

## Knowledge Organisers for Year 8

Spring 1

### What is a Knowledge Organiser?

A Knowledge Organiser is a place to keep some key information for the topics we are learning about. This may include an important formula, vocabulary, dates or explanations. It is not a complete list of everything we are studying but it *is* a place where we can find the basic information. It is likely that when you first see the Knowledge Organiser you won't understand most of what it is on. Gradually, as you work on the content in lessons it will become more familiar and, over time, you should find that, not only do you understand everything on it, but that you can *remember* everything that is on it and, even better, know how this information relates to what you are studying.

### How do we use our Knowledge Organisers?

We can use our Knowledge Organisers in many ways. The main aim is that we are able to memorise, understand and eventually *apply* all of the information in the Knowledge Organisers. We will do this by:

- using them to refer to in class to support our learning.
- discussing them at home with parents or carers to reinforce our learning and so that others may be involved in what we are learning too.
- using them as learning homeworks that we will have quizzes on in class.
- using them to refer to when completing homework.

### Where will I find the Knowledge Organisers?

Knowledge Organisers will be made available to you via the school website <https://stjosephsbolton.org.uk> (Follow the link under school information to Learning & Teaching – Progression Scales) and your teachers will often send you links to them with your homework on epraise or in your class TEAMS. (You will find out more about these teams over your first year at St Joseph's).

LANDSCAPES WORD BANK

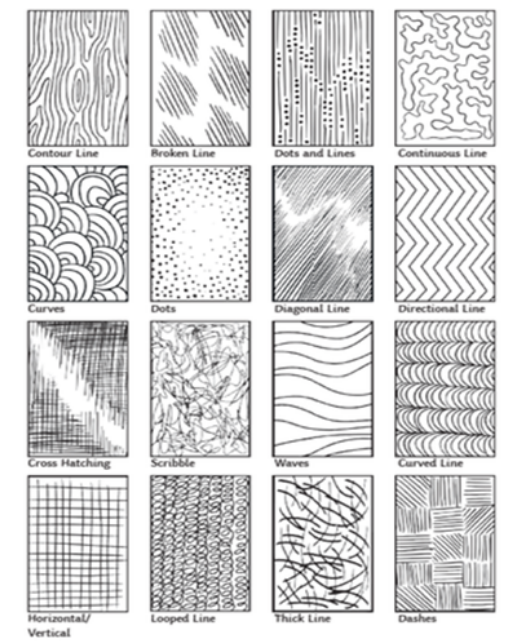
- Horizon Line - Where the land and the sky meet.
- Perspective - a 2D surface showing an image that appears as 3D. It gives the correct impression of their height, width, depth, and position in relation to each other.
- Arial Perspective - Colour and detail is less the further away an object is.
- Background - Objects that are furthest away from the viewer.
- Mid-ground - Objects that are in the between the foreground and background.
- Foreground - Objects that are closest to the viewer.



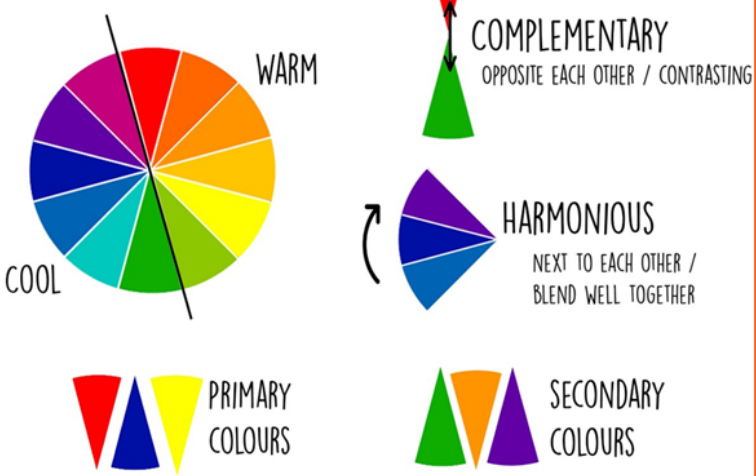
- Vincent Van Gogh
- Andre Derain
- Paul Cezanne
- Alice Sheridan

The Formal Element	Definition
Line	The path left by a moving point, e.g. a pencil or a brush dipped in paint, that can take many forms. e.g. horizontal, diagonal or curved.
Tone	The lightness or darkness of something. This could be shade or how dark or light a colour appears
Texture	The surface quality of something, the way something feels or looks like it feels. There are two types: Actual and Visual.
Shape	An area enclosed by a line. It could be just an outline, or it could be shaded in.
Pattern	A design that is created by repeated lines/ shapes/ tones or colours. It can be manmade, like a design on a fabric or natural, such as markings on animal fur.
Colour	There are 2 types including Primary and Secondary. By mixing any two primary together we get a secondary.

MARK MAKING



THE COLOUR WHEEL



**Colour Theory**  
**Primary Colours** are the 3 main colours. They cannot be made, but are used to make all other colours.  
**Secondary colours** are made mixing 2 primary colours.  
**Tertiary colours** are made by mixing a primary and secondary colour together.  
**Complimentary colours** are opposite on the colour wheel.  
**Harmonious colours** are next to each other on the wheel.  
**Tint** – When you add white to a colour to make it lighter.

**Shade**- When you add black to a colour to make it darker.

**Making objects look 3D**  
 To prevent your drawings from looking flat, you should use a range of tones and marks. Pressing harder and lighter and layering with your pencil creates different tones. Use the direction of your pencil to help enhance the 2D surface, and you can also include shadows which will also help objects appear 3D.

Art Technique Key Words	
Media/Medium	The materials and tools used by an artist to create a piece of art
Technique	The way an artist uses tools and materials to create a piece of art
Composition	Where you place objects on the page
Highlight	The bright or reflective area on an object or piece of art
Shadow/shade	The darker areas within a piece of art or object
Proportion	The size relationship between different parts - eg height compared to width

TO SHOW TEXTURE

# B-ICT Knowledge Organiser



## Small Basic

Operator	Meaning
==	Equal to
!=	Not equal to
>	Greater than
<	Less than
=>	Equal or more than
<=	Equal or less than

Key Term	Description
Code	The instructions for the computer telling it how to function
Input	Where data is entered into a computer by a user/human
Output	Where data is displayed by the computer. Examples include: text, images, sound, or video displayed on a monitor or through speakers.
Syntax	The rules for how the code is written.
Syntax error	Where the code doesn't work because of a mistake in the code or because of how it is written.
Logic error	A logic error is where the code works but it doesn't give the result that you wanted
Variable	A place to store a single piece of data
Selection	Where code is only run if something is True as if the computer is making a decision
Intellisense	Where the program tries to guess the code you are writing. Similar to autocorrect
Loop	Where code repeats. It can repeat forever, a set number of times or until a condition is met

Key Term	Description
Editor	The area in Small basic where you type the code
Graphics window	The window where drawings are made by the computer based on your instructions/code.
Text window	The window where text appears when running your program. Programs can print text to this window or the user can write text into it
For Loop	Allows you to run a piece of code a set number of times.  The following example will print out numbers from 1 to 10  <pre>For i = 1 To 10   TextWindow.WriteLine(i) EndFor</pre>
While Loop	Allows you to repeat code forever or until a condition has been met  The following code will print a set of random numbers until one that is greater than 100 is encountered.  <pre>While i &lt; 100   i = Math.GetRandomNumber(150)   TextWindow.WriteLine(i) EndWhile</pre>

Key Term	Description
IF	Allows you to make something happen IF a certain parameter is met i.e.  <pre>IF colour = "red" Then   TextWindow.WriteLine("That's my favourite too")</pre>
Math.RandomNumber()	Randomly generates a number up to the number entered in the brackets.

</> New
Save
Open
Import
Publish
Cut
Copy

```

1 ' A new Program!
2 TextWindow.WriteLine("What is your name?")
3 name = TextWindow.Read()
4 TextWindow.WriteLine("Hello " + name + "!")

```

**Helpful websites**  
<https://smallbasic-publicwebsite.azurewebsites.net/>



WISDOM HAS BUILT  
HERSELF A HOUSE.

Department of Design and  
Technology.

# Year 8 Design and Technology – Digital Graphics

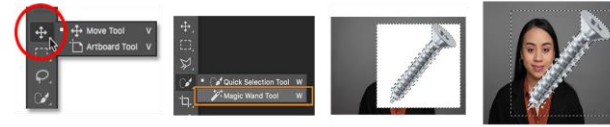
## One of four carousel modules



Keywords	Definitions
Graphics	Graphic design is using Computer software to create images. A graphic designer creates the images that can be published, printed, or electronic media, such as brochures and advertising.
Layer	In Photoshop each layer is one image stacked on top of another to form a complete image.
Brand	A brand is a name, term, design, symbol or any other feature that distinguishes one company to another.
Layout	Layout is the arrangement of fixed items such as image, text and style on a page.
Logo	Logos are images, texts, shapes, or a combination of the three that depict the name and purpose of a business
Client	The client is your customer. The person who will be using what you have created.
Cut	A designer can cut out or crop unnecessary parts of an image to improve framing, highlight a specific subject.
Copy and paste	Copy and paste are commands in a computer as a method of transferring data from one location to another.
Select	A selection isolates part of an image so you can work on that area without affecting the rest of the image.
Typeface / Typography	Typeface means the font. There are various styles on Typefaces (fonts).
Resolution	The detail of an image based on the number of pixels is known as resolution. An image looks clearer when it has a higher resolution.
Pixels	Pixels are square-shaped dots that make a digital raster image. The more pixels an image has, the higher its resolution.
Opacity	Opacity is the transparency of an image. The more transparent an image, the lower its opacity.
Hue / Saturation	Hue is pure color. Saturation is defined by the intensity of color.
JPEG, PNG, PSD,	File Formats. JPEG and PNG (Image that cannot be edited) PSD is the Photoshop Document that you can go back to and edit.
Composition	Composition is the arrangement of design elements that form a whole image.

Remove specific areas with the magic wand

Remove a background on Photoshop



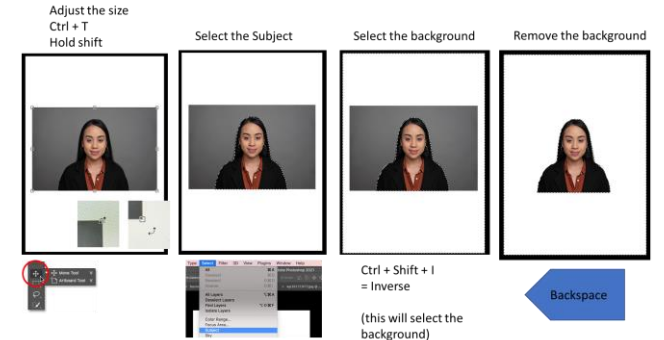
Click on the image you want to edit with the Move tool

Select the Magic Wand  
It might be behind the quick selection tool so find it click and hold to see the tools behind it

With the magic wand, click what you want to remove

Backspace

Ctrl + D = Deselect



Adjust the size  
Ctrl + T  
Hold shift





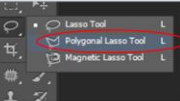



Select the Subject

Select the background

Remove the background

Ctrl + Shift + I  
= Inverse  
(this will select the background)

Backspace

Tool Bar	Select	Edit	File
Move tool 	Deselect Ctrl + D	Undo Ctrl + Alt + Z	Open New File > New > Print > A4
Size of image (Ctrl + T) -Hold shift to keep in shape -Enter, when done 	Select > Subject (person or object) 	Redo Ctrl + Y	Open (Recent) Files > This PC > your area E.g. (21jonesk@st-josephs...)
Magic Wand 	Inverse Ctrl + Shift + I (Backspace to remove)	Cut Ctrl + X	Save as SAVE IT IN YOUR AREA (21jonesk@st-josephs...)
Polygonal lasso tool 	Size of image (Ctrl + T)  -Hold shift to keep in shape -Enter, when done	Copy Ctrl + C	Film images
Eraser 	Colour range (Move tool and click on the image first) 	Paste Ctrl + V	Robot imagery bank Files > This PC > Students > Year 7 > Design and technology > Graphics > Imagery for Robot me

**Project brief:** Through learning how to use some basic skills in Photoshop, you will create the design for a Popcorn Tub from your choice of film including relevant packaging symbols and components. When your design has been completed, you will be able to assemble it and apply a foil finishing effect.

To practice at home you can use photopea which is a free web based programme.



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# Year 8 Design and Technology – Food

## One of four carousel modules



### Language for Learning

Diet related illness  
Diabetes type 2  
Obesity  
Coronary heart disease  
Tooth decay  
Sugary carbohydrates  
Starchy carbohydrates  
Saturated fat  
Insulin  
Plaque acid  
Energy balance



### Food Practical Tasks

Bolognese ragu  
Spaghetti carbonara  
Vegetable tart  
Oaty biscuits  
Sweet and sour chicken  
Chicken curry  
Pizza

### Key Practical Skills

Knife Skills  
Vegetable preparation  
Boiling  
Reduction Sauces  
High risk foods  
Shaping  
Baking  
Boiling  
Simmering  
Dough making  
Assembling



Bridge hold



Claw Grip



### Saturated Fats





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# Year 8 Design and Technology – Resistant Materials

## One of four carousel modules



In this module pupils will be designing and making a wooden trinket box, they will combine traditional and modern techniques and be expected to work in a safe manner at all times.

### Language for Learning

Physical Properties

Working Properties

Hardwoods

Softwoods

Manufactured Boards

Strength

Hardness

Recycling

Lifecycle



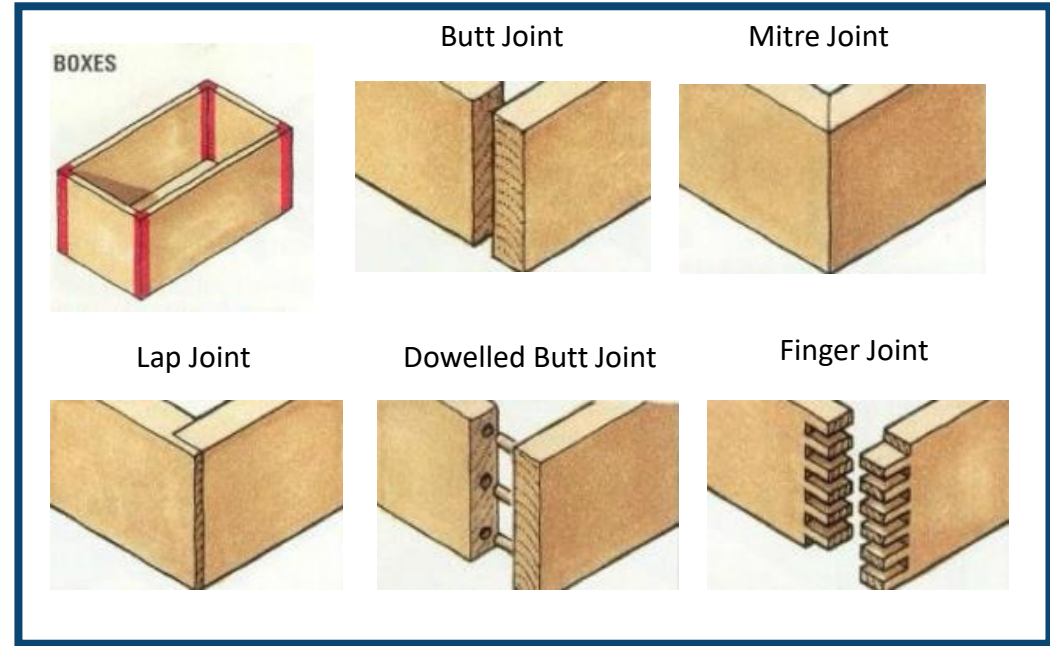
Goggles must be worn when using all machines



Long hair must be tied back in the workshop



Aprons must be worn during all practical work



### Softwoods



Pine

Spruce

Cedar

Fir

Comes from coniferous trees

This tree is an evergreen (green all year), needle-leaved, cone-bearing tree.

### Hardwoods



Beech

Oak

Ash

Teak

Comes from deciduous trees

This is a broad-leaved tree which loses its leaves in the winter.

### Manufactured Boards



- Sterling Board (OSB)
- Chipboard
- Exterior Plywood (WBP)
- Hardboard
- Medium Density Fibreboard (MDF)
- Laminboard
- Blockboard
- Battenboard
- Birch Ply
- Ply Sheathing

### Questions.

Can you name the machinery shown?

Why is there lots of signage around the workshop?

What does deciduous mean?

What does coniferous mean?

What is the difference between natural and manufactured timber?

What might the benefit be of using a finger joint?

Explain the difference between hardwoods and softwoods.

What do we mean by the term fixtures and fittings?



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# Year 8 Design and Technology – Textiles

## One of four carousel modules



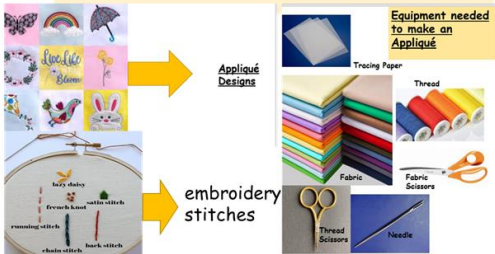
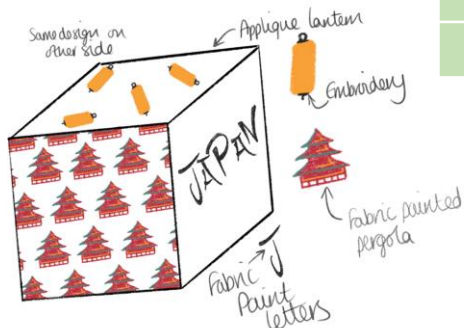
In this project you will consolidate your learning from Year 7- using hand and machine sewing skills. You will complete samples of fabric paint, applique and buttons/beads. Using a design brief you will complete a task analysis and choose a client to design a product for. Using different design techniques such as repeat pattern, 3d and isometric drawing to design your product. Using the knowledge and practical skills you will design and make a weighted door stop.

Key Words	Explanation
Needle	Used with thread to sew fabric together.
Fabric Paint	Applied to the surface of the fabric to add decoration.
Thread	Used with a needle to sew fabric together.
Applique	Layers of fabric applied on top of each other and sewn down.
Fabric Scissors	Used to cut fabric only.
Embroidery	A range of decorative stitches.
Fabric	Used as the main material in textile items.
Pins	Used to hold fabrics together temporarily.
Net	A paper template to produce your 3d object.
Isometric drawing	A method for visually representing three-dimensional objects in two dimensions

## Appliqué

### How to make an Appliqué

1. Choose an Image/Pattern to appliqué
2. Trace Your Image/Pattern onto a piece of tracing paper.
3. Cut Out your Image/Pattern.
4. Secure your Image/Pattern to the fabric using pins.
5. Cut Out your Image/Pattern from the fabric.
6. Secure your cut out fabric to your product.
7. Secure Your Appliqué (Image/Pattern) using pins
8. Stitch your Appliqué
9. Add Any Embellishments.



**What is the history of embroidery?**

While embroidery is practiced across the world, its origin stems from China and the Near East. Early embroidery can be traced back to Cro-Magnon days or 30,000 B.C. Archaeological finds from this time period reveals fossilized remains of heavily hand-stitched and decorated clothing



**Square Repeat**

**Half Drop**

**Half Brick**

**Net**

# Drama: Spring1 - Exploring Drama



## Areas for Assessment

<b>Creating</b>	The ability to work within a group to create and develop performance work.
<b>Performing</b>	The ability to present a character using physical and vocal skills.
<b>Evaluating</b>	The ability to discuss the qualities of a performance using dramatic language.

Suspense, Tension, Myth, Development, Backstory

## Dramatic Mediums to consider when Performing

<b>Facial Expression</b>	Consider the direction of your eyes and what they say to an audience. What position is your mouth in. Do you need to demonstrate control if this is in slow motion?
<b>Body Language</b>	Open or closed? Are you portraying a strong character who is outwardly focused or a nervous inwardly character?
<b>Gesture</b>	What are they doing with their hands? Can it help the audience understand what is going on?
<b>Use of Voice</b>	Have you considered the words you are going to say? The volume, tone, pitch and use of pause to convey meaning.
<b>Proxemics (space)</b>	Where do the performers stand in the space? Does the distance between characters tell us anything about their relationships?
<b>Audience Awareness</b>	Are the performers positioned in places where the audience can see them fully?

## Elements of Drama

**Script:** the text of the play

**Cast of Characters:** all of the characters, usually portrayed by actors

**Narrator:** the person who tells what happens during the play

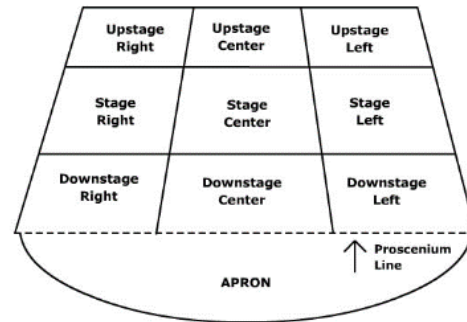
**Setting:** the time and place in the play

**Act:** a chapter in a play that contains more than one scene

**Scene:** the action that take place in a single setting

**Dialogue:** the words said by the characters

**Stage Directions:** written instructions telling the actors what to do



DO'S of mime ✓	DON'TS of mime ✗
DO Exaggerate characteristics	DON'T Turn your back on the audience
DO Face the audience	DON'T Laugh on stage
DO Be confident!	DON'T Look at the floor
DO Carry on if things go wrong	DON'T Rush through your lines
DO Make eye contact with the character you're talking to	DON'T Be nervous, just try your best!

Developing your ability to communicate tension and suspense through a dramatic performance. Using a plot line from famous Urban Myths as a starting point.



**Other Worlds: What will I study?**

You will study a range of fiction and poetry from across dystopian, science-fiction and fantasy genres, understanding the different 'ingredients' that make up these three genres. You will learn about different types of characters you might find across these three types of text, and begin to explore how to make effective characters yourself. You will learn how to incorporate features of these texts within your own writing, working towards creating a vivid piece of descriptive writing.

**Core Skill: Using Devices For Effect**

Change of Focus	When the writer deliberately shifts the focus from one thing to another, usually a change in characters, ideas or mood.	The focus then shifts to the growing fire "leapt" and "engulfed" and the "strong wind" – together these elements suggest the fire will take over quickly.
Foreshadowing	Foreshadowing is a narrative device in which a storyteller gives an advance hint of what is to come later in the story.	A pipe is going to burst, but before it does, the author writes a scene where the family notices a small dark spot on the ceiling, but ignores it.
Metaphor & Simile	Metaphor: Comparison between two things, when something becomes something else. A figure of speech. Simile: Comparison between two things using like or as.	Metaphor: Example/s: The road was a ribbon wrapped through the desert. Life is a journey. Simile: Examples: Jess is as graceful as a gazelle. The snake moved like a ripple on a pond.
Omniscient Character	The omniscient perspective is one where the narrator can comment on events, but also on character's personal thoughts and feelings.	He stood up. The guard was in his twenties, pale faced and puzzled. Alex had never seen him before, but more importantly, he had never seen Alex.

**Core Knowledge: Poetic Devices**

Alliteration	Using a series of words in succession that begin with the same consonant sound.
Assonance	Using a series of words in succession that begin with the same consonant sound.
Metaphor	A statement that is true and can be proven.
Personification	Someone's point of view of/about something. It is not always based on fact or knowledge.
Oxymoron	To repeat the same word/phrase/sentence more than once for effect.
Repetition	A question that does not require an answer, usually posed to emphasise an idea/opinion.
Rhyme	A statement/information that is untrue
Stanza	Words deliberately chosen to create emotion in the reader.
Symbolism	Factual data in numerical form used to convince the reader. (Either fractions or percentages)
Imagery	A list of 3 adjectives/phrases in succession for effect, usually to emphasise a strong idea.

**Key Vocabulary:**

WORD	Definition
<b>Corruption</b>	Dishonest or fraudulent conduct by those in power, typically involving bribery.
<b>Dystopia</b>	An imagined state or society in which there is great suffering or injustice.
<b>Integrity</b>	The quality of being honest and having strong moral principles.
<b>Oppression</b>	Prolonged cruel or unjust treatment or exercise of authority.
<b>Peace</b>	Freedom from disturbance; tranquillity.
<b>Utopia</b>	An imagined place or state of things in which everything is perfect.

**Top Tips for exploring the effect of devices:**

Consider **why** and **how** a device has been used and the effect on the reader.

In your own writing, is the device used **effective** and **appropriate**?

Use a **range** of devices rather than just one or two. **Avoid overuse** of certain devices. Does the device suit the tone and purpose of your writing?

Consider **why** and **how** a poetic device has been used and the effect on the reader.

When analysing an unseen poem why is the device effective?

Comment on a range of devices rather than just one or two. Remember to use subject terminology but don't just 'feature spot' comment on the effect.

**SMSC & BIG QUESTIONS**

What is the importance of individual liberty over doing the right thing?

Can power corrupt?

Les Questions Clés

Où habites-tu?  
Where do you live?



Tu es de quelle nationalité?  
What is your nationality?

habiter
je
j'habite
j'ai habité
je vais habiter

Verb Infinitives ending in 'er':

Take off 'er', add	e.g. 'habiter' – 'to live'			
e	(je) j'	habite	(I)	(live)
es	tu	habites	(you)	(live)
e	il	habite	(he)	(lives)
e	elle	habite	(she)	(lives)
ons	nous	habitons	(we)	(live)
ez	vous	habitez	(you)	(live)
ent	ils	habitent	(they)	(live)
ent	elles	habitent	(they)	(live)

Les nationalités

- anglais / English
- français / French
- espagnol / Spanish
- écossais / Scottish
- irlandais / Irish
- britannique / British
- polonais / Polish
- irakien / Iraki
- yéménite / Yemeni
- somalien / Somali
- coréen / Korean

Où habites-tu?

- Marseille  J'habite à Marseille en France. Je parle français.
- Dublin  J'habite à Dublin en Irlande. Je parle irlandais.
- Madrid  J'habite à Madrid en Espagne. Je parle espagnol.
- Cardiff  J'habite à Cardiff au Pays de Galles. Je parle gallois.
- Athens  J'habite à Athens en Grèce. J parle grec.
- Rome  J'habite à Rome en Italie. Je parle italien.
- Glasgow  J'habite à Glasgow en Écosse. Je parle anglais.

AT HOME

Use the phrase: J'habite = I live

To improve your writing, say where you would like to live: Je voudrais habiter.

Une maison

Un appartement

REMEMBER: The adjective must agree with the noun:

J'habite une grande maison

J'habite un petit appartement

MASCULINE	FEMININE
-----------	----------

Grand	Grande
-------	--------

Petit	Petite
-------	--------

Vieux	Vieille
-------	---------



## Les Questions Clés



Qu'est-ce qu'il y a dans ta ville?  
What is there in your town?

Est-ce que tu aimes ta ville?  
Do you like your town?



Pourquoi?  
Why?

Qu'est-ce que tu vas faire en ville?  
What are you going to do in town?

### Using il y a

Il y a means 'there is'. It is followed by 'un' or 'une' depending on whether the noun is masculine or feminine.

Il y a un café  
There is a café

Il y a une patinoire  
There is an ice rink

Il n'y a pas means 'there is not'. It is always followed by de and never 'un' or 'une'.

Il n'y a pas de café  
Il n'y a pas de patinoire

## AROUND TOWN

When you describe what is in your town, use the phrase 'il y a...'

Il y a un stade = There is a stadium

Il y a une patinoire = There is an ice rink

When you say what isn't in your town, use il n'y a pas DE

Il n'y a pas DE stade

Saying what you can do in town

Use 'on peut' + INFINITIVE

On peut aller au concert

You can go to a concert

On peut faire les magasins

You can do the shopping

Où est? = where is?

Où est le restaurant? = where is the restaurant?

C'est à gauche = it's on the left

C'est à droite = it's on the right

Entre = between

Devant = in front of

Derrière = behind

### TELLING THE TIME (12 hour clock)

#### IMPORTANT:

Always start the time by saying the hour first.



Je me lève à huit heures = I get up at 8 o'clock

J'ai maths à une heure et demie = I have maths at half past one

J'ai histoire à deux heures moins dix = I have history at ten to two

### Le vocabulaire

• Adjectifs: « pour décrire »

Un pays, une ville, une région, une province.....

- Pluvieux (se): rainy
- frais, fraîche: cool, fresh
- Riche en....(agriculture)
- Pauvre .....(son sol est pauvre)
- Attrayant (e) .....(attire les touristes)
- Vert(e)
- Moderne
- Unifié (e)
- économique.

### POUR DÉCRIRE UNE VILLE

• Des lieux dans la ville:

- Marché
- Musée
- Restaurant
- Cinéma
- Collège
- Magasin
- Épicerie
- Rue
- Champs
- Maison
- Appartement
- Parc
- Pharmacie
- Boulangerie
- Théâtre
- Église

### Situer – décrire un lieu

- Au nord / sud / du Japon...
- À l'est / l'ouest de l'Espagne
- Au centre de l'Italie
- À 300 kilomètres de Madrid
- C'est une région à l'est de la capitale
- À une heure de Paris (en voiture, en train)
- Il y a 6 millions d'habitants
- C'est une petite ville de 60.000 habitants
- C'est une grande / petite ville
- C'est une ville moyenne
- C'est un grand / petit pays
- C'est un pays moyen
- On peut visiter...
- Les gens sont très ouverts, sympathiques...
- Les monuments principaux sont.....

## Perceptions of Africa

Perceptions are the way people perceive something, for example many people's perception of Africa is that it is wretchedly poor and impoverished. However, in many places in Africa this is a **misconception**.



Many parts of Africa are poor and impoverished, but many parts are not. Misconceptions are borne from a lack of information, and we must be critical about where we get our information from in whatever form of media that is.



**Africa** is the world's second largest and second most-populous continent, being behind Asia in both categories. The continent is surrounded by the Mediterranean Sea to the north, the Isthmus of Suez and the Red Sea to the northeast, the Indian Ocean to the southeast and the Atlantic Ocean to the west. The continent includes Madagascar and various archipelagos. It contains 54 fully recognised sovereign states (countries),

Africa's physical features



One of the physical features in Africa is deserts, for example the Sahara, in northern Africa. There is very limited plant and animal life due to the difficult living conditions.



Rainforests are also pervasive across Africa and lie in central areas, due to the slightly cooler and wetter temperatures further south from the equator. Very many plant and animal species live here, but they're under threat from deforestation.

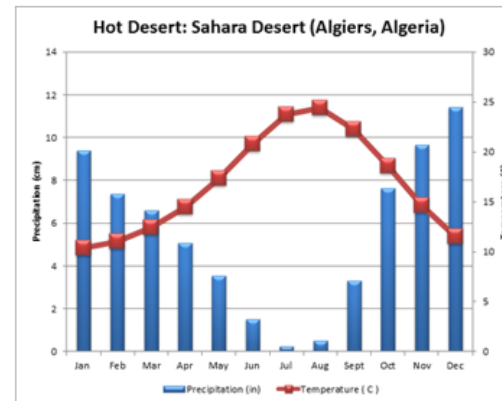
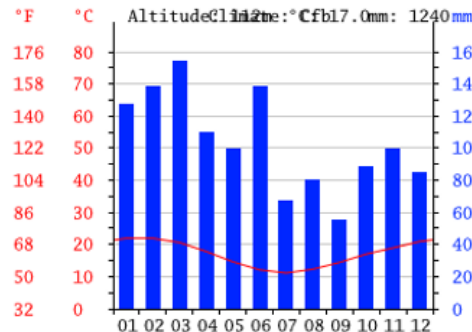
Different ecosystems in Africa

There are lots of different ecosystems in Africa – rainforest, desert, savanna, etc. Deserts and rainforests have been explained above, but the savanna regions have more seasonal weather with rainy and dry seasons all year round. Many species of grass grow, and more rainfall leads to more diverse wildlife such as zebra, wildebeest, giraffe and buffalo which migrate to follow the rainfall.



Climate of Africa

The climate in Africa is extremely varied due to the location of the place relative to its latitude. This means places in the south of the continent, such as Sutherland, South Africa (see left climate graph) is much cooler (temperature shown by red line graph) and wetter (blue bar chart) than in the Sahara Desert.



### Nomadic tribes

Nomads are people who move from place to place to live rather than settling in a single place. Usually, this is to take advantage of crops all year round in challenging environments. Their livelihoods are often drastically different to western cultures, and they have deep rooted traditions. Sadly, these tribes' futures are at risk due to issues of desertification and political issues with national governments.



### Reducing poverty

Poverty is rife in Africa, with around 50% of Africans living in poverty and around 40% being illiterate (they cannot read or write). However, Africa is extremely rich in terms of the resources (oil, gas, crops etc.) that it has naturally. Therefore, it is confusing and complex as to why Africa is the poorest continent on Earth by far.



In order to reduce poverty, we can seek to improve education to give young children the best chance of getting well-paying jobs. Increasing tourism opportunities also opens these communities up to wages and job opportunities. Water supplies being improved can also improve health and improving the quality and quantity of hospitals and healthcare services would also help here. Improving transport links would help to allow people to move around in search of employment and living facilities more easily and would increase trade.

## The British Empire

### Key words

**Empire** – A group of countries ruled over by one monarch or government.

**Colony** – A country belonging to the Empire of another country and under their control.

**Colonialism** – the policy of gaining and controlling countries as part of an empire.

**Imperialism** – A country extending its power by taking control of other countries to add them to its empire.

**Independence** - Being free of control from another country.

**The East India Company** – A British company that became the most powerful in the world, ruling much of India.

**Monopoly** - When one company or person has the sole right to trade a particular good.

**Global** – worldwide.

**British West Indies** – Islands in the Caribbean Sea, controlled by Britain.

**Political dominance** - power over how a place and its people are governed.

**Economic exploitation** - unfairly taking advantage of people in the colonies to increase Britain's own wealth.

**Culturalism** – the belief that British culture was superior to the culture of the colonies in the British Empire.

**Racism** – the belief that the white British race was superior to the other races in the British Empire

### Key ideas

The British Empire began with the East India Trading Company.

In the 17th century, the company set up colonies in North America and India.

The British Empire was built up further during the 18<sup>th</sup> and 19<sup>th</sup> centuries.

The British West Indies were Caribbean islands that were part of the British Empire.

The British Empire allowed Britain to show its power overseas and to make vast sums of money.

In 1776, Britain's thirteen American colonies become an independent country - the United States of America.

In the nineteenth century, Britain gained more colonies in Asia, Africa and Australia.

By the end of the 19<sup>th</sup> century, the British Empire stretched over 23% of the world.

# Slavery



## Key words

**Atlantic Slave Trade** – the trade in people, stolen from Africa

**Triangular Trade**– the three way trade: British and European traders exchanging manufactured goods for African people and, selling African people in America, to buy raw goods for the factories in Britain/Europe.

**The Middle Passage** – the terrible journey taken by the slaves on the slave ships, from Africa to America.

**Slave Auctions** – the selling of slaves to plantation owners in the Americas.

**Plantations** – large farms that grew one type of crop in the Americas e.g. cotton, tobacco or sugar.

**Resistance** – Slaves who refused to do as their masters told them.

## Key ideas: Life on a Plantation

- Life on the slave plantations was very hard. Back breaking work for long hours and no pay
- Any slave resistance was punished severely, especially slaves who tried to run away, who could be beaten, battered or burned
  - The selling of family members was a feature of slavery in the Caribbean and America, causing appalling suffering to the slaves.
- There was an “underground railroad” in the 19<sup>th</sup> century, which was a group of people who helped slaves to escape to Canada and safety. However the journey was dangerous and many died or were caught.
- Harriet Tubman was an important “conductor” on the railroad, who rescued hundreds of slaves.
- She also fought in the Union Army in the Civil War.

## Key ideas – from person to possession

- Africa had its own civilizations, which were destroyed by the slave trade
- Before the Atlantic Slave Trade, slavery was not based on skin colour.
- At least 12 million people were taken from Africa and most were men, which badly affected the West of Africa.
- The trade caused wars and rivalries between the African kingdoms and introduced guns to Africa.
- Slavery completely dehumanized the people caught up in it.
- The Middle Passage was an horrific experience for the slaves, most of whom were chained up below decks in filthy conditions.
- People were whipped, beaten and assaulted and the sick were thrown overboard to drown. Many of the African people did not survive the voyage.
- Those who made it through the Middle Passage were sold at auction. Almost all of them were separated from anyone they had made the voyage from Africa with.



# Protest Movements



**Key words: Industrial Revolution Protests**  
**Protest Movements** – a group of people who want to change something, often how society is run.

**Violent** – using physical strength to harm, hurt or destroy

**Desperation** – feeling of despair, that can lead to reckless behaviour

**Riot** – a violence disturbance by a crowd of people

**Trades Union** – an organization of workers, who campaign to get better rights from their employers

**Massacre** – the brutal slaughter of many people.

**Livelihood** – a way to get the necessities of life: food, shelter and clothing.

**Threshing machine** – power driven machine for separating the grain from corn or other crops.

**Capital crime** – a crime carrying the death penalty

**Magistrates** – Judges who hear cases in court and decide guilt or innocence and

**Peterloo** – A massacre took place at St Peter's Field, Manchester, on 16 August 1819.

**Radicals** – Politicians who wanted change to improve the lives of the working classes.

**Parliament** – this is the group that run the country, voted into power by the electorate.

**Electorate** – people that have the right to vote

**Cavalrymen** – soldiers on horseback

**Assembling** – gathering together

**Unlawful** – against the law

**Banners** a long cloth bearing with slogan or design, carried in a demonstration.

**Key ideas: Industrial Revolution Protests**

**Exciting discontent** – encouraging people to

**The Luddites, 1811-12.** Handloom weavers in the production of textiles, who lost their livelihoods due to the new machinery. They became “machine breakers”, which was made a capital crime

**The Protesters at St Peter's Field, Manchester 1819** who were attacked by the army, leading to the Peterloo massacre.

**The Swing Riots** – these were riots by farm labourers who were losing work due to the new threshing machines. They also became machine breakers and many were hanged.

**The Tolpuddle Martyrs, 1834:** farm labourers in Dorset who joined the GNCTU and were transported to Australia.

**The Chartists** – working class men, campaigning for the right to vote and for the industrial cities to be able to return a candidate to Parliament.

**Key words: The Suffragettes**

**Suffragists** – activists who used non-violent and legal action to get the right to vote

**Suffragettes** – activists who fought for the right for women to vote using direct action, including illegal and violent activities

**The franchise** – the right to vote in elections

**Civil and Political rights** – protection for people from oppression

**Oppression** – unjust treatment, the unfair exercise of authority over someone

**Petition** – a request for a change in the law, presented to parliament & signed by those who support it.

**Key ideas: The Suffragettes**

**Emmeline Pankhurst & her daughters Sylvia and Christabel** – the leaders of the Suffragettes

**Deeds not words** – the Suffragettes used direct action so that they would not be ignored

**Hunger Strike** – the Suffragettes went on hunger strike when they were imprisoned

**Force-feeding** – the Suffragettes began to be force-fed in prison, when they stopped eating

**The Cat and Mouse Act** – the early release of prisoners who were weak after hunger striking, who were re-called to complete their sentence once they were recovered.



# BRACKETS, EQUATIONS AND INEQUALITIES

Simplify, Substitute, Equivalent, Coefficient, Product, Highest Common Factor (HCF), Inequality, Expression, Equation, Term, Identity, Formula

## What should I be able to do?

- Form expressions
- Expand and factorise single brackets
- Form and solve equations
- Solve equations with brackets
- Represent inequalities
- Form and solve inequalities

## Directed numbers:

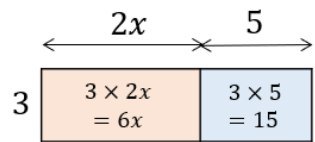
- ++ → +
- + - → -
- + → -
- → +

## Multiply Single Brackets:

$$3(2x + 5) = 6x + 15$$

Multiplication can be represented by repeated addition

2x + 5	2x + 5	2x + 5
x x 5	x x 5	x x 5
6x + 15		



$3(2x + 5)$  is the area

## Solve Equations with Brackets:

$$3(x + 5) = 12$$

Expand the brackets

$$3x + 15 = 12$$

Subtract 15 from both sides

$$3x = -3$$

Divide both sides by 3

$$x = -1$$

### Challenge question:

Solve  $3(x + 5) = 12(x - 3) - 12$

$$2(a + b)$$

Expression

$$P = 2(a + b)$$

Formula

$$2(a + b) \equiv 2a + 2b$$

Identity

## Inequalities:

> Greater than

< Less than

≥ Greater than or equal to

≤ Less than or equal to

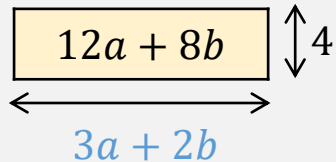
What is the smallest integer, when three more than double my number is greater than 10?

$$2x + 3 > 10$$

$$x > 3.5$$

Smallest possible integer value = 4

## Factorise into a single bracket:



$$12a + 8b = 4(3a + 2b)$$

Select the HCF of the terms in the question

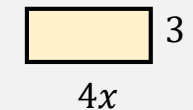
## Form Expressions: For unknown variables, a letter is normally used in it's place.

More than implies add.

Less than/difference implies subtract

Eg: 4 more than t →  $t + 4$

Reminder: only similar terms can be grouped together



The perimeter of this shape is:

$$4x + 3 + 4x + 3 \equiv 8x + 6$$

## What should I be able to do?

- Generate a sequence from term to term rules or position to term rules
- Recognise arithmetic sequences and find the nth term
- Recognise geometric sequences and other sequences that arise

Sequence, term, position,  
linear, non-linear,  
difference, arithmetic,  
geometric



**Linear Sequences** – increase by addition or subtraction and the same amount each time.

**Non-linear sequences** – do not increase by a constant amount – quadratic, geometric, Fibonacci

- Do not plot as straight lines when modelled graphically
- The differences between the terms can be found by addition, subtraction, multiplication or division

### Fibonacci sequence

**0, 1, 1, 2, 3, 5, 8, 13, ...**

Each term is the sum of the two previous terms

### Sequences from Algebraic Rules: Substitution

$2n + 5$       Substitute the number of the term you are looking for in place of 'n'

**1<sup>st</sup> term**       $2(1) + 5 = 7$

**2<sup>nd</sup> term**       $2(2) + 5 = 9$

**3<sup>rd</sup> term**       $2(3) + 5 = 11$

So the sequence is **7, 5, 9, ...**

This is a linear sequence and can also be identified by the single power of **n**

To check if **201** is in this sequence, form an equation

$2(n) + 5 = 201$       and solve to see if there is an integer solution

**Complex Algebraic Rules:** Take care with the subtle differences between the way terms are written.

$2n^2$  means 2 multiplied by whatever n squared is

**1<sup>st</sup> term**       $2 \times 1^2 = 2$

**2<sup>nd</sup> term**       $2 \times 2^2 = 8$

**3<sup>rd</sup> term**       $2 \times 3^2 = 18$

$(2n)^2$  means 2 multiplied by n and the square the answer

**1<sup>st</sup> term**       $(2 \times 1)^2 = 4$

**2<sup>nd</sup> term**       $(2 \times 2)^2 = 16$

**3<sup>rd</sup> term**       $(2 \times 3)^2 = 36$

### Finding the Algebraic Rule: What is the nth term for the sequence **7, 11, 15, 19, ...**?

$4n$  is the 4 times table,      **4, 8, 12, 16, ...**



**7, 11, 15, 19, ...**

This has the same constant difference, but is 3 more than the 4 times table

$4n + 3$

$4n + 3$

This is the constant difference between the terms in the sequence

This is the comparison (difference) between the times table it links to and the sequence

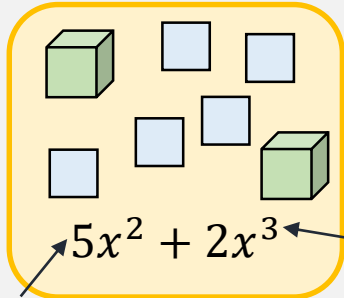
## What should I be able to do?

- Add/Subtract indices with powers
- Multiply expressions with indices
- Divide expressions with indices
- Know the addition and subtraction law for indices

Base, Power, Exponent,  
Indices, Coefficient,  
Simplify, Product



### Addition/Subtraction with indices



Each square represents  $x^2$  and each cube represents  $x^3$

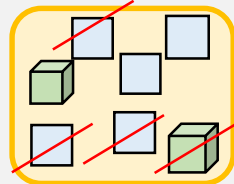
Power

$2x^3$  is a term

Coefficient

Only similar terms can be simplified. If they have different powers, they are unlike terms

$$5x^2 + 2x^3 - 3x^2 - x^3$$



$$2x^2 + x^3$$

### Multiply expressions with Indices:

$$\begin{aligned} 5a \times 3b & \\ \equiv 5 \times a \times 3 \times b & \\ \equiv 5 \times 3 \times a \times b & \\ \equiv \underline{15ab} & \end{aligned}$$

$$\begin{aligned} 7c \times 2c & \\ \equiv 7 \times c \times 2 \times c & \\ \equiv 7 \times 2 \times c \times c & \\ \equiv \underline{14c^2} & \end{aligned}$$

$$\begin{aligned} 5d^3 \times 3d^2 & \\ \equiv 5 \times d \times d \times d \times 3 \times d \times d & \\ \equiv 5 \times 3 \times d \times d \times d \times d \times d & \\ \equiv \underline{15d^5} & \end{aligned}$$

This is one way to do a calculation like this. Breaking down the question and writing it in full can help.

### Divide expression with indices:

$$\frac{18}{60} = \frac{\cancel{2} \times \cancel{3} \times 3}{\cancel{2} \times 2 \times \cancel{3} \times 5} = \frac{3}{10}$$

$$\begin{aligned} \frac{5a^3b^2}{15ab^5} &= \frac{\cancel{5} \times \cancel{a} \times a \times a \times \cancel{b} \times b}{3 \times \cancel{5} \times \cancel{a} \times \cancel{b} \times b \times b \times b} \\ &= \frac{a^2}{3b^3} \end{aligned}$$

$$\frac{23a^3d^2}{5eb^5}$$

This expression cannot be divided (cancelled down) because there are no common factors or similar terms

### Addition/Subtraction laws for indices:

$$\begin{aligned} 3^2 \times 3^4 & \\ = (3 \times 3) \times (3 \times 3 \times 3 \times 3) & \\ \text{The base number remains the same so it can be simplified} & \end{aligned}$$

$$\rightarrow 3^6$$

Addition law for indices

$$a^m + a^n = a^{m+n}$$

$$3^5 \div 3^2 = \frac{\cancel{3} \times \cancel{3} \times 3 \times 3 \times 3}{\cancel{3} \times \cancel{3}}$$

$$\rightarrow 3^3$$

Subtraction law for indices

$$a^m \div a^n = a^{m-n}$$

# Music: Spring 1 - Pop Music



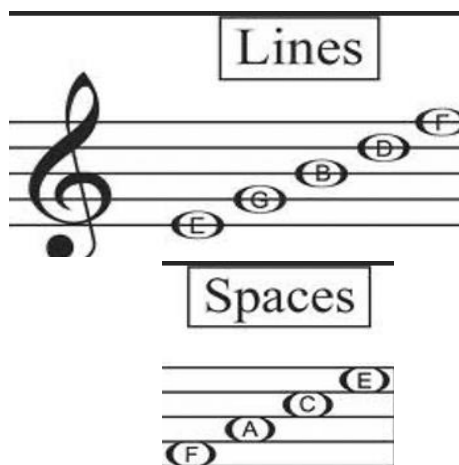
<b>Tempo</b>	<b>Fast</b>	The speed of the music. Italian musical terms are used to describe this.
	<b>Slow</b>	
	<b>Lento</b>	Slow
	<b>Andante</b>	At a medium (walking) pace
	<b>Moderato</b>	At a moderate speed
	<b>Allegro</b>	Fast
	<b>Accelerando (accel)</b>	Getting faster
	<b>Rallentando (rall)</b>	Getting slower
	<b>Duration</b>	<b>Long</b>
<b>Short</b>		
<b>Texture</b>	<b>Thin texture</b>	A solo or small number of instruments
	<b>Thick texture</b>	Lots of instruments.
<b>Timbre</b>	<b>Sonority</b>	Instrumentation – the unique sound or tone quality of different instruments, voices or sounds.
	<b>Instrumental sound</b>	

<b>Pitch</b>	<b>High</b>	The highness or lowness of a sound.
	<b>Low</b>	
	<b>Stepwise</b>	Moving one note at a time
	<b>Leap</b>	Jumping to the next note.
<b>Articulation</b>	<b>Smooth</b>	Playing notes in a long, smooth way
	<b>Legato</b>	
	<b>Detached</b>	Playing notes in a short, detached, spiky way.
	<b>Staccato</b>	

## Peer feedback prompts

WWW What went well... EBI Even better if...

Self-reflection  
What step are you working at?  
What do you need to do to achieve the next step?

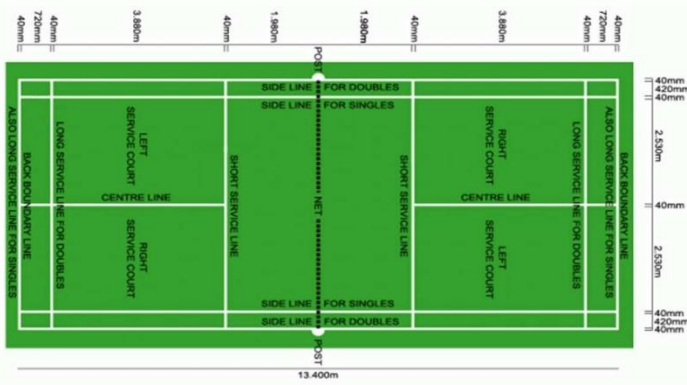


<b>Dynamics</b>	<b>Loud</b>	The volume of the music. Italian music terms are used to describe this.	
	<b>Soft</b>		
	<i>pp</i> pianissimo		Very quiet
	<i>p</i> piano		Quiet
	<i>mp</i> mezzo piano		Moderately quiet
	<i>mf</i> mezzo forte		Moderately loud
	<i>f</i> forte		Loud
	<i>ff</i> fortissimo		Very loud
	Crescendo <		Gradually getting louder
	Diminuendo >		Gradually getting quieter

1. Key Words	
<b>Chord</b>	A group of two or more notes played at the same time. They do not normally clash.
<b>Melody</b>	In a song the melody is the tune that the lead vocalist sings.
<b>Lyrics</b>	The words to a song.
<b>Riff</b>	A repeated melody, rhythm or chord pattern. Normally the most recognisable part of the song.
<b>Structure</b>	The order of sections within a song. Example: Verse, Chorus.
<b>Homophonic</b>	Refers to the texture of a song – generally meaning there is a melody part accompanied by chords.
<b>Accompaniment</b>	Backing part which supports the melody/tune.

2. Song Structure	
<b>Verse</b>	The verse is what sets the scene of a song and usually tells a story. The melody will stay the same but the words may change between each verse.
<b>Chorus</b>	The main hook of the song, usually the part that gets stuck in your head! The lyrics are usually the same in every chorus of a song.
<b>Bridge</b>	A linking section normally used between a verse and chorus section.
<b>Middle 8</b>	8 bars in the middle of a song that sounds completely different to the rest of the song.
<b>Intro/Outro</b>	The beginning/ending section of a song.
<b>Solo</b>	A section of the song where the main melody isn't provided by the voice. This is usually played by an electric guitar.

# Badminton



**READY POSITION** – balanced stance, side on, racket up, ready to go, on toes.

**SERVING** – There are several types of serve – short/backhand, long, flick. A backhand serve should land close to the service line on your opponents side of the net. The racket head must start from below the waist.

**UNDERARM CLEAR (long serve)** – This shot is played high to the back of your opponents court. Start sideways on and use a whip action with the wrist to create power.

**OVERHEAD CLEAR** – Played to the back of your opponents' court and is a defensive shot. Start sideways on, racket up and behind you, focus on making contact with the shuttle in front of you.

**DROP SHOT**- a shot played with finesse to land the shuttle as close as possible to the net on your opponent's side.

**SMASH SHOT** – This is the main attacking shot in badminton. It is an overhead shot, hit in front of the body, that aims to get the shuttle down on the floor at a sharp angle. The wrist needs to “snap” to get it down.

## Tactics:

Hitting into space – keep your opposition moving around the court

Shot selection – selecting the right shot for the right situation

Targeting opponents weaknesses

Disguised shots – trying to make it look like you are going to play a particular shot but then play a different shot to fool an opponent.

Doubles play – role of players in doubles. Front/back formations or side to side.

## Rules

Game starts with a diagonal serve- right hand side to right hand side  
Serve must land over the service line

Play to 21 points – but must win by 2 clear points.

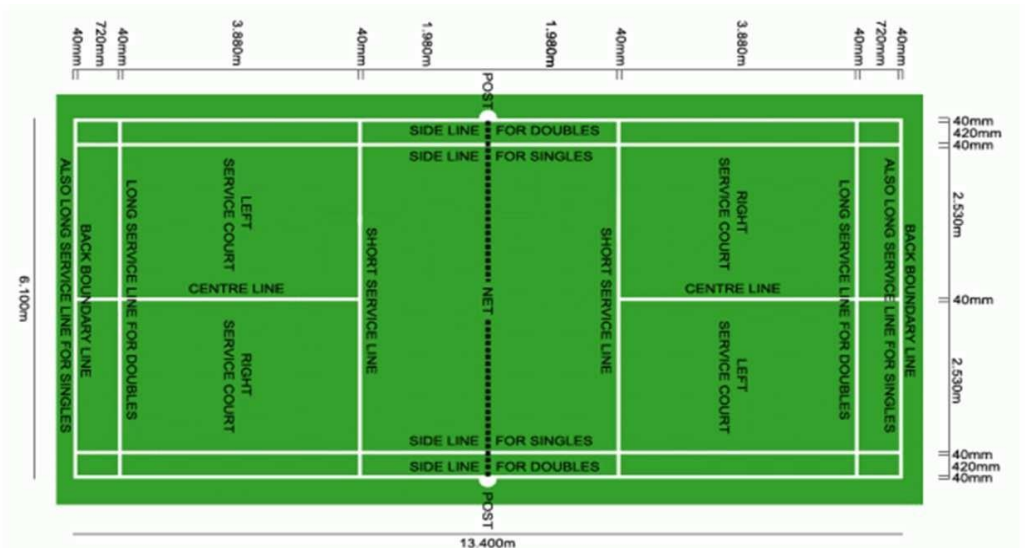
A point is won every rally

Whoever wins the point serves next

When score is even, serve from right, when score is odd, serve from left

Court is long and thin for singles, short and wide for doubles

You cannot hit the net with your racket or body



## Glossary of Key Vocabulary

**Sacrament** – an outward sign of an inward gift.

**Baptism** – the first rite of passage welcoming a new Christian into the Church.

**The Holy Spirit** – the third person of the Trinity. The power of God in the world today.

**Fruits of the Spirit** – good qualities a Christian should show.

**Gifts of the Spirit** – special graces that are received through the sacrament of confirmation.

**Confirmation** – the second sacrament where Catholics take on their baptismal promises for themselves.

**Eucharist** – the sacrament where Catholics receive the body and blood (bread and wine) of Jesus according to his command at the Last Supper.

**Reconciliation** – the sacrament where Catholics confess and are absolved of their sins.

**Marriage** – the holy union of a man and woman in the eyes of God and the law.

**Vows** – special promises of commitment.

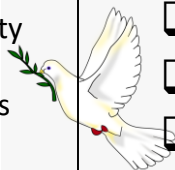
**Holy Orders** – the sacrament in which a man commits himself to God.

**Ordination** – being made a deacon, priest or bishop.

**Priest** – a man who has been ordained in the Catholic Church.

**Bishop** – a senior priest with responsibility for a diocese.

**Anointing** – being blessed with holy oil as part of a sacrament.



# Year 8 RE

## Spring 1 Sacraments



### Overview

This half term you are learning about the seven sacraments of the Catholic Church, where they came from and why they are important to Catholics today. The sacraments are holy rituals, began or approved by Jesus, in which God's blessing is given through the holy spirit (God's presence on earth). The seven sacraments in the Catholic Church are baptism, reconciliation (confession), Eucharist (Holy Communion), confirmation, marriage, Holy orders (ordination), and anointing/sacrament of the sick. Sacraments are important for Catholics because God is invisible so although often people cannot or do not 'feel' or 'see' God, they are able to experience God in a 'real' way, through the sacraments at important times in their lives.

### Checklist of what you will learn this half term:

- Introduction to Sacraments
- Baptism
- Gifts of the Holy Spirit
- Confirmation
- Eucharist
- Reconciliation
- Marriage
- Sacrament of the sick
- Holy Orders

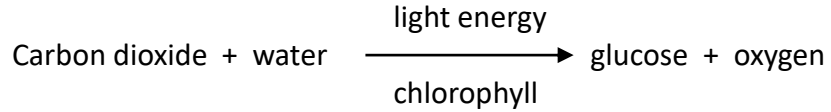


### Key Sources of Wisdom and Authority (Religious Teachings):

- *"Go therefore and make disciples of all nations, baptizing them in the name of the Father and of the Son and of the Holy Spirit"* (Matthew 28:18-20)
- *"We have different gifts, according to the grace given us..."* (St Paul in Romans 12)
- *"This is my body given for you; do this in remembrance of me"* In the same way, after the supper he took the cup, saying, *"This cup is the new covenant in my blood, which is poured out for you..."* (Luke's Gospel).
- *"When the day of Pentecost came, all the believers were gathered together in one place. ....They were filled with the Holy Spirit".*(Acts 2:1-4)

## Photosynthesis

- A chemical reaction IN PLANTS that produces glucose
- Needs carbon dioxide from the air, and water from the soil
- Also needs light energy (from Sun) and chlorophyll to absorb the light energy
- Happens in chloroplast



## Uses of glucose in a plant

GLUCOSE IS A SUGAR

The two main uses of glucose in a plant are – **respiration** (to release energy) and making **starch** (for storage)

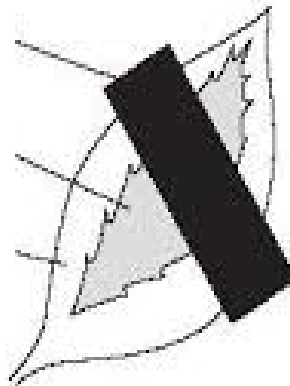
When the plant cannot make glucose (overnight, during the winter) it breaks starch back down to glucose, this can then be used in respiration (to release energy)

## Testing leaves for starch

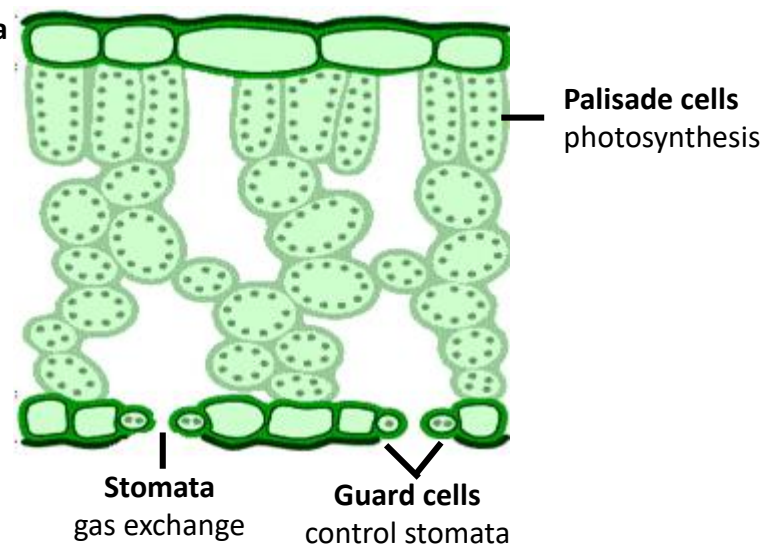
**Covered part of leaf** – no light energy – no photosynthesis – no glucose – no starch

**Green part of leaf** – photosynthesis – glucose – starch

**White part of leaf** – no chlorophyll – no photosynthesis – no glucose – no starch



## Structure of a leaf



## Respiration

- A chemical reaction that **releases energy from glucose**
- Happens in ALL living cells, ALL of the time – animals, plants and microbes
- There are two types – **aerobic** and **anaerobic**

## Aerobic respiration

- Releases **MORE** energy from glucose
- Needs oxygen
- $\text{Glucose} + \text{oxygen} \rightarrow \text{carbon dioxide} + \text{water}$

## Anaerobic respiration

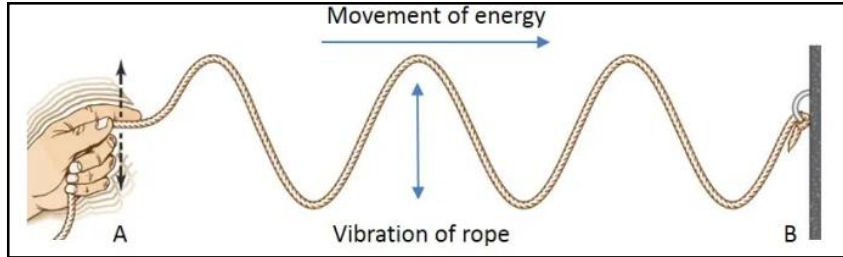
- Releases **LESS** energy from glucose, as it is incompletely broken down
- Happens when there is no oxygen

IN ANIMALS:  $\text{Glucose} \rightarrow \text{lactic acid}$   
Happens during strenuous exercise. The lactic acid produced makes the muscles ache.

IN PLANTS & YEAST:  $\text{Glucose} \rightarrow \text{carbon dioxide} + \text{ethanol}$   
In yeast, this is called fermentation.

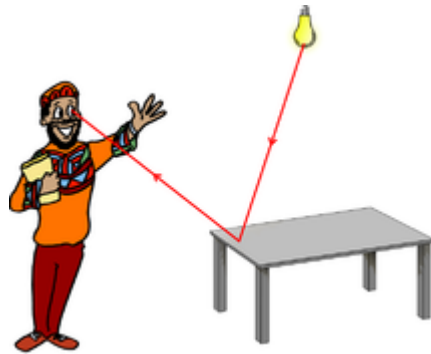


## Transverse waves



- ALL waves transfer energy
- Light waves are an example of a transverse wave
- The oscillations (vibrations) are at right angles to the direction of energy transfer
- Water waves are another example of transverse waves

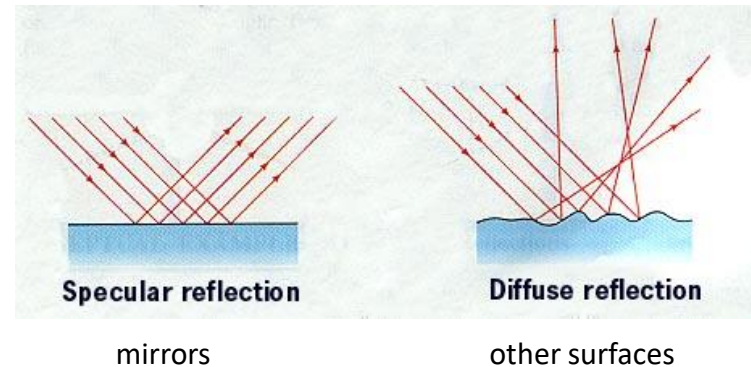
## How we see



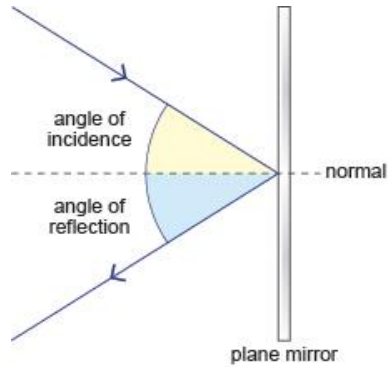
- Light reflects off objects, and into our eyes
- We see coloured objects as different colours because they absorb and reflect different wavelengths of light

Keyword	Meaning
Opaque	A substance that does not allow light through
Transparent	A substance that allows light through
Translucent	A substance that allows some light through
Reflect	Light bounces off
Absorb	Light is soaked up
Transmit	Light goes through
Filter	A substance that allows some wavelengths of light through, but not all
Refract	Light changes speed and direction when moving from one medium to another
Medium	a substance through which light travels
Dispersion	White light is split into the colours of the spectrum. A type of refraction that occurs in prisms.

## Types of reflection



## Reflection ray diagram



Arrows to show direction AWAY from light source

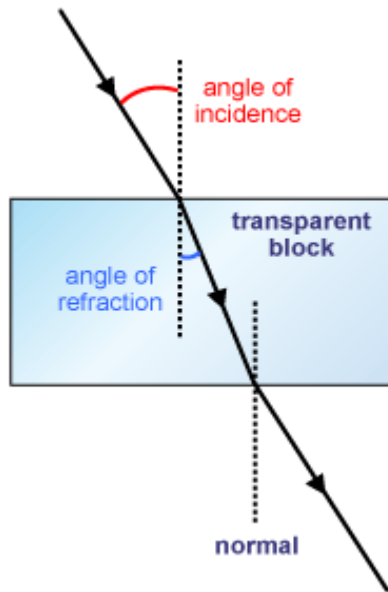
Normal is an imaginary line, drawn at  $90^\circ$  to the surface

**Angle of incidence = angle of reflection**

plane mirror

## Refraction

When light moves from one transparent medium to another it changes speed and direction

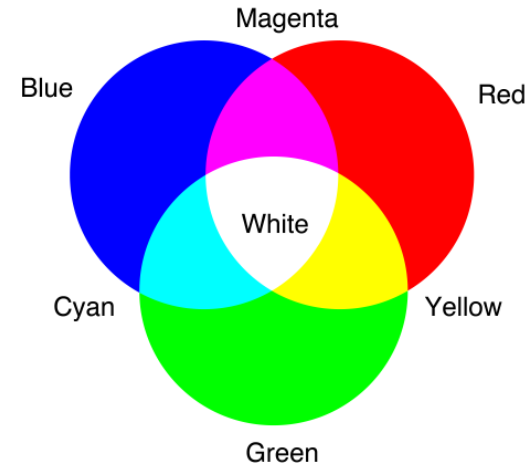


When entering a more dense material

- e.g. from air to glass, or water
- Light slows down
- So it bends towards the normal

When entering a less dense material

- e.g. from glass (or water) to air
- Light speeds up
- So it bends away from the normal



## Colour vision

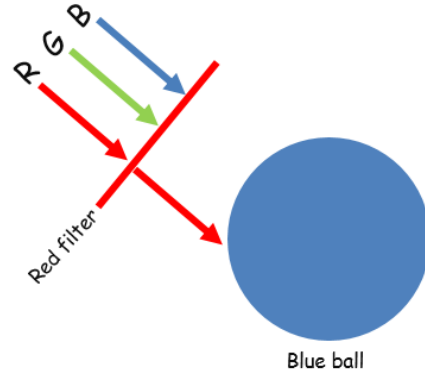
We see colours because objects reflect and absorb different colours of light

	Colour of object	Colours reflected into eye	Colours absorbed by object
	White	Red, blue, green	None
	Black	None	Red, blue, green
Primary colours	Red	Red	Green, blue
	Green	Green	Red, blue
	Blue	Blue	Red, green
Secondary colours	Cyan	Blue, green	Red
	Magenta	Red, blue	Green
	Yellow	Green, red	Blue

### Filters

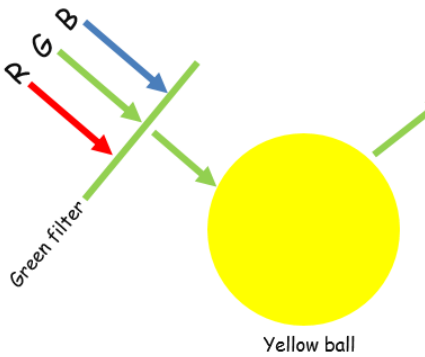
- Filters transmit some colours, but absorb others
- This alters the appearance of objects, because the light reaching them is altered

#### A red filter on a blue object



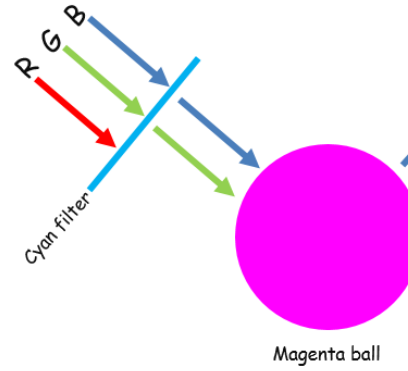
- Filter absorbs blue and green, red is transmitted
- Red light is absorbed by the ball, so the ball looks black

#### A green filter on a yellow object



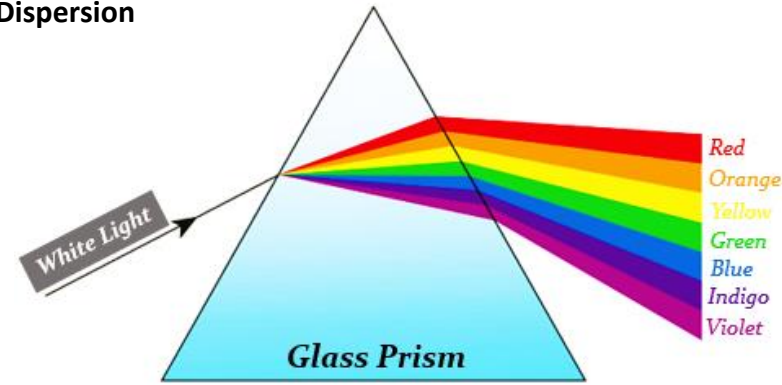
- Filter absorbs red and blue, green is transmitted
- Green light is reflected by the ball, so the ball looks green

#### A cyan filter on a magenta object



- Filter absorbs red, blue and green are transmitted
- Green light is absorbed by the ball, so the ball looks blue

### Dispersion



- Spectrum = red, orange, yellow, green, blue, indigo, violet
- Red light is refracted (bent) the least
- Violet light is refracted the most

# Las vacaciones



Look at this model text about holidays - do you think you could replicate it with your own information?

## Key verbs and vocab

Present		Past	
Voy	I go	Fui	I went
Vas	You go	Fuiste	You went
Va	He/she goes	Fue	He/she went
Vamos	We go	Fuimos	We went
Vais	You lot go	Fuisteis	You lot went
Van	They go	Fueron	They went

a... - to...

Escocia - Scotland	Gales - Wales
Italia - Italy	Grecia - Greece
Egipto - Egypt	Irlanda - Ireland
Alemania - Germany	Estados Unidos - USA

Con... - with

En... - by

Avión - plane	barco - boat
Autobús - bus	autocar - coach
Tren - train	coche - car

## Opinions

Fue... - it was

Guay - cool  
 Flipante - awesome  
 Genial - great  
 Regular - ok  
 Horroso - terrible  
 Un desastre - a disaster  
 Raro - strange/weird

¡Lo pasé bomba! - I had a fantastic time  
 ¡Lo pasé fenomenal! - I had a wonderful time  
 ¡Lo pasé guay! - I had a great/cool time  
 Lo pasé mal - I had a bad/terrible time

## Activities

El primer día - On the first day  
 El último día - on the last day  
 Primero - first  
 Luego - then  
 Después - after  
 Más tarde - later

Visité monumentos - I visited monuments  
 Compré una camiseta - I bought a t-shirt  
 Saqué fotos - I took photos  
 Monté en bicicleta - I rode a bike  
 Descansé en la playa - I relaxed on the beach  
 Mandé SMS - I sent a message  
 Bailé - I danced  
 Nadé en el mar - I swam in the sea  
 Tomé el sol - I sunbathed  
 Escribí SMS - I wrote messages  
 Comí una paella - I ate paella  
 Bebí una limonada - I drank a lemonade  
 Conocí a un chico guapo - I met a good-looking boy  
 Salí con mi hermana - I went out with my sister  
 Vi un castillo interesante - I saw an interesting castle

## Let's show off!

Acabo de ir a... - I have just been to...  
 Siempre he soñado con ir a... - I've always dreamed of going to...  
 Ojalá pudiera ir a... - I wish I could go to...  
 Cuesta un ojo de la cara - It costs an arm and a leg  
 El hotel era... - the hotel was...  
 El hotel tenía... - the hotel had...

Normalmente voy de vacaciones a <u>Grecia</u> .	Normally I go on holiday to <u>Greece</u> .
Voy con <u>mi familia</u> y vamos en <u>avión</u> .	I go with <u>my family</u> and we go by <u>plane</u> .
<u>ya que</u> es <u>rápido</u> pero también es <u>aburrido</u> .	because it's <u>fast</u> but also it's <u>boring</u> .
<u>Acabo de ir</u> a <u>Francia</u> y fue <u>guay</u> .	I've just been to <u>France</u> and it was <u>cool</u> .
Fui con <u>mi clase</u> y fuimos en <u>autocar</u> .	I went with <u>my class</u> and we went by <u>coach</u> .
El primer día <u>visité monumentos</u> y <u>saqué muchas fotos</u> .	On the first day <u>I visited monuments</u> and <u>I took lots of photos</u> .
Después compré <u>una camiseta roja</u> .	After, I bought a <u>red t-shirt</u> .
El último día <u>tomé el sol</u> en la playa	On the last day <u>I sunbathed</u> on the beach
y más tarde, <u>nadé en el mar</u> .	and later, <u>I swam in the sea</u> .
<u>¡Lo pasé bomba!</u>	I had a <u>fantastic</u> time!
Siempre he soñado con ir a <u>Estados Unidos</u>	I've always dreamed of going to <u>America</u>
porque me encanta <u>la comida</u> y <u>la cultura</u> .	because I love <u>the food</u> and <u>the culture</u>
Sin embargo, <u>cuesta un ojo de la cara</u> .	However, it costs an arm and a leg.

