



# Knowledge Organisers

Year 7

Spring Half Term 2

*'Practice of what is taught'*

Name: .....

Tutor: .....

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.





# Computing Knowledge Organiser



**The Castle School**  
ACHIEVE | BELONG | PARTICIPATE



## 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, Cable, Server, Router

### Diagram

#### Network Diagram

### Key Words

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

### 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.

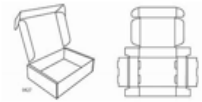
Subsistence farming

Subsistence farming. It 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

Environmental Issues.

The five seasons of Nepal are Spring, Summer, Monsoon (rainy season), Autumn and Winter)

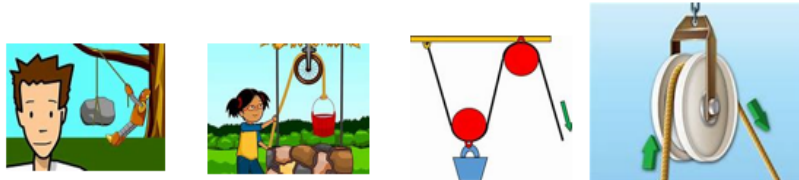


Nepal  
Nepal population is equivalent to 0.39% of the total world population. Nepal ranks number 49 in the list of countries (and dependencies) by population. Nepali is the language of Nepal.



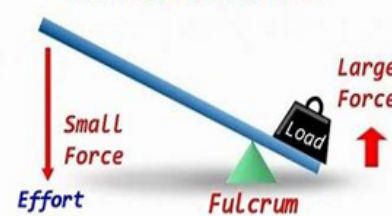
Pulley

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.



Lever

How Does a Lever Work?



A lever can be described as a long rigid body with a fulcrum along its length.

**Load:** The object you're lifting.

**Fulcrum:** Point at which the lever pivots.

**Effort:** The force applied to make the object move.

Video Link: [Thermochromic & Photochromic Plastics - YouTube](#)

## 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.



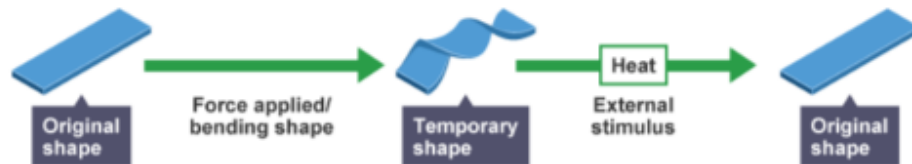
### Photochromic pigments

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.



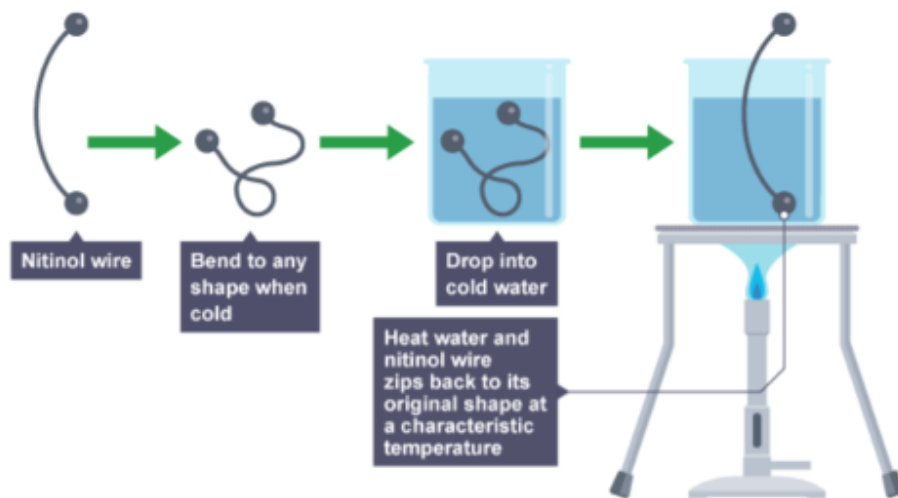
## Shape memory polymer

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

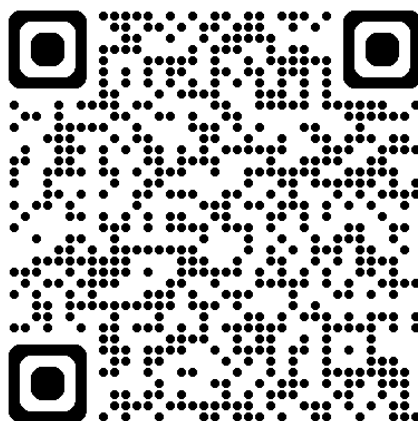
**Week 5:** Careers

**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:

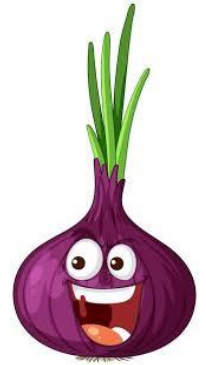




# Food

## 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.






- 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 2 - To understand how developed African countries are	Week 4 - To understand how China can help Africa
<p><b>Development</b> is the progress a country makes in terms of economic growth, technology use, and the well-being of its people. We can measure development using various indicators, such as life expectancy, literacy rate, Gross National Income (GNI) per capita, death rate, and the number of people per doctor.</p> <p>The <b>literacy rate</b> is the percentage of adults who can read and write. <b>Life expectancy</b> is the average age a person can expect to live. <b>GNI per capita</b> is the value of a country's income divided by its population. The <b>Human Development Index (HDI)</b> is a measure of economic development that combines GNI per capita, life expectancy, and literacy rates to give an average score. For example, Norway has the highest HDI score of 0.957 out of 1.0.</p>	<p><b>Trade</b> involves the buying, selling, or exchanging of goods and services between individuals, companies, or countries. <b>Imports</b> refer to raw materials, goods, and services brought into a country from abroad, while <b>exports</b> are those sold to another country.</p> <p>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.</p> <p>A <b>landlocked</b> 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.</p>
Week 6 - To know the issues facing the Horn of Africa	
<p>A <b>drought</b> happens when there is much less rain than usual, so there isn't enough water for everyone. This can lead to a <b>famine</b>, which means there isn't enough food for people to eat, and it can be very serious.</p> <p>In the Horn of Africa, it hasn't rained for almost two years, and this has affected 22.9 million people. Because of the drought, 12 million people are at risk of famine because they can't grow crops. Also, the lack of clean water has caused more diseases and illnesses from dirty water.</p>	

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

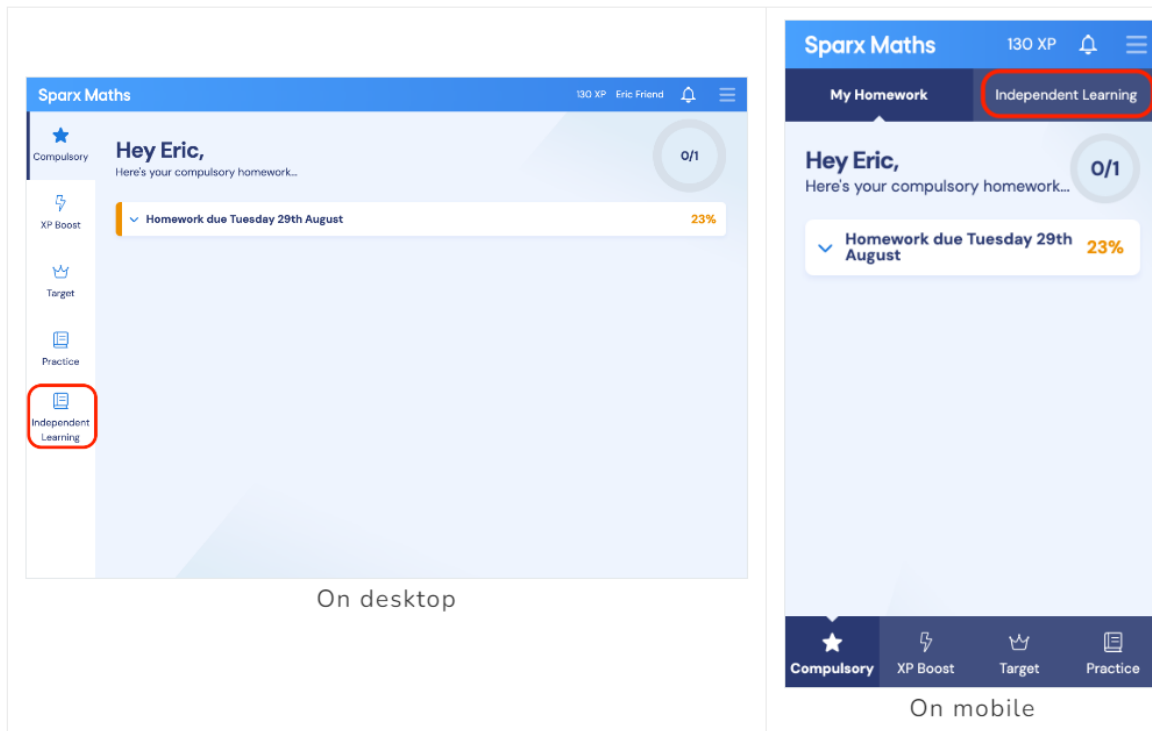
Component	Granular substantive knowledge	Disciplinary literacy (Key words)
<p><b>Week 1 - How did John’s Problems lead him to be seen as a weak King?</b></p> 	<p>The first king to give up some of his power was John. He ruled from 1199 to 1216. He faced the following problems.</p> <p><b>Problem 1</b> – He quarrelled with the <b>Pope</b> how to run the Church and the Pope banned all Church services in England.</p> <p><b>Problem 2</b> – 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.</p> <p><b>Problem 3</b> – John raised <b>taxes</b> to pay for the wars which upset his barons.</p>	<p><b>Barons</b> – powerful noblemen</p> <p><b>Medieval Monarchy</b> – a country ruled by a King or Queen in the Middle Ages.</p> <p><b>The Pope</b> – the leader of the Roman Catholic Church</p> <p><b>Taxes</b> – giving money to the King.</p>
<p><b>Week 3: How did the Magna Carta attempt to limit John’s power?</b></p> 	<p>In 1214, the <b>barons</b> 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 <b>freemen</b> in England eg. No freeman can be out in prison without a fair trial. This did not include the rights of the <b>villains</b>. 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 <b>Magna Carta</b> which means “great charter”.</p>	<p><b>Barons</b> – powerful noblemen</p> <p><b>Freemen</b> – A person who was free to move around to look for work</p> <p><b>Magna Carta</b> – an important document which limited the power of the King and gave rights to people</p> <p><b>Villeins</b> – A peasant who was not free to move away from his master’s land.</p>
<p><b>Week 5: Why is the Magna Carta so important to our democracy?</b></p> 	<p>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 <b>democracy</b> was gradually being introduced.</p>	<p><b>Democracy</b> – People having “rights” and a “say” in how their country is run.</p>

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

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

Parle-moi d'une journée typique au college:  
Tell me about a typical school day: (present tense – er verbs)

le / la / les = the    au / à la / aux = to the / at the

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)	à	[huit] heures ([8] O'clock) [huit] heures dix ([8] hours ten – 8:10) [huit] heures et quart ([8] hours and quarter – 8:15) [huit] heures et demie ([8] hours and half – 8:30)  [huit] heures moins cinq ([8] hours minus five – 7:55) [huit] heures moins le quart ([8] hours minus the quarter -7:45)
je commence (I begin/start) nous commençons (we begin/start)	les cours (lessons)		
je quitte (I leave) nous quittons (we leave)	la maison (the house)		
j'arrive (I arrive) nous arrivons (we arrive)	au collège (at the school)		
je mange (I eat) nous mangeons (we eat)	à la cantine (at the canteen) un sandwich (a sandwich)		
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?

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

Qu'est-ce que tu portes au collège?  
 What do you wear to school? (Present and near future tenses)

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

Don't forget to add an opinion. J'aime le/la/les [clothing] car c'est + adjective  
 e.g. j'aime la cravate car c'est pratique

**Year 7 HT4 High Frequency Vocabulary:**

**Week 1:**

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
<i>j'étudie</i>	<i>I study</i>
<i>je commence</i>	<i>I begin</i>

**Week 4:**

je vais porter	I am going to wear
je ne vais pas porter de (no article)	I am not going to wear
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
<i>je vais aller</i>	<i>I am going to go</i>
<i>je voudrais aller</i>	<i>I would like to go</i>

[https://quizlet.com/\\_b5mrtz?x=1qqt&i=1xg9z8](https://quizlet.com/_b5mrtz?x=1qqt&i=1xg9z8)

[https://quizlet.com/\\_b5mv3t?x=1qqt&i=1xg9z8](https://quizlet.com/_b5mv3t?x=1qqt&i=1xg9z8)

**Week 2:**

je ne porte pas <b>de</b> (no article)	I don't wear
nous ne portons pas <b>de</b> (no article)	We don't wear
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
<i>un peu</i>	<i>a little/bit</i>
<i>assez</i>	<i>quite</i>

[https://quizlet.com/\\_b5msx5?x=1qqt&i=1xg9z8](https://quizlet.com/_b5msx5?x=1qqt&i=1xg9z8)

**Week 5 and 6: all of the above!**

**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
<i>je porte</i>	<i>I wear</i>
<i>nous portons</i>	<i>we wear</i>



# MFL – German

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

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

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

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

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 liebsten...	I like playing....the most
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
<i>Ich spiele</i>	<i>I play</i>
<i>Ich spiele gern</i>	<i>I like playing</i>

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
<i>Ich spiele</i>	<i>I play</i>
<i>Ich gehe</i>	<i>I go</i>

Week 4:

ich werde....gehen	I will go...
ich werde....spielen	I will play...
ich werde...machen	I will do...
ich werde...sehen	I will watch...
ich möchte...sehen	I would like to watch...
ich möchte...gehen	I would like to go...
ich möchte...spielen	I would like to play...
ich möchte...machen	<i>I would like to do...</i>
<i>ich spiele</i>	<i>I play</i>
<i>ich gehe</i>	<i>I go</i>

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

Week 6: all of the above!

## MFL – Mandarin

nǐ de ài hào shì shén me  
你的爱好是什么? Your hobby is what?

Whose	hobby	is	hobbies
wǒ de 我的 my	ài hào 爱好	shì 是	kàn shū 看书。
nǐ de 你的 your			Reading books
tā de 她的 her			tīng yīn yuè 听音乐。
tā de 他的 his			Listening to music
bà bà de 爸爸的 Dad's			mǎi dōng xī 买东西。
mā mā de 妈妈的 Mum's			shopping
gē gē de 哥哥的 Older brother's			shàng wǎng 上网。
jiě jiě de 姐姐的 Older sister's			Surfing the internet
dì dì de 弟弟的 Younger brother's			
mèi mèi de 妹妹的 Younger sister's			

jīn tiān wǒ bù shàng wǎng  
今天我不上网。 Today I don't surf the internet.

wǒ jīn tiān bù shàng wǎng  
我今天不上网。 I today don't surf the internet.

Time word	Who	negative	hobbies
jīn tiān 今天	wǒ 我 I	bù 不	kàn shū 看书。
Today	nǐ 你 you		Reading books
	tā 她 she		tīng yīn yuè 听音乐。
	tā 他 he		Listening to music
	bà bà 爸爸 Dad		mǎi dōng xī 买东西。
	mā mā 妈妈 Mum		shopping
	gē gē 哥哥 Older brother		shàng wǎng 上网。
	jiě jiě 姐姐 Older sister		Surfing the internet
	dì dì 弟弟 Younger brother		
mèi mèi 妹妹 Younger sister			

wǒ xǐ huān kàn diàn shì  
我喜欢看电视。 I like watching TV.

Who	negative	like	hobbies
wǒ 我 I	bù 不	xǐ huān 喜欢	kàn shū 看书。
nǐ 你 you			Reading books
tā 她 she			tīng yīn yuè 听音乐。
tā 他 he			shopping
bà bà 爸爸 Dad			shàng wǎng 上网。
mā mā 妈妈 Mum			Surfing the internet
gē gē 哥哥 Older brother			kàn diàn yǐng 看电影。
jiě jiě 姐姐 Older sister			Watching films
dì dì 弟弟 Younger brother			kàn diàn shì 看电视。
mèi mèi 妹妹 Younger sister			Watching TV
			wán ér diàn nǎo yóu xì 玩儿电脑游戏。
			Playing computer games
			wán ér huá bǎn 玩儿滑板。
			Skateboarding

nǐ ne  
你呢? What about you?

nǐ huì yóu yǒng ma  
你会游泳吗?

Can you swim?

Who	can	sports	Question word
nǐ 你 you	huì 会	tī zú qiú 踢足球 Play football	ma 吗?
tā 她 she		dǎ lán qiú 打篮球 Play basketball	
tā 他 he		dǎ ping pāng qiú 打乒乓球 Play table tennis	
bà bà 爸爸 Dad		dǎ wǎng qiú 打网球 Play tennis	
mā mā 妈妈 Mum		pǎo bù 跑步 run	
gē gē 哥哥 Older brother		yóu yǒng 游泳 swim	
jiě jiě 姐姐 Older sister			
dì dì 弟弟 Younger brother			
mèi mèi 妹妹 Younger sister			

wǒ huì yóu yǒng  
我会游泳。 I can swim.

wǒ bù huì yóu yǒng  
我不会游泳。 I can't swim.

Week 1

ài hào 爱好	Hobby
kàn shū 看书	Reading
shàng wǎng 上网	Surf the internet
mǎi dōng xī 买东西	Shopping
tīng yīn yuè 听音乐	Listening to music
nǐ de 你的	Your
shì 是	Am, is, are
shén me 什么	What
wǒ de 我的	My
bà ba de 爸爸的	Father's

Week 2

wǒ 我	I
jīn tiān 今天	Today
bù 不	Not
mā ma 妈妈	Mother
jiě jie 姐姐	Older sister
mèi mei 妹妹	Younger sister
ge ge 哥哥	Older brother
di di 弟弟	Younger brother
mǎi dōng xī 买东西	Shopping
tīng yīn yuè 听音乐	Listening to music



Week 3

xǐ huān 喜欢	Like
kàn diàn shì 看电视	Watch TV
kàn diàn yǐng 看电影	Watch films
wán ér huá bǎn 玩儿滑板	To skateboard
wán ér diàn nǎo yóu xì 玩儿电脑游戏	Play computer games
bù 不	Not
nǐ ne 你呢	What about you?
kàn shū 看书	Reading
shàng wǎng 上网	Surf the internet
bà ba 爸爸	father

Week 4

shéi 谁	Who
huì 会	Can
tī zú qiú 踢足球	Play football
dǎ lán qiú 打篮球	Play basketball
dǎ ping pāng qiú 打乒乓球	Play table tennis
dǎ wǎng qiú 打网球	Play tennis
pǎo bù 跑步	Run
yóu yǒng 游泳	Swim
dǎ qiú 打球	Play ball games
yùn dòng 运动	sport

Week 5

ài hào 爱好	
xǐ huān 喜欢	like
kàn diàn yǐng 看电影	Watch films
kàn diàn shì 看电视	Watch TV
wán ér huá bǎn 玩儿滑板	To skateboard
wán ér diàn nǎo yóu xì 玩儿电脑游戏	Play computer games
wǒ 我	I
nǐ 你	You
tā 他	He
tā 她	She

Week 6

shéi 谁	Who
huì 会	Can
tī zú qiú 踢足球	Play football
dǎ lán qiú 打篮球	Play basketball
dǎ ping pāng qiú 打乒乓球	Play table tennis
dǎ wǎng qiú 打网球	Play tennis
pǎo bù 跑步	Run
yóu yǒng 游泳	Swim
dǎ qiú 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
<b>El espía</b> = The male spy  <b>La espía</b> = The female spy	<b>tiene</b> = has	<b>el pelo</b> = the hair	<b>castaño</b> = brown  <b>moreno</b> = dark brown  <b>negro</b> = black  <b>pelirrojo</b> = ginger  <b>rubio</b> = blonde	<b>Y</b> = and	<b>a media melena</b> = medium length  <b>corto</b> = short  <b>en punta</b> = spiky  <b>largo</b> = long  <b>liso</b> = straight  <b>ondulado</b> = wavy  <b>rapado</b> = very short / shaved  <b>rizado</b> = curly
<b>El malo</b> = The bad guy  <b>La mala</b> = The bad girl			<b>los ojos</b> = the eyes		<b>azules</b> = blue  <b>grises</b> = grey  <b>marrones</b> = brown  <b>negros</b> = black  <b>verdes</b> = green

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

Y7 HT4 SB3		¿Cómo es? – What is he / she like?			
OPINION	NOUN- family	VERB	QUANTIFIER	ADJECTIVE	CONNECTIVE
Pienso que = I think that	el espía = the male spy	es = is	un poco = a bit	alto = tall astuto = crafty bajo = short calvo = bald delgado = slim divertido = fun generoso = generous gordo = fat gracioso = funny	además = furthermore
Creo que = I believe that	el malo = the bad guy		bastante = quite	amable = kind fuerte = strong inteligente = intelligent paciente = patient	pero = but
En mi opinión = In my opinión	la espía = the female spy		muy = very	guapa = handsome loca = crazy malvada = evil musculosa = muscular peligrosa = dangerous simpática = nice tonta = silly trabajadora = hard-working	sin embargo = however
Diría que = I would say that	la mala = the bad girl		extremadamente = extremely		también = also
			demasiado = too		y = and

Y7 HT4 SB4		¿Qué le gusta hacer? – What does he / she like doing?	
SUBJECT	VERB	VERB PHRASE	
Al espía = The male spy	le gusta = likes	asesinar a los espías = to assassinate the spies ayudar al Profesor Malévolo = to help Prof. Malévolo bailar la rumba = to dance the rumba	
A la espía = The female spy	le gusta mucho = really likes	colaborar con Mini Yo = to collaborate with Mini Yo comer la comida española = to eat Spanish food descansar = to relax	
Al malo = The bad guy	le encanta = loves	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	
A la mala = The bad girl	no le gusta = doesn't like	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	There are ... people in my family
Mi padre	My father
Mi madre	My mother
Mi hermano mayor / menor	My older / younger brother
Mi hermana mayor / menor	My older / younger sister
Mis abuelos	My grandparents
Se llama / se llaman	is called / are called
Tiene / Tienen	He, she has / They have
Me llevo bien con	I get on well with
Me llevo mal con	I don't get on well with

**Week 2:**

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 fiancée / boyfriend

**Week 3:**

(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:**

antipático / a	mean
simpático / a	friendly / nice
generoso / a	generous
malo / a	bad
amable	kind
terco / a	stubborn
tonto / 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
Llevo gafas	I wear glasses
Lleva...	He / She wears
...bigote	a moustache
...barba	a beard

**Week 6:**

Tengo el pelo...	I have the hair...
castaño	chestnut
moreno	brown / dark hair
negro	black
pelirrojo	Red / ginger
rubio	blonde
corto	short
largo	long
liso	straight
rizado	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



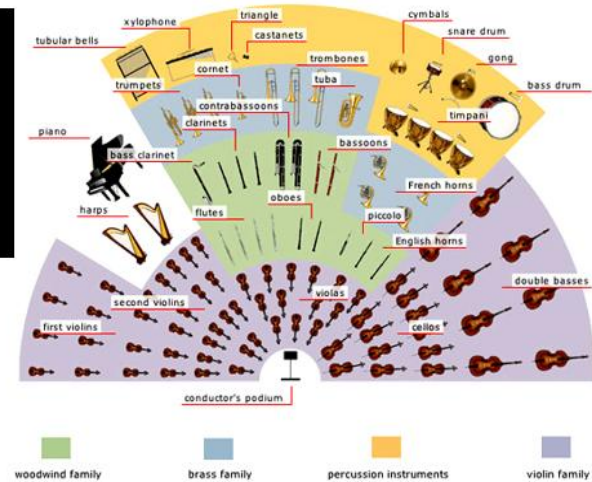
Melody – Pentatonic Scale

C D E G A C

C major pentatonic scale

Harmony

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**

Venus, The Bringer of Peace

**URANUS**

Uranus, The Magician

**MERCURY**

Mercury, The Winged Messenger

**MARS**

Mars, The Bringer of War

**JUPITER**

Jupiter, The Bringer of Jollity

**NEPTUNE**

Neptune, The Mystic

**SATURN**

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
- 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 ½ 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



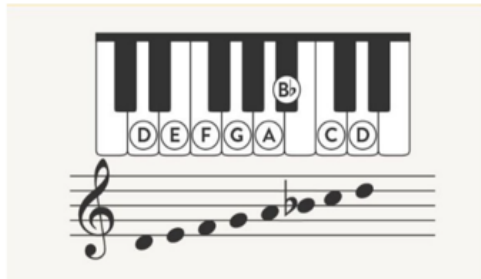
## Activities

**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

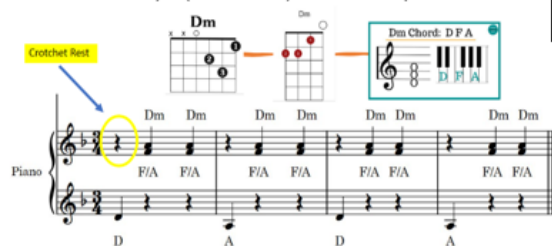


Danse Macabre – scan and click to listen

## 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



## • Other relevant Key Words

- Crotchet – note with a duration of 1 beat
- Quaver – note with a duration of 1/2 a beat
- Dynamics crescendo - gradually getting louder
- Texture – layers of music
- Harmony and Chords – playing more than 1 note at the same time (see harmony image).

# Key Words

- Chromatic scales (going up or down in semitones)



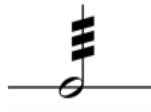
- Tritone – a dissonant sound of 2 notes that are 3 tones apart



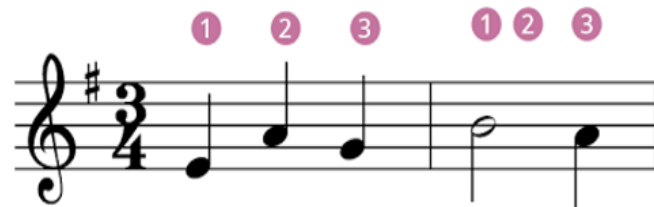
- Ostinato (repeated pattern) scan here for explanation



- Tremolo (alternating on same note/octaves)



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







## KINDNESS & RESPECT Quote Banner

### Kindness

n. The quality of being generous, friendly and considerate.

"Be kind whenever possible. It is *always* possible."  
- Dalai Lama

"A person's a person *no matter* how small."  
- Dr. Seuss

"Respect people feelings. Even if it doesn't mean anything to you, it could mean *everything* to them."  
- Unknown

**Respect**  
n. A feeling of deep admiration for someone or something elicited by their abilities, qualities or achievements

“ Misogyny constrains every aspect of women’s lives – from the decisions about what time or where we feel comfortable to go for walk in our own neighbourhoods, to the subjects we take at school because of peer pressure, teasing or worse if we break with gendered conventions. ”

# 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.

## **Week 5**

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.

**Biology**  
**Week 1 - What are living things made of?**

All living organisms are made up of cells.

Animal Cell structure include:

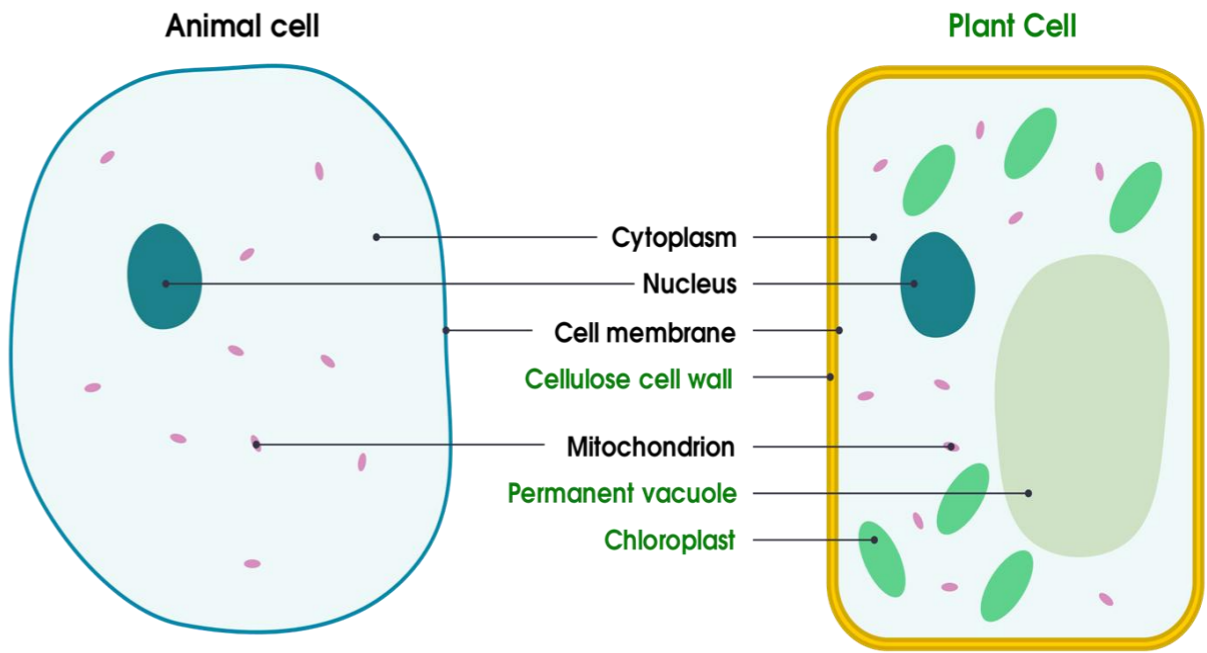
- Nucleus
- Membrane
- Cytoplasm
- Ribosome
- Mitochondria

Plant cell structure include organelles above plus:

- Cell wall
- Chloroplast
- Vacuole

Function of the cell structures.

- Cytoplasm - Chemical reactions occur here
- Nucleus - Contains the genetic information. Controls the cells activity
- Cell membrane - Controls what enters or leaves the cell
- Mitochondria - Carry out respiration to release energy
- Chloroplast - Photosynthesis occurs here.
- Vacuole - Contain cell sap to keep cell swollen.
- Cell Wall - Provides structure and support.



**Week 2 - Using a microscope**

Parts of a microscope:

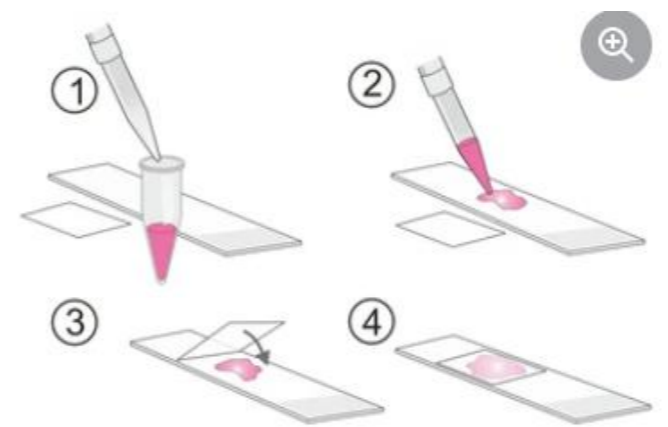
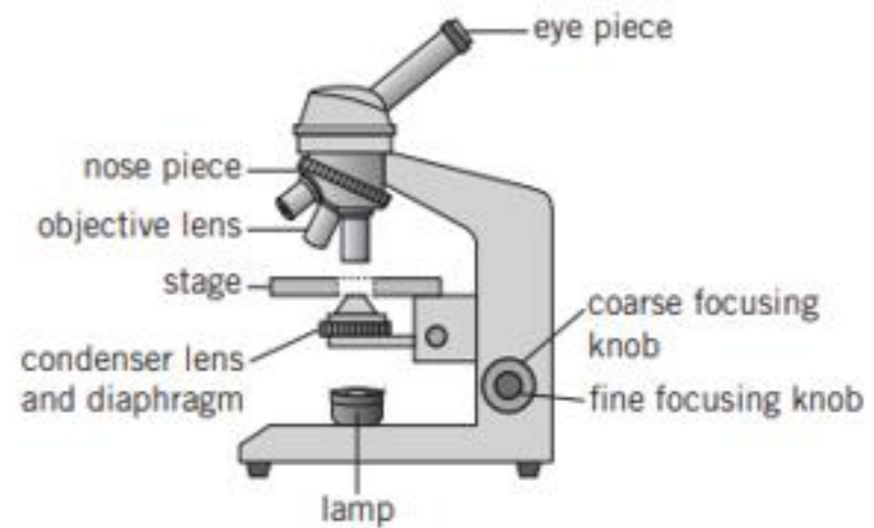
- Stage
- Eyepiece lens
- Objective lens
- Focusing knob

Preparation of cheek cell with stain method:

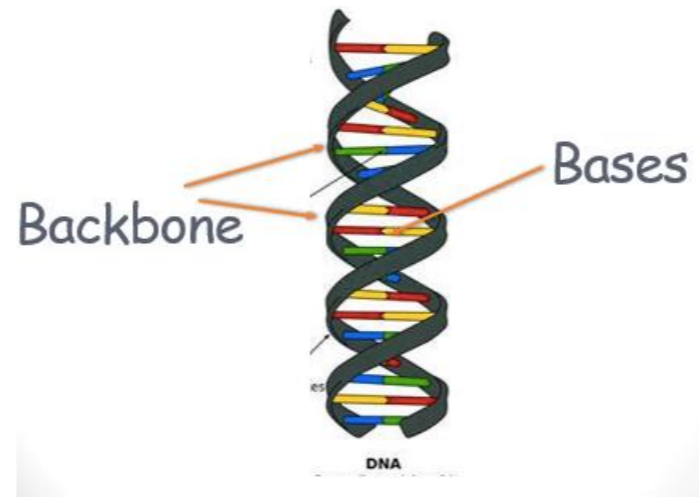
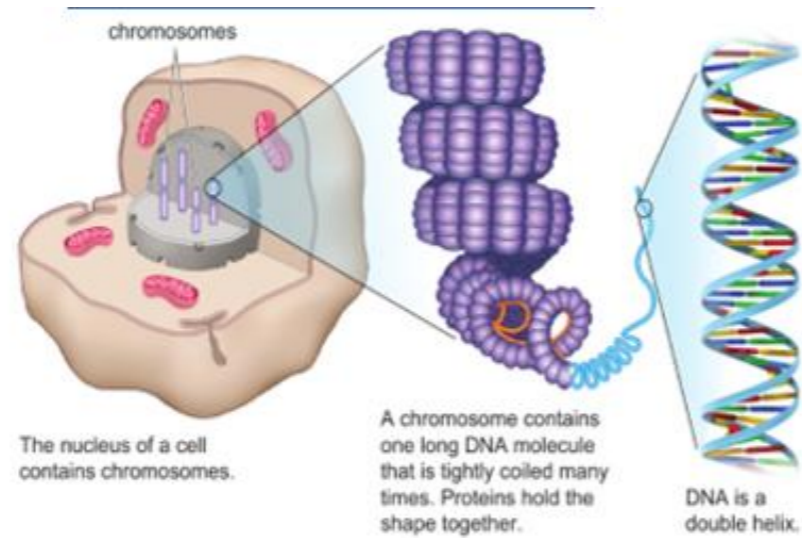
1. Using a cotton wool bud, rub the inside of your cheek to collect the cells.
2. Streak the cotton wool bud onto a microscope slide.
3. Place two to three drops of methylene blue solution onto the streak (stains make the cell parts easier to see)
4. Carefully place the cover slip onto the slide.
5. Observe under the microscope using low power before moving to a higher power.

To calculate overall magnification:  
 Eyepiece lens x objective lens

Magnification is how many times bigger an image is compared to its original size.  
 Resolution is the ability to distinguish between two separate points on an image (how detailed it is)



**Week 3 - What is DNA?**

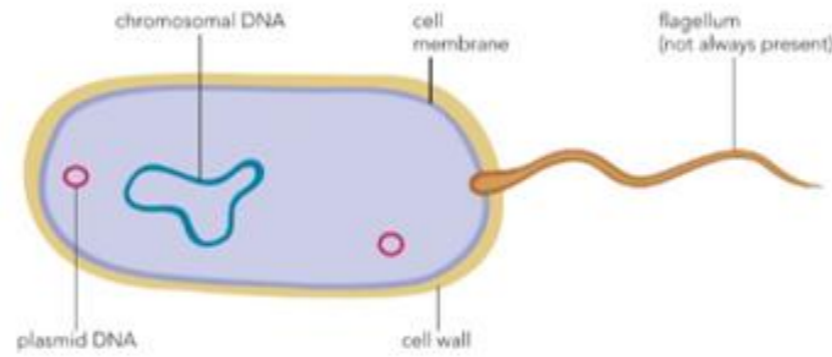


DNA has a double helix shape.  
 DNA consists of a backbone and bases.  
 The complimentary base pairs are:  
 A and T  
 G and C

**Week 4 - Other types of cell**

Structure of bacterium:

- Unicellular (one cell)
- NO nucleus
- Cell wall
- Chromosomal DNA
- Plasmid DNA
- Some have flagella



Other microorganisms include: Fungi and viruses.

Roles of differentiated/ specialised cells in multicellular organisms including:


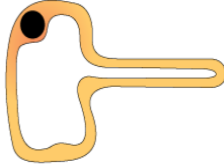
- Egg
- Sperm
- red blood cell
- root hair

**Eukaryotic cells contain a nucleus**  
**Prokaryotic cells do not contain a nucleus**

Bacteria are **microorganisms** (very small living things)  
 Not all bacteria are bad. Many are useful to humans.

**Multicellular organisms** consist of many cells.  
**Specialised cells** are cells that have a specific function. They are well adapted to carry out their function in a number of different ways.

Cell	Function	Adaptations	Image
Red blood cell	To carry oxygen around the body	Large surface area to carry oxygen. Haemoglobin to carry oxygen. No nucleus for plenty of space for haemoglobin.	
Sperm cell	To reach female egg cell and fertilise it (fuse with it)	Tail for swimming. Acrosome with digestive enzymes to help break through egg cell. Mitochondria to provide energy.	

Egg cell	To be fertilised by a sperm cell	Only allows one sperm cell through membrane. Contains yolk which provides a large store of nutrients	
Root hair cell	to absorb water from the soil for the plant.	Thin membrane and a large surface area to speed up the rate of diffusion.	

**Week 5 - How can we see bacteria?**

Practical investigation  
**Aim 1-** To create plates using an **aseptic technique** to test what is living on your skin.  
**Aim 2 –** To investigate whether washing your hands has an impact on what’s living on your skin

Method (aseptic technique):

1. Wipe down the surface you are going to work on using antiseptic and blue roll.
2. Put the blue roll in the bucket provided – not the bin
3. Place a piece of foil on the desk
4. Set up a Bunsen burner and leave this on the blue flame near where you are working
5. Collect an agar plate, draw a line across the bottom and write your initials on it.
6. Your partner can take the lid off whilst you carefully rub your finger across the agar – do not push too hard.
7. Place the lid back on the plate and tape shut with a cross shape – do not completely seal the agar plate!
8. Turn off the Bunsen burner, and return the foil
9. Wipe down the area you have been working on with blue roll and place this in the bucket.

**Aseptic technique** means using practices and procedures to prevent contamination



**Week 6 - How can we use microorganisms?**

All living organisms can do the 7 following life processes:

**Movement**  
**Respiration**  
**Sensitivity**

**Growth**  
**Reproduction**  
**Excretion**  
**Nutrition**



Uses of fungi (yeast):  
**Making bread** - Carbon dioxide released in respiration causes the bread to rise.  
**Making beer** – through fermentation, air is kept out of the mixture so the yeast must anaerobically respire and make ethanol.

Uses of bacteria:  
**Making yogurt.** Method:

1. Heat 100cm<sup>3</sup> milk to 85°C in a beaker on a tripod and gauze.
2. Cool milk to 43°C, continue stirring
3. Add 1 teaspoon of starter (natural yogurt with bacteria in)
4. Put in plastic cup and cover in cling film with your name on.
5. These will be incubated. Bacteria are also found in our digestive system – these help us digest our food

**Aerobic respiration** word equation:  
 Glucose + Oxygen → Carbon dioxide + Water

**Anaerobic respiration** in yeast:  
 Glucose → Carbon dioxide + ethanol (an alcohol)