

Knowledge Organisers

Year 7

Spring Half Term 2

'Practice of what is taught'

Name:
Гutor:
House:

Year 7 - Painting

Key knowledge & skills

Understand basic COLOUR
THEORY. Look at primary,
secondary and tertiary colours
and how you can create them.
Learn how to mix paint and use a
brush correctly. Understand
what tints and shades are and
how you can make these to
create a wider range of colours.







To look at the works of different painters from the impressionist and post-impressionist art movement. To understand their styles and techniques. To analyse their work and learn how to paint using their specific brush stroke techniques.

Understanding how to compose a still life for a painting. Using and developing your skills in observational drawing to record this still life for your final painting.







Applying the skills and techniques of the artist/ artists and the skills in colour mixing that you have learnt this project to your final outcome.





Key Artists



Vincent Van Gogh

Vincent van Gogh (Vincent Willem van Gogh). Born March 30, 1853, Zundert, Netherlands—died July 29, 1890. Dutch painter, generally considered one of the greatest of the Post-Impressionists. He is most well known for his use of expressive brush strokes and impasto paint (thickly applied) most famously seen in his work 'Starry Night'. Van Gogh struggled with his mental health during his life and art became a therapeutic part of his time in institutions. He is famous for having cut of part of his ear, and produced self portraits that showed this.



George Seurat

Georges Seurat was born December 2, 1859, Paris, France—died March 29, 1891, Paris. He was famous for his use of tiny brush strokes layered on top of one another to show how light played on the scenes he painted, most commonly known as pointillism. His work was large scale and often took months if not years to complete.



Claude Monet

Oscar-Claude Monet born 14 November 1840 – died 5 December 1926.A French painter and know as the 'father of Impressionism', an art movement that was designed to show the atmosphere of a scene as well as passing time and changes in light. He was famous for 'plein air' painting; painting outdoors in the landscapes. His brush strokes were layered to build depth and detail in his work.



Paul Cezanne

Paul Cézanne born 19 January 1839 – died 22 October 1906. Focusing on his fruit paintings he is a great artist to look at in regards to how to use light and dark within a composition. Cezanne painted in a more abstract (definition- art that does not attempt to represent reality, but rather seeks to achieve its effect using shapes, colours, and textures).

Key terms and techniques

observational drawing shape form line tone sketching tonal shading drawing painting mixing blending brush strokes secondary (two primary colours) tertiary (add more primary to secondary colour) combining pointillism impasto washes tints (white) shades (black) tones (grey) harmonious

Key descriptive words

colour primary secondary complimentary gradient hue light dark tint shade tone shadow highlight strokes dots style direction brush layered strokes dashes pointillism washes impasto mood perspective scale loose stippling bright flicks landscape texture movement portrait sunny swirls focus composition

Computing Knowledge Organiser



Topic: Networks

Rationale: As students using a network in school. How are they used to share information?



Networks and the Internet

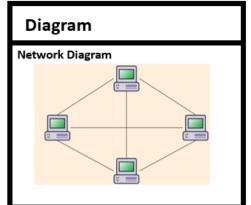
A computer **network** is when two or more computers are packets to allow them to communicate

The internet is a vast network of computers all connected together.

Interconnected Network= Internet

Networks send and receive messages in small units of data known as packets.

Network Hardware Hub Router Server



Wired and Wireless

A computer network can be either wired or wireless.

Wired networks send data along cables. Wireless networks send data through the air using radio waves.





Internet of Things

Any device connected to the internet is part of this network, for example:

- Laptops
- Games consoles
- PCs
- Tablets
 - Mobile phones



World Wide Web

The World Wide Web is part of the internet that contains websites and web pages.

The Internet and the WWW are not the same thing.



<u>Key Words</u>

Network	A computer network is when two or more computers are connected together to allow them to communicate
Protocols	A set of rules which allow device to communicate.
Bandwidth	Amount of data that can per transferred per second.
Connectivity	The state of being connected or interconnected

Subsistence farming

The five seasons of Nepal are

Spring, Summer, Monsoon (rainy

ອຍາເກຮັ້າ ອູບເກເກຮັ້າ, ການກອບຈາກເຂົ້າ season), Autumn and Winter)

Subsistence farming, Is a form of farming in which nearly all of the crops or livestock raised are used to maintain the farmer and the farmer's family, leaving little, if any, surplus for sale or trade. Preindustrial agricultural peoples throughout the world have traditionally practiced subsistence farming



NETS

A net is often called a development net. It is a flat two dimensional shape, which contains score lines and when is folded and glued together forms a three dimensional shape. Nets are often used for packaging items such as orange cartons, point of sale display units, tissue boxes and so on.





Key Words

Cultivated - Land that is worked by ploughing and sowing and raising crops

Agriculture - The cultivation of animals, plants to sustain human life

Communicate - Exchange information

Nepal - Nepal, is a country in South Asia. It is located mainly in the Himalayas.

Container - An object for holding or transporting something

System - A set of things working together as parts of a mechanism or an interconnecting network

Valley - A valley is a low area between hills or mountains





Nepal population is equivalent to 0.39% of the total world population. countries (and dependencies) by population. Nepali is the language of Nepal.

Pulley

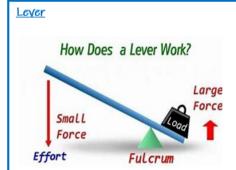
A pulley is a wheel on an axle or shaft that is designed to support movement and change of direction of a taut cable or belt, or transfer of power between the shaft and cable or belt.

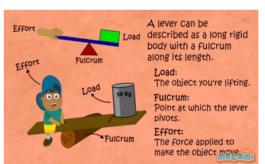












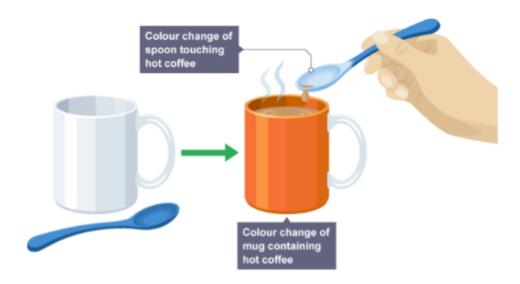


Smart materials

Smart materials are materials that have **properties which change reversibly**, ie can change easily but can then easily change back, depending on **changes** in their surroundings. Here are some examples.

Thermochromic pigments

Thermochromic pigments **change colour at specific temperatures**. Examples include colour-changing novelty mugs, colour-changing spoons, battery power indicators and forehead thermometers.



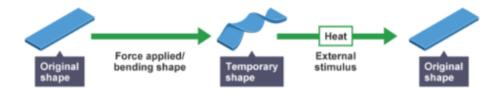
Photochromic pigments

Photochromic pigments **change colour when exposed to light**. This can be used in clothing but is most commonly found in photochromic lenses for glasses, which darken when exposed to ultraviolet light. This means that these glasses act as sunglasses on sunny days, but quickly change back to normal glasses when the lenses are no longer in sunlight.



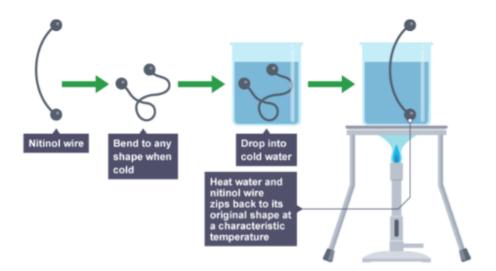
Shape memory polymer

Shape memory polymer is a polymer that can be bent out of its original shape and then returned to its original shape when heated. Potential applications for this include sporting equipment, such as helmets and gum-shields or car bumpers, which can be heated to return to their original shape after a minor collision. In addition, medical stitches can self-tighten as a wound heals.



Shape memory alloy

Shape memory alloys are mixtures of metals that **return to their original shape when heated**, similar to shape memory polymers. Again, this type of smart material could be used in sporting equipment and car bodies, as well as certain medical applications, such as surgical plates for joining bone fractures. As the alloy is warmed by the body, it applies a greater tension than normal plates, allowing for faster healing. For example, nitinol is a shape memory alloy of nickel and titanium.



Hydrogels

Hydrogels can absorb up to 1,000 times their own volume in water. After this water has been absorbed, it can be released when its surroundings are dry. Changes in temperature or pH can also cause the hydrogel to release water. Applications of hydrogels include:

- artificial muscles
- hair gel
- nappies
- · 'magic' expanding snow
- · granules added to soil to help retain water for plants

English – Sparx Reader

On a Tuesday and Friday, you should log on to Sparx reader and spend 30 minutes reading.

Reading Articles

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

Week 1: Pride

Week 2: Gender, Women and Misogyny

Week 3: Kindness, Respect and Resolving Differences

Week 4: Leadership

Week 5: Careers

Week 6: Democracy

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:



Food

Why do onions make us cry?

Onions are vital to many of the world's most popular dishes but can deliver a nasty chemical poke in the eye to any chef that slices them. It's a clever defence mechanism that stops animals eating them in the fields. It's also lucky for us, because once cooked, these chemicals transform into a different set of chemicals that give onions a delicious, sweet flavour.



What's the cause?



When onions are sliced, the knife cuts through thousands of tiny cells, making lots of different chemicals mix together. As they mix, an irritating chemical gas is created that floats into your eyes. Nerves sense the gas and send a message to your brain that an irritant is in the eye. The brain sends a message to your tear ducts signalling them to produce tears to flush out the irritant. Suddenly you're crying.

More Defences

Onions aren't the only plant with a defensive skill. It's the reason that chills taste so spicy, and lots of other vegetables have unique traits that can make them irritating (or poisonous) to predators, including humans.



2



3



5



- 1. Rhubarb leaves Rhubarb stalks make a wonderful crumble, but the leaves contain lots of oxalic acid, which can cause kidney problems and make you very sick. Luckily the leaves are extremely sour so you're unlikely to eat them by mistake.
- 2. Raw Kidney Beans Raw kidney beans contain a highly toxic chemical. Just 4 or 5 raw beans can upset your tummy lots. It is deactivated when they are properly cooked, but great care should be taken with it. Tinned beans are fine to eat straight from the tin as they are already cooked.
- **3. Stones and pips** The seeds and pips of fruit such as apples, peaches and plums contain poisonous cyanide compounds. The amount in pips is tiny but high doses can be lethal.
- **4. Raw Cassava** Cassava is grown and eaten mainly in hot countries. It is highly poisonous due to cyanide compounds. The levels get particularly high in them during droughts. But these compounds are destroyed by soaking and cooking, making cassava totally safe to eat afterwards.
- **5. Poisonous Mushrooms** Poisonous mushrooms are very toxic. They are really dangerous as they look similar to edible ones. NEVER eat mushrooms you find in the wild unless you are with an expert!

Geography - 'What challenges and opportunities does Africa face?'

Week 4 - To understand how China can help Africa
Trade involves the buying, selling, or exchanging of goods and services
between individuals, companies, or countries. Imports refer to raw
materials, goods, and services brought into a country from abroad, while
exports are those sold to another country.
Over 15% of Africa's exports, primarily natural resources, are directed to
China. In return, China supplies 21% of Africa's imports, including
machinery, transportation, communication equipment, and
manufactured goods.
A landlocked country or region is one that is almost or entirely
surrounded by land. To overcome this, the first modern electrified railway
line in East Africa has been constructed, with 70% of its funding provided
by China, granting Ethiopia access to the Red Sea.

History - King John – How did the Monarchy's control lose its grip?

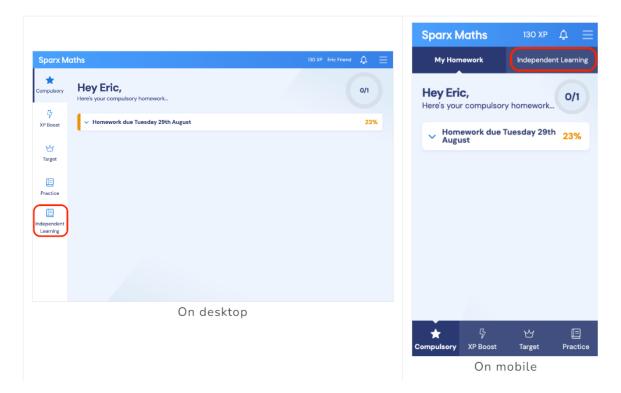
Component	Granular substantive knowledge	Disciplinary literacy (Key words)
Week 1 - How did John's Problems lead him to be seen as a weak King?	The first king to give up some of his power was John. He ruled from 1199 to 1216. He faced the following problems. Problem 1 – He quarrelled with the Pope how to run the Church and the Pope banned all Church services in England. Problem 2 – John went to war twice against the French King and was beaten both times. He lost almost all the land his father had gained in France. Problem 3 – John raised taxes to pay for the wars which upset his barons.	Barons – powerful noblemen Medieval Monarchy – a country ruled by a King or Queen in the Middle Ages. The Pope – the leader of the Roman Catholic Church Taxes – giving money to the King.
Week 3: How did the Magna Carta attempt to limit John's power?	In 1214, the barons rebelled against John. They believed that he could not rule the country properly and was treating them unfairly. They forced King John to sign a charter. The charter described the rights of the freemen in England eg. No freeman can be out in prison without a fair trial. This did not include the rights of the villains . The charter said what English kings could or could not do to freemen. This was the first time that anyone had expected an English King to obey a set of rules. The charter became known as the Magna Carta which means "great charter".	Barons – powerful noblemen Freemen – A person who was free to move around to look for work Magna Carta – an important document which limited the power of the King and gave rights to people Villeins – A peasant who was not free to move away from his master's land.
Week 5: Why is the Magna Carta so important to our democracy?	Although John did not keep the promises he made in Magna Carta, this document is very important, as within 50 years of signing Magna Carta, England had developed a parliament, which represented the wishes of the barons. It clearly stated that no monarch was able to rule "unrestricted" again. The idea of democracy was gradually being introduced.	Democracy – People having "rights" and a "say" in how their country is run.

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:



MFL – French

Tu aimes l'histoire? Do you like history? Quelle est ta matière préférée? What is your favourite subject? (opinions + reasons)					
Opinion phrase	School subject	Conjunction	Verb	Qualifier	Adjective
Ma matière préférée c'est (My subject favourite is)	le français (french) le théâtre (drama)	car (because)	c'est it is	assez (quite) très	amusant (fun) créatif (creative) difficile (difficult)
J'adore (I love)	la musique (music) la technologie (DT) la géographie (geography)	parce que (because)		(very) vraiment (really)	ennuyeux (boring) facile (easy)
J'aime (I like)	l'anglais (english) l'informatique (ICT) l'espagnol (spanish)	mais (but)			intéressant (interesting) nul (rubbish)
Je préfère (I prefer)	l'EPS (pe) l'histoire (history)				utile (useful)
Je n'aime pas (I don't like)			the teacher is tro		sympa (nice) trop sévère (too strict)
Je déteste	les arts plastiques (art)				Stricty
(I hate)	les sciences (science) les maths (maths)		j'ai I have		trop de devoirs (too much homework)

Qu'est-ce que étudies et quand ? What do you study and when?				
Days of the week	Verb	School subject		
	j'étudi e = I study	le français = french le théâtre = drama		
Le lundi = On Monday	Jetudie – i study	la musique = music la technologie = DT la géographie = geography		
Le mardi = On Tuesday	il étudi e =he studies	l'anglais = english l'informatique = ICT l'espagnol = spanish		
Le mercredi = On Wednesday	elle étudi e = she studies	l'EPS = PE l'histoire = history		
Le jeudi = On Thursday	and the diament of the decide	<pre>les arts plastiques = art les sciences = science les maths = maths</pre>		
Le vendredi = On Friday	nous étudi ons = we study			
Le samedi = On Saturday				
Le vendredi = On Sunday	Je n' étudi e pas = I don't study Je ne fais rien = I don't do any			
Le week-end = At the weekend	, i	,,,,,,,,		

Verb (conjugated –er form)	school subject	at	time (hours + minutes)	
j'étudie (I study) nous étudions (we study)	le français (french) la technologie (DT) l'informatique (ICT) les maths (maths)	[huit] heures ([8] O'clock) [huit] heures dix ([8] hours ten – 8.		[huit] heures ([8] O'clock) [huit] heures dix ([8] hours ten – 8:10)
je commence (I begin/start) nous commençons (we begin/start)	les cours (lessons)	à	[huit] heures et quart ([8] hours and quarter – 8:15)	
je quitte (I leave) nous quittons (we leave)	la maison (the house)		[huit] heures et demie ([8] hours and half – 8:30)	
j'arrive (I arrive) nous arrivons (we arrive)	au collège (at the school)		[huit] heures moins cinq ([8] hours minus five – 7:55) [huit] heures moins le quart ([8] hours	
je mange (I eat) nous mangeons (we eat)	à la cantine (at the canteen) un sandwich (a sandwich)		minus the quarter -7:45)	
je retrouve (I meet) nous retrouvons (we meet)	mes amis (my friends) nos amis (our friends)			

Qu'est-ce que tu portes normalement? What do you wear normally? Verb (present/future) Time phrase clothing **un** pantalon je porte (I wear/I am wearing) Normalement une chemise (normally) une cravate Au collège (at school) nous portons **une** jupe (we wear/we are D'habitude (usually) wearing) une veste des gants (some gloves)-m pl des baskets – trainers des chaussettes des chaussures

Time phrase	Verb (present/future)	clothing	colour (m/f/m pl / f pl)
Normalement (normally) Au collège (at school) D'habitude (usually) Ce week-end (this weekend) Le week-end prochain (the weekend next)	je porte (I wear/I am wearing) nous portons (we wear/we are wearing) je vais porter (I am going to wear)	un polo (a polo shirt) un pantalon (a pair of trousers) un tee-shirt (a t-shirt) un manteau (a coat) une chemise (a shirt) une cravate (a tie) une jupe (a skirt) une veste (a blazer)	blanc /blanche / blancs / blanches (white) noir / noire / noirs/ noires (black) bleu / bleue/bleus / bleues (blue) vert/verte/verts/vertes (green) chic/chic/chics/chics (stylish) confortable/confortable/ confortables/confortables (comfortable) pratique/pratique/pratiques/pratiques (practical)
Demain (tomorrow) Oon't forget to add an opinion. J'ai	me le/la/les [clothing] car	des gants (some gloves)- m pl des baskets (some trainers) f pl des chaussettes (some socks) des chaussures (some	démodé/démodée/ démodés/ démodées (unfashionable)

Year 7 HT4 High Frequency Vocabulary:

Week 1: Week 4:

Je porte	I wear / I am wearing
Nous portons	We wear / we are
	wearing
il porte	he wears / he is wearing
elle porte	she wears/ she is
	wearing
normalement	normally
au collège	at school
des chaussures	shoes
des chaussettes	socks
j'étudie	I study
je commence	I begin

je vais porter	I am going to wear
je ne vais pas porter de	I am not going to wear
(no article)	
demain	tomorrow
ce week-end	this weekend
le week-end prochain	next weekend
ça va être	it is going to be
je voudrais porter	I would like to wear
je ne voudrais pas porter	I would not like to wear
je vais aller	I am going to go
je voudrais aller	I would like to go

https://quizlet.com/ b5mrtz?x=1qqt&i=1xg9z8

https://quizlet.com/_b5mv3t?x=1qqt&i=1xg9z8

Week 2:

je ne porte pas <u>de</u> (no article)	I don't wear
nous ne portons pas <u>de</u> (no	We don't wear
article)	
un pantalon	a pair of trousers
une cravate	a tie
une jupe	a skirt
une chemise	a shirt
blanc/blanche/blancs/blanches	white
noir/noire/noirs/noires	black
un peu	a little/bit
assez	quite

https://quizlet.com/_b5msx5?x=1qqt&i=1xg9z8

Week 3:

vert/verte/verts/vertes	green
blanc/blanche/blancs/blanches	white
noir/noire/noirs/noires	black
chic/chics	stylish / sophisticated
confortable/confortables	comfortable
pratique/pratiques	practical
démodé/démodée/démodés/démodées	old-fashioned/unfashionable
d'habitude	usually
je porte	I wear
nous portons	we wear

Week 5 and 6: all of the above!

MFL - German

subject and verb	adverb	hobby
Ich spiele I play	gern gladly	am Computer on the computer
Du spielst You play	nicht gern not gladly	Eishockey ice hockey
Er spielt He plays	sehr gern very gladly	Federball badminton
Sie spielt She plays	überhaupt nicht gern not at all gladly	Fußball football
Wir spielen We play		Gitarre guitar
Ihr spielt You all play		Klavier piano
Sie spielen They play		Tischtennis table tennis
		Wasserball water polo
		X-Box X-box

subject-verb	opinion	noun	connective	intensifier	adjective	verb
Ich spiele 1 play	am liebsten like most of all lieber preferably	Fußball football Netzball netball Rugby rugby Tennis tennis Volleyball volleyball	weil es because it	sehr very ganz really ziemlich quite	einfach easy gesund healthy interessant interesting lustig fun spannend exciting	ist is
Ich mache I do	gern gladly	Judo judo Gymnastik gymnastics		zu too		
Ich gehe I go		schwimmen swimming segeln sailing				
	nicht gern not gladly	eislaufen ice-skating			ermüdend tiring furchtbar terrible langweilig boring	
Ich fahre 1 go		Rad cycling Ski skiing			schwierig difficult wiederholend repetitive	
Ich tanze I dance		Ballet ballet				

subject and verb	adverb	Hobby
Ich spiele I play Spielst du? Do you play? Er spielt He plays Sie spielt She plays Max spielt Max plays Lea spielt Leah plays Wir spielen We play Ihr spielt You all play Sie spielen They play Ich fahre I ride Fährst du? Do you ride?	gern gladly nicht gern not gladly sehr gern very gladly überhaupt nicht gern not at all gladly	am Computer on the computer Eishockey ice hockey Federball badminton Fußball football Gitarre guitar Klavier piano Tischtennis table tennis Wasserball water polo X-Box X-box Rad bike Skateboard skateboard Ski ski
Ich mache I do Machst du? Do you do?		Sport sport Judo judo
Ich gehe I go Gehst du? Do you go? Er geht He goes Sie geht She goes Max geht Max goes Wir gehen We go Ihr geht You all go Sie gehen They go	jeden Tag every day oft often manchmal sometimes einmal pro Woche once a week zweimal pro Woche twice a week immer always am Wochenende at the weekend nie never	in den Park to the park ins Kino to the cinema einkaufen shopping in die Stadt into town schwimmen swimming reiten horseriding tanzen dancing

subject-verb		activity	connective	adjective	verb
Ich möchte I would like	nicht not	Ski fahren to do skiing	weil es because it	anstrengend tiring	ist is
Wir möchten We would like	nie never	Skateboard fahren to go skateboarding Rad fahren to go cycling		aufregend thrilling blöd stupid	
lch würde I would	vielleicht perhaps	snowboarden to go snow boarding		fantastisch fantastic	
Wir würden We would	bestimmt definitely	rodeln to go sledging eislaufen to go ice skating		gefährlich dangerous großartig great	
we would	eines Tages	wandern to hike		langweilig boring	
	one day	klettern to climb		lustig fun	
		schwimmen to swim		spannend exciting	
		turnen to do gymnastics Curling spielen to do curling			
		Handball spielen to play handball			
		Federball spielen to play badminton			

Year 7 German HT4 Vocabulary:

Week 1:

ich spiele	I play
ich spiele gern	I like playing
ich spiele nicht gern	I don't like playing
ich spiele lieber	I prefer playing
ich spiele am	I like playingthe most
liebsten	
er spielt	he plays
sie spielt	she plays
Spielst du?	do you play ?
ich bin [sportlich]	I am [sporty]
ich bin nicht [faul]	I am not [lazy]

Week 2:

Ich fahre Rad	I ride my bike
Ich lese	I read
Ich schwimme	I swim
Ich gehe [ins Kino]	I go [to the cinema]
Ich mache [Judo]	I do judo
Ich esse	I eat
Ich chille	I chill out
Ich höre	I listen
Ich spiele	I play
Ich spiele gern	I like playing

Week 3:

jeden Tag	every day
nie	never
oft	often
am Abend	in the evening
einmal pro Woche	once a week
immer	always
am Wochenende	at the weekend
einmal pro Monat	once a month
Ich spiele	I play
Ich gehe	l go

Week 4:

ich werdegehen	I will go
ich werdespielen	I will play
ich werdemachen	I will do
ich werdesehen	I will watch
ich möchtesehen	I would like to watch
ich möchtegehen	I would like to go
ich möchtespielen	I would like to play
ich möchtemachen	I would like to do
ich spiele	I play
ich gehe	I go

Week 5:

ich chatte mit Freunden auf Facebook, ich mache Fotos oder Filme, ich suche und lese Infos für die Hausaufgaben, ich simse, ich lade Musik herunter, ich sehe Videos, ich surfe im Internet, ich telefoniere mit Freunden

Ich chatte mit	I chat with friends
Freunden	
Ich mache Fotos	I 'do' photos
Ich suche Infos	I search for information
Ich simse	I text
Ich lade Musik	I download music
herunter	
Ich sehe Videos	I watch videos
Ich surfe im Internet	I surf the internet
Ich telefoniere mit	I phone friends
Freunden	
Ich spiele	I play
Ich gehe	l go

Week 6: all of the above!

MFL - Mandarin

你的爱好是什么? Your hobby is what?

Whose	hobby	is	hobbies
我的 my	ài hào 爱好	shì 是	kàn shū 看书。
你的 your			Reading books ting yin yuè 听音乐。
地的 her			Listening to music
他的 his			mài dōng xī 买东西。
[™] [™] Oad's			shopping shàng wǎng 上网。
妈妈的 Mum's			Surfing the internet
哥哥的 Older brother's			
姐姐的 Older sister's			
弟弟的 Younger brother's			
妹妹的 Younger sister's			

今天我不上网。 <u>Today</u> I don't surf the internet.

戦<u>今天</u>不上网。 I <u>today</u> don't surf the internet.

Time word	Who	negative	hobbies
Time word pin tiån 今天 Today	你 you to you to he he 爸爸 Dad	negative bù 不	hobbies kàn shū 看书。 Reading books tīng yīn yuè
	妈妈 Mum Ge Ge Ge Older brother Jie Jie Older sister di		

wǒ xǐ huân kàn diàn shì 我喜欢<u>看电视</u>。 I like <u>watching TV</u>.

Who	negative	like	hobbies
戦 I	bù 不	xĭ huān	kàn shū 看书。
你 you			Reading books fing yin yuè 听音乐。
她 she			shopping shàng wăng
他 he			上网。 Surfing the internet
^{bò} bò Dad			kàn diàn yǐng 看电影。
妈妈 Mum			Watching films kàn diàn shì 看电视。
哥哥 Older brother			Watching TV
姐姐 Older sister			玩儿电脑游戏。 Playing computer games
弟弟 Younger brother			玩儿滑板。 Skateboarding
sky de			Skateboarding

你呢? What about you?

你会游泳吗? Can you swim?

Who	can	sports	Question word
你 you	huì 会	踢足球	^{ma} 吗?
她 she		Play football 打篮球	
他 he		Play basketball	
^{bò} bò Dad		th 手兵球	
妈妈 Mum		Play table tennis th 网球	
可可 Older brother		Play tennis	
jiě jiě 姐姐 Older sister		跑步	
弟弟 Younger brother		run yóu yǒng 游泳	
妹妹 Younger sister		swim	

wǒ huì yóu yǒng 我会游泳。<u>I</u> can <u>swim</u>.

wǒ bù huì yóu yǒng 我不会游泳。<u>L</u>can't <u>swim</u>.

oi hào 爱好	Hobby
^{kàn} shũ 看书	Reading
shàng wàng 上网	Surf the internet
mài dông xì 买东西	Shopping
ting yin yuè 听音乐	Listening to music
ni de 你的	Your
shi 是	Am, is, are
shén me 什么	What
我的	Му
爸爸的	Father's

Week 2

wo 我	I
jin tiàn 今天	Today
hù 不	Not
妈妈	Mother
如此	Older sister
wei mei 妹妹	Younger sister
9 ⁶ 9 ⁶ 9	Older brother
弟弟	Younger brother
mai dông xi 买东西	Shopping
ting yin yub 听音乐	Listening to music

喜欢	Like
kàn diòn shì 看电视	Watch TV
kàn diàn ying 看电影	Watch films
win fr huá bòn 玩儿滑板	To skateboard
wan fr diðn nóo yóu xì 玩儿电脑游戏	Play computer games
不	Not
你呢	What about you?
kàn shū 看书	Reading
shàng wǒng 上网	Surf the internet
爸爸	father

Week 4

shéi 谁	Who
hul 会	Can
踢足球	Play football
th 篮球	Play basketball
打乒乓球	Play table tennis
th wang qiú 打网球	Play tennis
跑步	Run
yóu yóng 游泳	Swim
ds qio 打球	Play ball games
yùn dòng 运动	sport

aı	hao	
67	1.0	
122-	4	
12	X7	
	· ·	

喜欢	like
tàn diàn ying 看电影	Watch films
kòn diòn shì 看电视	Watch TV
wón ér huá bǎn 玩儿滑板	To skateboard
wón ér diòn nòo yóu xì 玩儿电脑游戏	Play computer games
我	1
你	You
他	Не
她	She

Week 6

shéi 让	Who
hul 슺	Can
# zù qiù 踢足球	Play football
th 篮球	Play basketball
di ping pàng qiú 打乒乓球	Play table tennis
th M球	Play tennis
跑步	Run
yóu yóng 游泳	Swim
打球	Play ball games
yùn dòng 运动	sport

MFL – Spanish

Y7 HT4	SB1		¿Cómo es? – What is he / she like?		
VERB		NOUN	ADJECTIVE	CONNECTIVE	ADJECTIVE
El espía = The male			castaño = brown		a media melena = medium length
spy		el pelo	moreno = dark brown		corto = short
La espía		= the hair	negro = black pelirrojo = ginger		en punta = spiky
= The female spy	tiene = has		rubio = blonde	y =	largo = long
El malo = The bad			azul <u>es</u> = blue	and	liso = straight
guy		<u>los</u> ojo <u>s</u>	grises = grey		ondulado = wavy
La mala = The bad		= the eyes	marron <u>es</u> = brown negro <u>s</u> = black		rapado = very short / shaved
girl			verde <u>s</u> = green		rizado = curly

Y7 HT4 SB2	¿ Qué lleva? – V	What does he / she wear?
VERB		NOUN
El espía = The male spy	lleva = wears no lleva	barba = a beard bigote = a moustache
La espía	= does <mark>n't</mark> wear	
= The female spy		
	nunca lleva	gafas = glasses
	= never wears	garas graces
El malo = The bad guy La mala = The bad girl	a menudo lleva = often wears a veces lleva	una chaqueta = a jacket una gorra = a baseball cap un sombrero = a sunhat
	= sometimes wears	

OPINION	NOUN- family	VERB	QUANTIFIER	ADJECTIVE	CONNECTIVE
Pienso que = I think that Creo que = I believe that En mi opinión = In my opinión Diría que = I would say that	el espía = the male spy el malo = the bad guy la espía = the female spy la mala = the bad girl	es = is	un poco = a bit bastante = quite muy = very	alto = tall astuto = crafty bajo = short calvo = bald delgado = slim divertido = fun generoso = generous gordo = fat gracioso = funny amable = kind fuerte = strong inteligente = intelligent paciente = patient guapa = handsome loca = crazy malvada = evil musculosa = muscular peligrosa = dangerous simpática = nice tonta = silly trabajadora = hard-working	además = furthermore pero = but sin embargo = however también = also y = and

Y7 HT4 SB4	¿Que le gus	ta hacer? – What does he / she like doing?
SUBJECT	VERB	VERB PHRASE
Al espía = The male spy A la espía = The female spy Al malo = The bad guy A la mala	le gusta = likes le gusta mucho = really likes le encanta = loves no le gusta = doesn't like	asesinar a los espías = to assassinate the spies ayudar al Profesor Malévolo = to help Prof. Malévolo bailar la rumba = to dance the rumba colaborar con Mini Yo = to collaborate with Mini Yo comer la comida española = to eat Spanish food descansar = to relax encarcelar a la gente = to imprison people envenenar a la gente = to poison people hablar español = to speak Spanish jugar al fútbol = to play football perseguir a los espías = to chase the spies viajar a España = to travel to Spain

Year 7 Spanish HT4 Vocabulary:

Week 1: Hay... personas en mi familia Mi padre Mi madre Mi mother Mi hermano mayor / menor Mi hermana mayor / menor My older / younger sister menor

My grandparents

I get on well with

is called / are called

He, she has / They have

I don't get on well with

Mi tío	My uncle
Mi tía	My aunt
Mi primo	My cousin (male)
Mi prima	My cousin (female)
Mi sobrino	My nephew
Mi sobrina	My niece
Mi hijo	My son
Mi hija	My daughter
Su esposo	His / her husband
Su esposa	His / her wife
Mi novio	My fiancee / boyfriend

Week 3:

Mis abuelos

Tiene / Tienen

Me llev**o** bien con

Me llevo mal con

Se llama / se llaman

(no) soy	I am (not)
es	He / she is
alto / a	tall
bajo / a	small
delgado /a	slim
gordo / a	fat
feo / a	ugly
guapo / a	handsome / pretty
fuerte	strong
perezoso / a	lazy

Week 4:

antipátic o / a	mean
simpátic o / a	friendly / nice
generoso / a	generous
mal o / a	bad
amable	kind
terc o / a	stubborn
tont o / a	silly
trabajador / a	hard-working
inteligente	intelligent
siempre	always

Week 5:

Tengo	I have
Tiene	He / She has
los ojos verdes	green eyes
los ojos marrones	brown eyes
los ojos azules	blue eyes
los ojos negros	black eyes
Llev o gafas	I wear glasses
Llev a	He / She wears
bigote	a moustache
barba	a beard

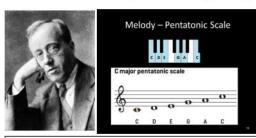
Week 6:

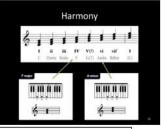
I have the hair
chestnut
brown / dark hair
black
Rred / ginger
blonde
short
long
straight
curly

Music

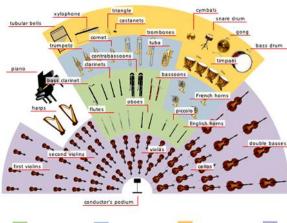
A Journey Through Space Knowledge Organiser

Written between 1914-1916 by British composer Gustav Holst, 'The Planets' represents all the known planets of the Solar System seen from Earth at the time, and their astrological character, including Mars the Bringer of War and Venus the Bringer of Peace





Task: Compose an 8-bar melody using the C major pentatonic scale. Balance is important: your melody should usually be 8 bars long, so you should break it down into two parts or "phrases", (this is called *binary form*). The first phrase will be bars 1-4, and the second phrase will be bars 5-8. If you like, you can then divide each phrase into 2, giving you four short 2-bar phrases. We can call these four phrases 1a, 1b, 2a and 2b.





Scan to Listen



Venus, The Bringer of Peace



Uranus, The Magician



Mercury, The Winged Messenger



Mars, The Bringer of War



Jupiter, The Bringer of Jollity



Neptune, The Mystic



Saturn, The Bringer of Old Age

Essential Key Words:

Ostinato - Repeated Pattern

Drone - Long continuous note

Time Signature, Metre, - How many beats in the bar and what type of beat

brass family

5/4 - 5 crotchet beats in every bar

Composer - Person that writes a piece of music

crescendo - Dynamics, gradually getting louder

triplet - 3 notes squashed in to the time it usually takes to play 2

crotchet - note with a duration of 1 beat

quaver - note with a duration of 1/2 a beat

Dynamics - gradually getting louder

Volume Automation – programming instruments volume in music software

Texture – layers of music

Synthesizer - electric usually keyboard instruments

Chords - playing more than 1 note at the same time

Suite – A collection of pieces of music intended on being played one after the other.

Danse Macabre – Knowledge Organiser

Programme Music - What is it? Scan here to find out and listen to more examples



"Danse Macabre" by Saint-Saëns, composed in 1874 and premiered in 1875, features a solo violin. xylophone, and full orchestra. Inspired by a poem, it depicts Death summoning skeletons to dance at midnight. The piece opens with twelve harp notes, symbolizing the twelve strokes of midnight





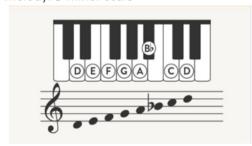
Activities

Listening Exercise: Identify the different sections of the piece and the instruments used.

Creative Task: Compose an 8-bar melody using the D minor scale. Balance is important: your melody should usually be 8 bars long, so you should break it down into two parts or "phrases", (this is called binary form). The first phrase will be bars 1-4, and the second phrase will be bars 5-8. If you like, you can then divide each phrase into 2, giving you four short 2-bar phrases. We can call these four phrases 1a, 1b, 2a and 2b.

Discussion: Explore how Saint-Saëns uses musical elements to create a spooky atmosphere.

Melody: D minor scale



Key Words

- •Chromatic scales (going up or down in semitones)
- •Dissonance notes that 'clash' when played together
- •Tritone a dissonant sound of 2 notes that are 3 tones apart
- •Drones (held notes/rhythms on one pitch)
- Ostinato (repeated pattern)
- Tremolo (alternating on same note/octaves)
- D minor: see melody image for notes
- Metre 3/4 Time signature 3 crotchets in a bar
- •Waltz dance with 3 beats in a bar
- •Timbre The sonic quality of the sound that makes it different from other sounds e.g. the big gong cymbal sounds dark and warm. The small cymbal sounds bright and splashy
- •Tone poem, also known as a symphonic poem A piece of orchestral music that illustrates or evokes a non-musical source, such as a poem, painting, or landscape

- Crotchet note with a duration of 1 beat
- Ouaver note with a duration of ½ a beat
- · Dynamics crescendo gradually getting louder
- · Texture layers of music

Other relevant Key Words

· Harmony and Chords - playing more than 1 note at the same time (see harmony image).



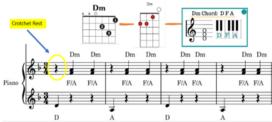


Dance Macabre - scan and click to listen

Listening Guide

- •Introduction: Harp strikes twelve times, representing the clock striking midnight.
- •Death's Call: Solo violin enters with the eerie tritone.
- •Dance Begins: The orchestra joins in, creating a lively and macabre dance
- •Climax: The music becomes more intense, with the full orchestra playing energetically
- Coda (ending): The piece ends quietly as the cock crows, signalling dawn and the return of the skeletons to their graves.

Harmony (Chords)- Accompaniment



Key Words

• Chromatic scales (going up or down in semitones)



• Tritone – a dissonant sound of 2 notes that are 3 tones apart



• Ostinato (repeated pattern) scan here for explanation



• Tremolo (alternating on same note/octaves)



• Metre - 3/4 Time signature - 3 crotchets in a bar





TERM 4









#BE WATER AWARE

Religion and Worldviews

Week 1

Puja is a special way that Hindus show their love and respect for their gods and goddesses. It's a bit like a ceremony where people offer gifts, say prayers, and show their devotion. Puja can be done at home or in a temple, and it's a very important part of Hindu life.

The Puja Tray

When performing Puja, a special tray is used. This tray has six key items, each with its own special meaning:

- 1. **A Bell**: The bell is rung to let the gods know that the Puja is starting. It's like saying, "Hello, we are ready to worship you!"
- 2. **A Dish Containing Sandalwood**: Sandalwood is a sweet-smelling wood that is used to make a paste. This paste is often applied to the forehead as a mark of respect.
- 3. **Food Offerings**: These are special foods that are offered to the gods. It can be fruits, sweets, or other delicious treats.
- 4. **A Pot Containing Holy Water**: This water is used to purify the space and the people involved in the Puja. It's a way of making everything clean and holy.
- 5. **An Incense Stick**: When lit, the incense stick gives off a pleasant smell. This is believed to please the gods and create a peaceful atmosphere.
- 6. **An Arti Lamp**: This is a small lamp that is lit during the Puja. The light from the lamp represents the presence of the gods.

The Shrine

Puja usually takes place at a shrine. A shrine is a special place where images or statues of the gods are kept. It can be a small corner in a home or a large area in a temple. The shrine is decorated with flowers, lights, and other beautiful things to make it a welcoming place for the gods.

A Multi-Sensory Experience

One of the unique things about Puja is that it involves all five senses. This means that during Puja, you will:

- **See** the beautiful decorations and the light of the arti lamp.
- **Hear** the ringing of the bell and the chanting of prayers.
- **Smell** the fragrance of the incense and sandalwood.
- Taste the food offerings that are later shared among the worshippers.
- **Touch** the holy water and the sandalwood paste.

The Five Elements

Hindu worship also refers to the five elements: earth, water, fire, air, and space. Each element is represented in the Puja. For example, the incense represents air, the arti lamp represents fire, and the holy water represents water. This connection to the elements shows the harmony between nature and the divine.

Why is Puja Important?

Puja is important because it helps Hindus feel closer to their gods. It's a way of showing love, respect, and gratitude. By performing Puja, Hindus believe they receive blessings and protection from the gods. It's also a time for families to come together and share in their faith. Puja is a beautiful and meaningful ritual that plays a central role in Hindu worship. It's a way for Hindus to connect with their gods, celebrate their faith, and experience a sense of peace and harmony.

Week 3

Holi, often referred to as the "Festival of Colours," is one of the most vibrant and joyous festivals celebrated by Hindus around the world. This ancient festival, which marks the arrival of spring, is a time for people to come together, forget past grievances, and celebrate with colours, music, and dance.

The Story Behind Holi

The origins of Holi are rooted in Hindu mythology, with several legends associated with its celebration. One of the most popular stories is that of **Prahlad and Holika**. According to the legend, there was a demon king named Hiranyakashipu who was granted a boon that made him nearly invincible. He demanded that everyone worship him, but his own son, Prahlad, remained devoted to Lord Vishnu. Enraged by his son's defiance, Hiranyakashipu plotted to kill Prahlad with the help of his sister, Holika, who had a magical cloak that made her immune to fire. Holika tricked Prahlad into sitting on her lap in a bonfire, but due to his unwavering devotion, Prahlad was saved by Lord Vishnu, and Holika was burned to ashes. This story symbolises the victory of good over evil and is commemorated with the burning of bonfires on the eve of Holi, known as **Holika Dahan**. Another popular legend is that of **Radha and Krishna**. Lord Krishna, known for his playful nature, was concerned about his dark complexion and wondered if fair-skinned Radha would accept him. His mother, Yashoda, playfully suggested that he apply colour to Radha's face to change her complexion. This playful act of applying colours became a tradition and is a central part of Holi celebrations.

How Hindus Celebrate Holi

Holi is celebrated with great enthusiasm and fervour across India and in many parts of the world. The festivities typically last for two days, starting with Holika Dahan and followed by Rangwali Holi, the day of playing with colours.

- 1. **Holika Dahan**: On the eve of Holi, large bonfires are lit to symbolize the burning of evil spirits. People gather around the bonfire, perform rituals, and pray for the well-being of their loved ones. This event is a reminder of the triumph of good over evil.
- 2. **Rangwali Holi**: The main day of Holi is marked by a riot of colours. People of all ages take to the streets armed with coloured powders, water balloons, and water guns. They smear each other with vibrant hues, sing and dance to traditional songs, and enjoy festive foods. The atmosphere is filled with laughter, music, and a sense of camaraderie.
- 3. **Traditional Foods**: Holi is also a time to indulge in delicious traditional foods. Some popular Holi delicacies include **gujiya** (a sweet dumpling filled with khoya and dry fruits), **thandai** (a refreshing milk-based drink flavoured with spices and nuts), and **puran poli** (a sweet flatbread).
- 4. **Community and Togetherness**: Holi is a festival that transcends social boundaries. It brings people together, fostering a sense of unity and brotherhood. Friends, family, and even strangers come together to celebrate, making it a truly inclusive festival.

Holi is more than just a festival of colours; it is a celebration of life, love, and the victory of good over evil. It is a time to let go of past grievances, forgive and forget, and embrace the spirit of togetherness. Whether through the playful application of colours, the warmth of the bonfire, or the sharing of festive foods, Holi brings joy and happiness to all who participate in its vibrant celebrations.

Have you ever wondered what happens after we die? Many people have different beliefs about this, and in Hinduism, there are some fascinating ideas about life, death, and what comes next.

Reincarnation

In Hinduism, there is a belief called reincarnation. This means that when someone dies, their soul doesn't just disappear. Instead, it comes back to earth in a new body or form. Imagine if you could live many different lives, each time as a different person or even an animal! This is what Hindus believe happens to the soul.

Karma

Now, you might be wondering, how does the soul decide what kind of new life it will have? This is where karma comes in. Karma is the idea that everything you do, good or bad, will come back to you in the future. If you are kind and do good deeds, you will be rewarded in your next life. But if you do bad things, you might face difficulties. It's like a cosmic scorecard that keeps track of all your actions.

Samsara

The cycle of being born, living, dying, and being born again is called samsara. It's like an endless loop that all beings go through. Imagine a hamster running on a wheel, going around and around without stopping. That's a bit like samsara. Hindus believe that this cycle keeps souls trapped in the material world, away from a higher, spiritual existence.

Atman

At the heart of these beliefs is the concept of atman. Atman is the World Soul, the source from which all individual souls come. Think of it like a giant ocean, and each soul is a drop of water from that ocean. The ultimate goal for Hindus is for their soul to return to this World Soul. When this happens, they believe they will achieve the highest form of existence.

Breaking Free from Samsara

Hindus believe that being stuck in the cycle of samsara is not ideal. They want to break free from this cycle and reach a state of spiritual freedom. This is called moksha. To achieve moksha, Hindus follow a path of good deeds, devotion, and spiritual practices. They believe that by doing this, they can escape the cycle of samsara and reunite with the atman.

Why These Beliefs Matter

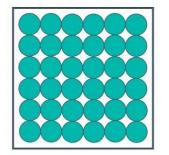
These beliefs are important because they guide how Hindus live their lives. Knowing that their actions have consequences in future lives encourages them to be kind, honest, and helpful. It also gives them a sense of purpose and direction, knowing that their ultimate goal is to achieve moksha and return to the World Soul. Hindu beliefs about reincarnation, karma, samsara, and atman offer a unique perspective on life and death. They teach that our actions matter and that we are all part of a larger, spiritual journey. By understanding these concepts, we can appreciate the rich and profound nature of Hinduism.

Chemistry

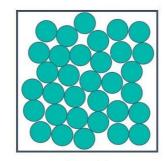
Matter is the material from which everything is made. It can exist as three states: Solid, liquid and gas

Week 1 - What are the states of matter?

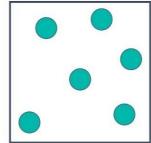
Particle diagrams:



Solid Particles in solids vibrate



Liquid Particles in liquids can move over one another

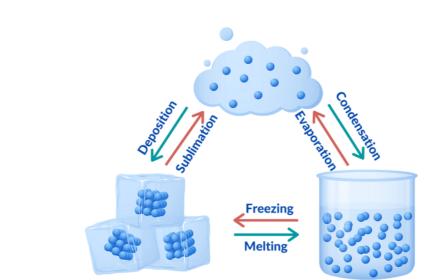


State changes:



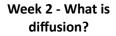
Particles in gases are spaced out. They move quickly and randomly

Gas



Properties of solids, liquids and gases:

Property	Solid	Liquid	Gas
Is the shape fixed or can it change?	Fixed	Shape of the container	Shape of the container
Does it flow?	Cannot flow	Can flow	Can flow
Is it easy to squash?	No	No	Yes
Can you change its volume?	Fixed Volume	Fixed Volume	No Fixed Volume
Does it feel heavy or light?	Heavy	Heavy	Light



Diffusion is 'the movement of particles from an area of high concentration to an area of low concentration'.

Diffusion is a passive process; it does not require energy. Tt happens naturally.

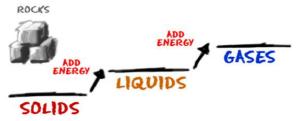


Liquids **and** gases are both fluids. They can flow.

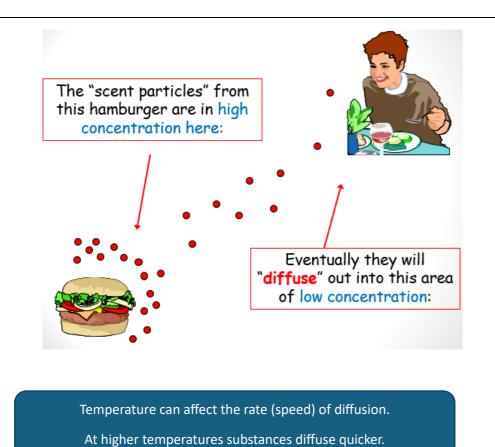
State changes are **physical** changes. They can be reversed.







THE STATE OF MATTER CHANGES AS YOU ADD MORE ENERGY



How do the particles know which way to move?!

They don't!! Particles in fluids (gases and liquids) move RANDOMLY





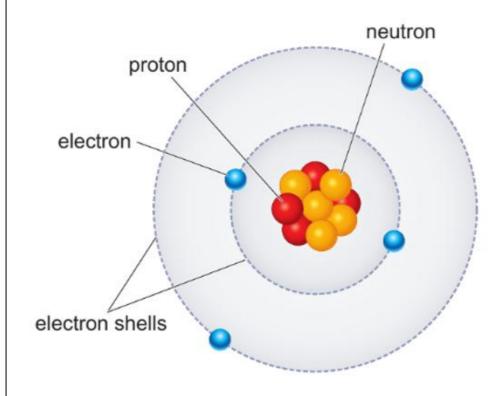
This is called Brownian motion (named after Robert brown who observed pollen grains moving randomly in water in 1827)

Week 3 - What is the

universe made of?

All matter is made up of very very small atoms (these cannot be seen with the eye)

Atomic structure:



Atoms are made up of 3 **subatomic** particles.

Protons and neutrons are found in the centre and make up the **nucleus.**

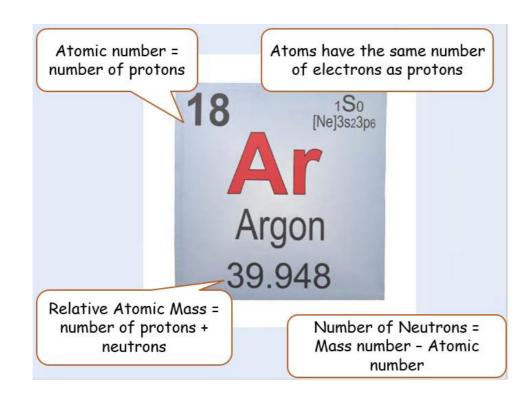
Electrons orbit the nucleus on shells.

Masses and charges of the subatomic particles:

Subatomic particle	Relative charge	Relative mass
proton	+1 (positive)	1
electron	−1 (negative)	1/1835 (negligible)
neutron	0 (no charge)	1

B relative masses and relative charges of subatomic particles

Different atoms have different numbers of protons neutrons and electrons. We can use the periodic table to find out how many protons neutrons and electrons are in different atoms:

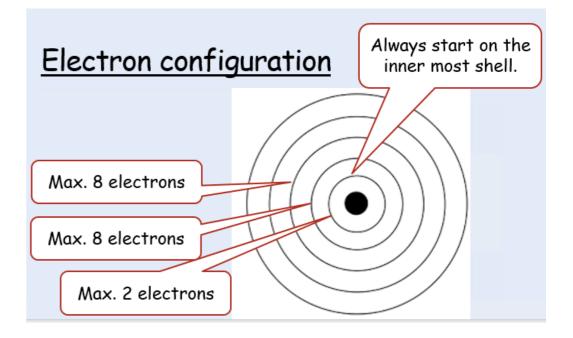


Electron configuration shows how many electrons are in each shell.

Argon has 18 electrons. It will have 2 electrons on the first shell, 8 on the second shell and 8 on the third shell.

Its electron configuration is 2,8,8

The **atomic number** is the smaller number, and the **relative atomic mass** is the bigger number



Week 4 - What is an element?

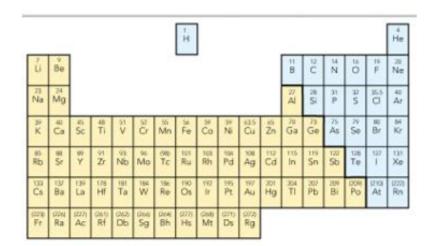
Elements are substances that are made up of **one type of atom**. For example, pure copper will only contain copper atoms.

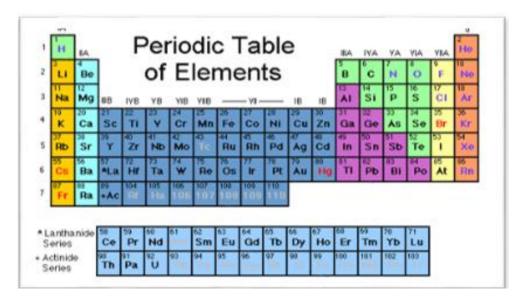
The different elements we have discovered on earth are found on the periodic table.

Each element is represented by a symbol on the periodic table.

The metals are on the left and the non-metals are on the right.

The columns are called groups, and the rows are called periods.





Some elements consist of one atom. Some go around in pairs e.g. O₂, H₂, some consist of thousands of atoms, but they are all elements because they contain one type of atom.

Properties of elements can be investigated such as:

- Conductivity (electrical)
- Conductivity (thermal)
- Boiling point
- Melting point
- State at room temperature
- Appearance
- Metal or non-metal
- Magnetic

Many chemicals in the lab and in everyday life can be hazardous. Hazard symbols inform us of the hazards.

Week 5 - Hazards and everyday uses

Hazard symbol	What it means	How to reduce risk of harm.
	Explosive May explode if exposed to fire, heat, shock, friction.	Avoid ignition sources (sparks, flames, heat) Keep your distance Wear protective clothing

	<u>Flammable</u>	Avoid ignition sources
		(sparks, flames, heat)
	Flammable if exposed to ignition sources, sparks, heat. Some substances with this symbol may	Keep your distance
	give off flammable gases in contact with water.	Wear protective clothing
	Oxidising Agent	Avoid ignition sources
	Can burn even without air, or can intensify fire in combustible materials.	(sparks, flames, heat) Keep your distance
	Can burn even without air, or can intensity fire in combustible materials.	Wear protective clothing
	Gos under prossure	Do not heat containers
	Gas under pressure	Do not heat containers Avoid contact with skin and eyes
	Contains gas under pressure. Gas released may be very cold. Gas container may explode if	
	heated.	
	<u>Corrosive</u>	Avoid contact with skin and eyes
		Do not breathe vapours or sprays
	Corrosive material which may cause skin burns and permanent eye damage.	Wear protective clothing
	<u>Toxic</u>	Do not swallow the material, allow it to come into contact with skin or breathe it
	Toxic material which may cause life threatening effects even in small amounts and with short	
	exposure.	
	Health problems	Do not swallow the material, allow it to come into contact with skin or breathe it.
	May cause serious and prolonged health effects on short or long term exposure.	

	<u>Irritant</u>	Keep away from skin and eyes
	May cause irritation (redness, rash) or less serious toxicity.	
	Toxic to the environment Toxic to aquatic organisms and may cause long lasting effects in the environment.	Avoid release to the environment

Week 6 - Chemical Reactions

For a chemical reaction to have occurred a new substance has to have been formed.

Reactants (Starting chemicals)

→ Products (New chemicals)

There are three main ways to tell that a chemical reaction has occurred.

- 1. A colour change
- 2. A gas is released (effervescence)
- 3. There is an energy change (e.g. changing temperature)

Chemical reactions usually cannot be reversed (irreversible)

Remember: A physical change is a change in state.
Physical changes can be reversed.

Writing chemical equations:

When magnesium is burned in oxygen, magnesium oxide is made.

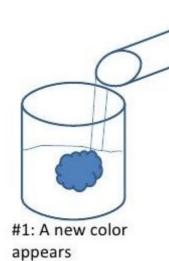
Magnesium + oxygen → magnesium oxide

When water is added to copper sulphate, hydrated copper sulphate is made.

Copper sulphate + water → hydrated copper sulphate

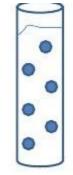
When magnesium is added to hydrochloric acid, hydrogen is made along with magnesium chloride.

Magnesium + hydrochloric acid(g) → magnesium chloride + hydrogen





#2: Heat, light, or sound is given off (or absorbed).



#3: Bubbles of gas are formed. A new odour may be noticed The arrow shows a **chemical reaction has happened**, but an equals sign shows the items
before and after are the same.

Reactants: The chemicals which are present at the start of the reaction

Products: The chemicals made in a chemical reaction