather:	- whit
2) Anticyclone	https://www.metoffice.gov.uk/learning/learn-about-the-weather	Explain the difference between weather and climate.
3) Bushfire	netporp www.metomeeigovany.reaming/ream about the weather	2) Describe the climate of the UK.
4) Climate change	BBC KS3 Bitesize collection of video clips on tropical storms:	3) Why do we predict the weather? Why is it important?
5) Cold front	https://www.bbc.co.uk/bitesize/guides/zrv4jxs/revision/1	4) Describe the distribution of tropical storms (where do they
6) Condensation	THE BOTT TO THE BOTTON TO THE	happen throughout the world?).
7) Convectional	Tropical storms:	5) Research a tropical storm of your choice and create a news
rainfall	https://www.who.int/health-topics/drought#tab=tab 1	report to show the following:
8) Coriolis effect	interpolify with the interpolity in cultinate to proof an outgittenate tab_1	Location
9) Cyclone	Drought – World Health Organisation:	Effects of the storm
10) Depression	https://www.who.int/health-topics/drought#tab=tab 1	Short-term impacts of the storm
11) Drought		Long-term impacts of the storm
12) Evaporation	Bushfires in Australia:	Long term impacts of the storm
13) Flood	https://www.bbc.co.uk/news/world-australia-50951043	Answer the following exam questions:
14) Frontal rainfall		Describe the climate of the UK. [3 marks]
15) Heatwave	Flooding:	2) Describe the conditions needed for a tropical storm to
16) Humidity	https://www.metoffice.gov.uk/weather/learn-about/weather/case-	form. [3 marks]
17) Hurricane	studies/floods	3) Explain how climate change is increasing the risk of tropical
18) Physical		storms. [4 marks]
19) Precipitation	Check for flooding in the UK:	4) Describe the impacts of drought. [3 marks]
20) Relief rainfall	https://check-for-flooding.service.gov.uk/	5) Assess the extent to which climate change is increasing the
21) Response		frequency of drought events around the world. [6 marks]
22) Snowstorm	The Beast from the East:	
23) Somerset	https://www.metoffice.gov.uk/weather/learn-	
24) Storm surge	about/weather/atmosphere/air-masses/beast-from-the-east	
25) Tornado		
26) Tropical storm		
27) Typhoon		
28) Warm front		
29) Wildfire		
30) Wind		



#### Topic 1: The Long and Short Term Causes of WW1

#### **Background**

By 1914, the six most powerful countries in Europe were divided into two alliances:

- The Triple Entente France, Britain and Russia
- The Central Powers Germany, Austria-Hungary and Turkey

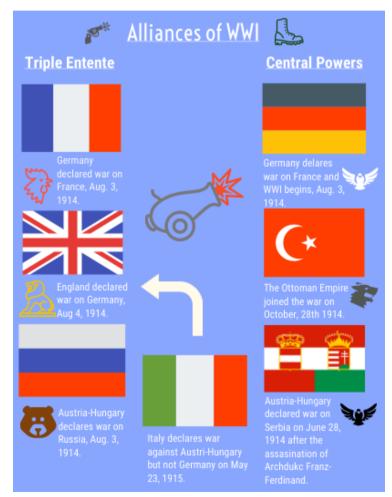
#### **The Long Term Causes**

There were many long term causes of the first world war but these can be summarised into 4 reasons:

- O Alliances countries were 'friends' with one another and promised to help if war broke out
- Militarism countries in Europe were proud of their militaries and had been building up a stock-pile of weapons
- o Nationalism the belief that your country is better than any other
- Imperialism different European countries were building their empires and they often wanted to take over the same land

#### **The Short Term Causes**

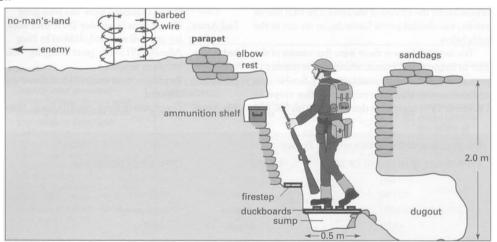
- The short-term 'spark' that started the war was the assassination of Arch Duke Franz Ferdinand.
- The arch Duke was the son of the Emperor of Austria-Hungary. The killer was a Serbian called Gavrilo Princip. Serbia hated Austria Hungary because they controlled their country.
- This caused the following chain of events:
- 1. Austria-Hungary declares war on Serbia
- 2. Germany declares war on Russia
- 3. Germany declares war on France
- 4. Britain declares war on Germany
- 5. Austria Hungary declares war on Russia
- 6. France declares war on Austria-Hungary
- 7. Britain declares war on Austria-Hungary



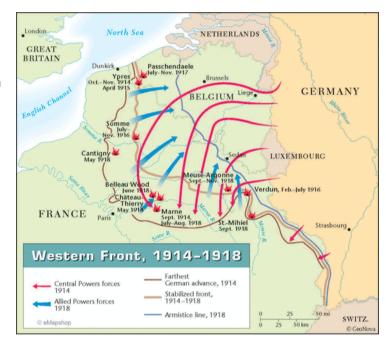


#### **Topic 2: Trench Warfare**

- The Great War was fought mainly in Europe. The areas where the armies fought each other were called 'fronts'. The longest was called the Western Front (in Belgium and France).
- In September, the Germans dug the first trenches of the war to protect the land they had won. By November 1914 the line of trenches of both sides stretched 400 miles from Switzerland to the English Channel.



- Trenches were protected with sandbags and barbed wire. They were defended by men with rifles, bayonets, machine guns and grenades. The enemy did the same.
- In between was an area called no man's land, a dead world littered by bomb craters and dead bodies.
- Trenches were zig-zagged so that gas, bullets and explosions could not spread along the line.
- They worked as the war lasted 4 long years.



Advantages	Disadvantages
Easy to make and defend	No running water
The armies had millions of	No protection from direct
men to build them	hit
Cheap to build	Filthy and waterlogged
Protection from gunfire	Could collapse easily

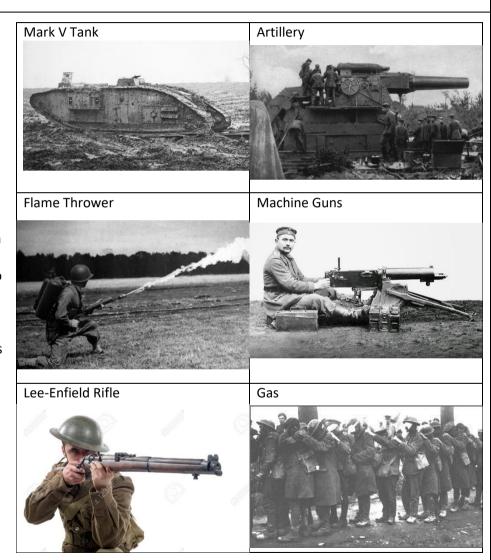


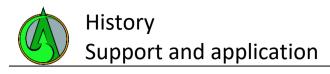
#### Topic 3: The Weapons of the First World War

- WW1 was one of the first 'industrial wars'. This meant that each side had modern factories to supply them with millions of guns, shells and bullets.
- Because trench warfare was so effective at defending armies, each side developed new, more powerful and destructive weapons:
  - Tanks were first invented in WW1
  - o Machine guns killed millions
  - o Chlorine and mustard gas were used
  - o Air ships were used as weapon
- Tanks were introduced in 1916. They could only travel 8 miles an hour but the British and French had 5000 of them. They were used to crush barbed wire and machine gun 'nests'.
- Flame throwers were a much feared weapon. They could shoot a sheet of flame up to 15 metres. Enemy soldiers tried to shoot the oil canister before they got in range.
- Gas was first used by Germany in April 1915. Breathing in Mustard gas resulted in soldiers coughing up the lining of their lungs.
- The British Infantry gun was a Lee Enfield rifle. Their machine gun was called a Vickers Gun.
- Artillery was a destructive weapon. Over 400,000 shells were fired each month. They caused an illness called 'shell-shock'.

#### **Air Power**

- Planes had only been invented in 1903 so they were not used much as weapons in WWI.
- Tri-planes were used on the battlefield to observe the opposition trenches after and artillery bombardment.
- Airships were used to deliver bombs and gas.





Vocabulary	Wider Research	Apply			
1) Imperialism		1. Highli	ght your knowledge orga	aniser in two diffe	erent colours to show
2) Nationalism	https://www.bbc.com/bitesize/articles/znhhrj6	short	and long-term causes.		
3) Alliances					
4) Militarism		<ol><li>Make</li></ol>	notes on the key individu	uals and countries	involved.
5) Catalyst	https://www.bbc.com/bitesize/articles/z8sssbk				
6) Aggression			up a diagram of the trenc		
7) Patriotism		the lir	nks on the knowledge org	aniser. Add notes	about each feature of
8) Heroism	https://www.bbc.com/bitesize/articles/zs666sg	a trer	nch <u>system</u> .		
9) Shame					
10) Pals Battalions			knowledge organiser, th		_
11) Trench	https://www.youtube.com/watch?v=dHSQAEam2yc		disadvantages of trenches is displayed in a table. This is a grea		• ,
12) Defence		•	nt information that make	•	
13) Parapet		advar	ntages and disadvantages	and then try to re	plicate the table on
14) Duckboard	https://www.bbc.co.uk/bitesize/guides/z4n4jxs/revision/1	your	own.		
15) Stalemate					
16) No-mans-land			e are some great films and		
17) Attrition	https://www.bbc.co.uk/bitesize/guides/z4n4jxs/revision/2	for them on YouTube or Netflix. Watching these will give you a re			
18) Weapon		good	understanding of what lif	e was like in the t	renches.
19) Destruction					
20) Artillery	https://www.bbc.co.uk/bitesize/guides/z4n4jxs/revision/3	6. During the rest of your research about WW1, make a note of all			
21) Zeppelin		•	ons that you read, see a	nd hear about. Co	omplete the following
22) Cowardice		table:			
23) Shell Shock	https://www.bbc.co.uk/bitesize/guides/z4n4jxs/revision/4		1 1	1 - 4:00	T = 6 (122
24) Court Martial		Weapon	Firepower /100	Range /100	Defence /100
25) Futile					
26) Armistice	https://www.bbc.co.uk/bitesize/guides/z4n4jxs/revision/5				
27) Poppy					
28) Consequence					
29) Conscientious					
objector					
30) General Haig					