

Fowey River Academy  
Year 9 Knowledge Organiser

Winter Quadmester



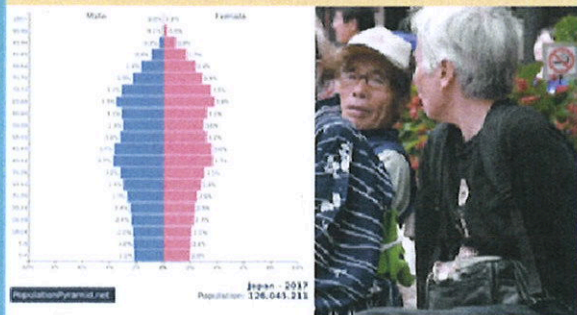
## Fowey River Academy Geography

### Key Vocabulary

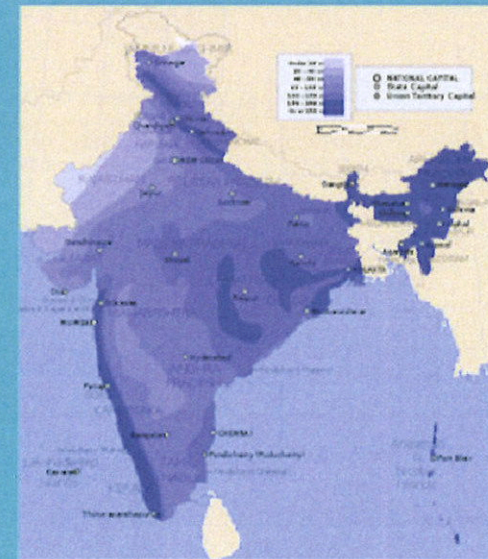
|               |   |
|---------------|---|
| Monsoon       | A seasonal prevailing wind in the region of South and SE Asia, blowing from the south-west between May and September and bringing rain. |
| Deforestation | The act of clearing a wide area of trees.   |

### Japan's Shrinking Population

- Decades of improving life expectancy and falling birth rates have produced a rapidly aging and shrinking population.
- Its population of 127 million is forecast to shrink by 1/3 in the next 50 years.
- In Tokyo there are twice as many job vacancies as applicants.
- The government has allowed an increase in the number of overseas workers to more than a million, double that in 2008.



## Knowledge Organiser – Semester 2- How is Asia being transformed? Part 1



India Average Annual Rainfall Map

### Monsoon Fact File

- Monsoon months: June to September.
- It brings ¾ of India's yearly rain, which is vital for life and food production.
- Over 50% of people are employed in agriculture.
- 1.4 billion rely directly on agriculture.
- India grows 100 million tons of rice and grain each year.
- Agriculture produces 15% of India's \$1.83 trillion GDP.

### The Mountain Biome

- The alpine biome usually lies between an altitude of about 10,000 feet (3,000 metres), and the place where the snowline of the mountain begins.
- These are cold environments, with lots of steep slopes and thin soils, making it a tough place for plants to live.
- There are only about 200 species of alpine plants.
- In the mountain biome, vegetation and animals have adapted to extreme conditions.

### Human and Physical causes of flooding in Southern Asia.

| Human   | Physical  |
|---|---|
| Trees are chopped down leading to a decrease in the levels of interception.   | Monsoon climate brings heavy rain.                              |
| 80% of Bangladesh lies on a huge floodplain, most only 1 metre above sea level. These areas are farmed intensely with poor people moving onto these vulnerable areas to grow rice crops for the family. | River silt up due to soil erosion raising the river bed height. |
|   | Meeting of 2 huge rivers.                                       |
|   | Cyclones frequently move up the Bay of Bengal.                  |



## Fowey River Academy Geography

### Key Vocabulary

|                       |   |
|-----------------------|---|
| Urbanisation          | The process of making an area more urban.   |
| Megacity              | A city with a population of over 10 million people.                               |
| Slum                  | A squalid and overcrowded urban street or district inhabited by very poor people. |
| Infant mortality rate | The number of deaths for children under 1, per 1000 live births.                  |

## Knowledge Organiser – Semester 2- How is Asia being transformed? Part 2

### How is urbanisation changing lives in Karnataka, India?

#### Fact File

- Number of people below the poverty line: 23.6% - ranking 20<sup>th</sup> out of 32 states in India.
- Infant mortality rate in 2011: 35 – ranking 19th out of 35 states in India.
- Percentage of children aged 3 and under, who are underweight or have stunted growth : 40%
- Number of cities with populations of 1 million or more: one – Bangalore.

#### Improving life in slums – a bottom up approach.

- Small scale projects working within the community.
- The Urban Ultra Poor Program (UUPP) set up by a Bangalore mother has helped over 1,500 families so far.

#### Integrated Housing and Slum Development Programme.

- The Government of India, New Delhi has approved 25 projects for Karnataka constructing 13,000 houses with a cost of ₹324 million.
- The scheme includes redeveloping slum housing to create cheap affordable housing.
- The basic objective of the scheme is to strive for slumless cities with healthy living and a good environment by providing adequate shelter and basic infrastructure facilities to the slum dwellers of the identified urban areas.

### International Trade Map



### What are the reasons for China's economic growth?

- Labour supply – China has a plentiful supply of people available for works.
- Large percentage of female workers – due to the one child policy, women are not involved in child-raising for as long as most other countries, adding to the already large labour supply.
- Low wages – increases the amount of profit made by industries.
- Natural resources – China has about 12% of the world's mineral resources.
- Location – China is located close to the strong economy and market of Japan and also newly emerging economies of other Asian countries, such as India and South Korea, as well as Russia and the Middle East.
- Poverty reduction – since 1990, 439 million people have been lifted out of poverty creating a growing market for consumer goods.
- Investment in Infrastructure – the government has built many new roads, rail systems and made rivers navigable.
- Energy supply – China is the largest producer and consumer of coal in the world, and is the world's largest user of coal-fired power stations.
- Political system and strong leadership – the government controls the economy rather than private businesses, they make all the decisions and can plan for the future.



# Year 9 Art

**FORM: Developing recording skills, painting and tonal drawing.**

## WHAT IS A STILL LIFE?

A still life is a drawing or painting of a collection of objects which are stationary.

## WHY IS COMPOSITION SO IMPORTANT?

How objects are arranged in real life or in a artwork has an impact on how the objects are interpreted.

## HOW CAN YOU ALTER A TONAL DRAWING TO CREATE AN ORIGINAL ARTWORK?

Focusing on the outlines and highlights in particular you will be able to select the most important elements in your designs. This will allow you to create a basic image to adorn with colour and details.

## HOW DOES GRIDDING IMPROVE ACCURACY?

It allows the artist maintain proportions and positioning of objects in an artwork whatever the size

## HOMEWORKS

**WEEK 1 - Explore illusion artwork**

**WEEK 2 - Development of illusions.**

**WEEK 3 - Colour theory development.**

**WEEK 4 - Take a series of architecture drawings, full screen or close up.**

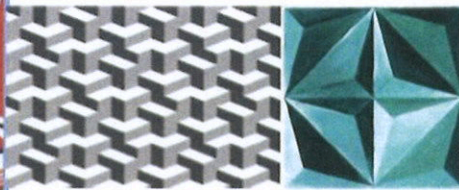
**WEEK 5- Photos of landscapes.**

**WEEK 6- Analysis of photographs**

**WEEK 7- Edit 4 photos, 2 architecture, 2 landscape.**

**WEEK 8- Analysis of composition**

## 3D OPTICAL ILLUSIONS



## Key words and definitions

**LEADING LINES** Lines within an artwork that direct the eye to the subject matter

**NEGATIVE SPACE** Areas of an artwork left purposefully blank to highlight the subject matter

**RULE OF THIRDS** The frame used to inform the composition of an artwork

**FRAMING** Objects, usually around the edges of an artwork that add context to the subject matter

**PERSPECTIVE** The technique used to create 3D objects on a 2D surface to give an accurate impression of form, depth and proportion.

## DOMINANCE

The relationship between two components of an artwork where one is stronger than the other

## MOVEMENT

The use of colour, line and subject matter to guide the viewer's eye around the artwork

## BALANCE/IMBALANCE

The relationship between objects in an artwork. The size of an object can determine its importance within an art work and balance provides context

## REPETITION

The use of a shape, object or motif more than once

## ISOLATION

Intentionally using an object/colour once in order for it to stand out

## DEPTH OF FIELD

The distance of focus within an artwork through the use of foreground, midground, background

## AO1

Develop ideas based on research

To annotate artist research, demonstrate that you understand what influenced the artist

To show the journey of your sketchbook is influenced by artists/designers

## AO2

To explore a variety of materials and processes.

To refine techniques used in your sketchbook to show that you are getting better at new processes!

To adapt and improve outcomes based on written evaluations.

## AO3

To record ideas, intentions and observations that link to your intention for your project.

To produce beautiful observational drawings consistently through your sketchbook

## AO4

To create an outcome that is personal, skillful and linked to the theme in a meaningful way

To show that you are able to create an outcome as a result of clear planning in your sketchbook.

## ABSTRACT

Less realistic and does not need to look like something we recognise

Focus on conveying emotion

Artists able to be more experimental with materials

## REPRESENTATIONAL

Focus on creating an image that is as accurate as possible

Focus on storytelling and creative a narrative across the image

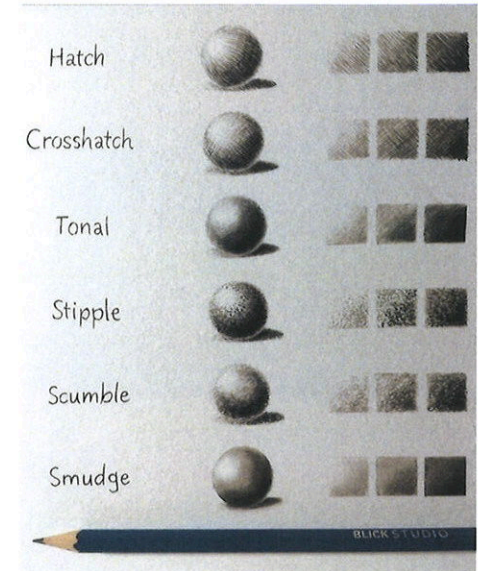
Artists are often keen to show off their technical ability



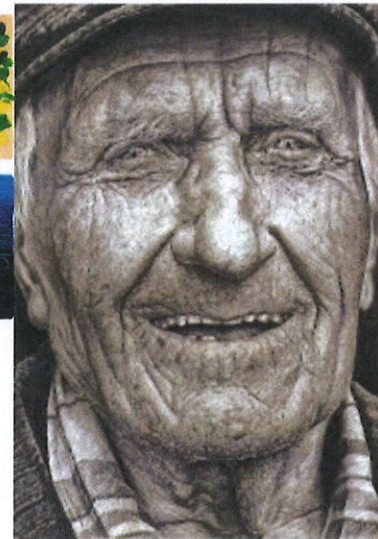
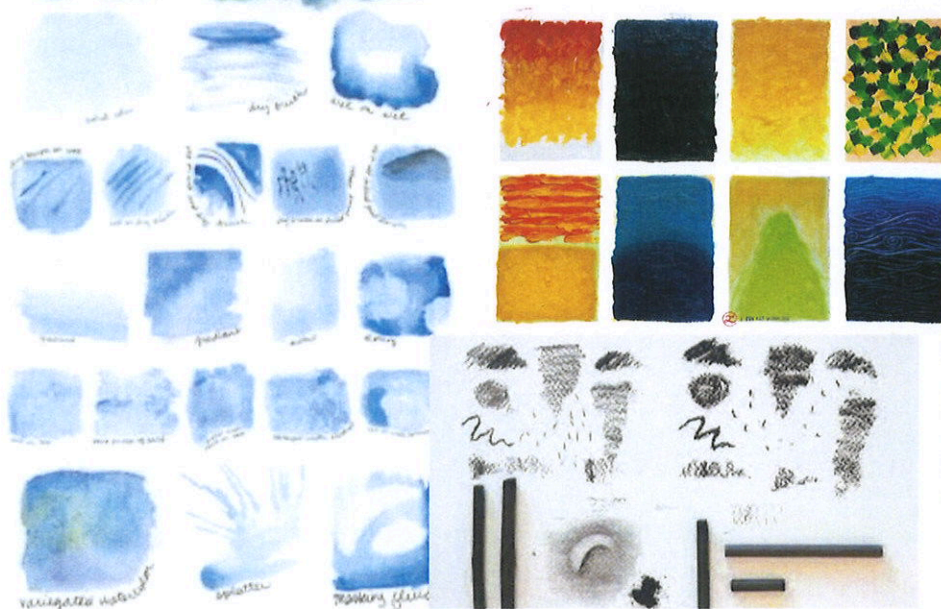
# GCSE ART DRAWING AND PAINTING

Drawing and painting underpins many artworks that we understand.

Creating textures with different surfaces and a variety of media will be able to show different shapes, patterns and realistic/non realistic effects. Using different tools, different amounts of water/paint will all create a variety of styles.



## Watercolor Techniques





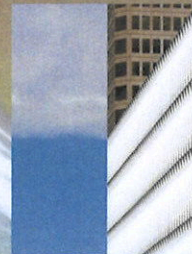
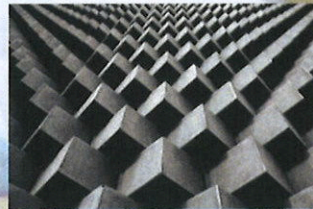
# YEAR 10 PHOTOGRAPHY

## Photo manipulation

Photograph genre:  
Abstract Architecture

Formal elements in Photography:

LINE            FORM/SHAPE  
                  PATTERN            TONE  
COLOUR            TEXTURE  
                  SPACE



Sew/ stitch



Paint



Draw



Weave



Rearrange



Burn

Photo manipulation can be achieved either physically by changing a printed photograph or digitally using a range of available softwares. Artists manipulate photos or transform them from a simple photo into a piece of original artwork.

### Manipulation techniques

**DRAWING**            **SEWING**  
**WEAVING**            **BURNING**  
**PAINTING**  
**REARRANGING**

#### **AO1**

Develop ideas based on research

To annotate artist research, demonstrate that you understand what influenced the artist

To show the journey of your sketchbook is influenced by artists/designer

#### **AO2**

To explore a variety of materials and processes.

To refine techniques used in your sketchbook to show that you are getting better at new processes!

To adapt and improve outcomes based on written evaluations.

#### **AO3**

To record ideas, intentions and observations that link to your intention for your project.

To produce beautiful observational drawings consistently through your sketchbook

#### **AO4**

To create an outcome that is personal, skillful and linked to the theme in a meaningful way

To show that you are able to create an outcome as a result of clear planning in your sketchbook.



# YEAR 11 PHOTOGRAPHY



## Portfolio- Reflections

Formal elements in Photography:

LINE            FORM/SHAPE  
                  PATTERN            TONE  
COLOUR        TEXTURE  
                  SPACE

### How do I...Annotate my contact sheet?



#### Your Opinions

Circle or highlight your favourite photographs on your contact sheet  
Cross or highlight your least favourite photographs  
On your circled and crossed photos explain why you have identified these as the best / worst

#### Crop Lines

Draw on to your contact sheet to show where you would like to crop your subject matter/composition

#### Techniques

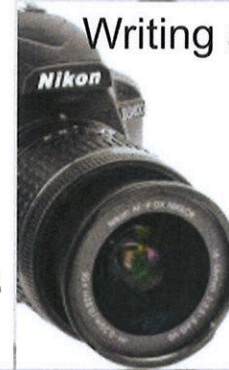
Note down any composition rules, effects and lighting methods used in your images

#### Camera Settings

Using the right click and get info method find out the shutter speed, F stop, ISO, white balance... Note these next to your thumbnails and say why these settings were used and evaluate the success



### Writing about your own photos:



- Say what you have taken a photo of.
- Talk about where you took the photo.
- Discuss what composition rules you used.
- Discuss the lighting in the photograph.
- Explain how you have changed/ manipulated the photo.
- Find a photo by another photographer and explain how they are similar/ different.
- Say what you find most successful about your photo.
- Explain what you would do next to improve that photo.

### Experimentation

#### techniques

- Weaving
- Re arranging
- Burning
- Scratching/ ripping
- Sewing into
- Drawing over
- Painting over
- Digital layering
- Digital editing (Hue/ Contrast/ Exposure)

#### A01

Develop ideas based on research

To annotate artist research, demonstrate that you understand what influenced the artist

To show the journey of your sketchbook is influenced by artists/designer

#### A02

To explore a variety of materials and processes.

To refine techniques used in your sketchbook to show that you are getting better at new processes!

To adapt and improve outcomes based on written evaluations.

#### A03

To record ideas, intentions and observations that link to your intention for your project.

To produce beautiful observational drawings consistently through your sketchbook

#### A04

To create an outcome that is personal, skillful and linked to the theme in a meaningful way

To show that you are able to create an outcome as a result of clear planning in your sketchbook.



# YEAR 11 ART

## PORTFOLIO - NATURE/DISTORTED PORTRAITS/ CLOSE UP



**That you only have to do one page of experimenting**

You need to include at least 3 pages of experimentation

**That annotation does not have to be in full sentences**

All written work must be high quality analysis and use the framework sheets to organise your annotation

**That you only have to come up with one idea for an outcome**

You must plan, test, review and adapt your outcome idea. It should go through three phases of improvement.

**Refine means trying lots of different things once**

You must show that you have developed a small selection of skills confidently to create work that is more complex

**That you can copy an existing artwork for your final outcome.**

Your artwork must be based on photographs that you have taken and inspired by a combination of both artist styles.

### EXTENSION TASKS

**AO2** Scan your work. Crop it and create a repeated pattern on Powerpoint

**AO2** Make a screen print using your artist as inspiration.

**AO2/AO3** Select an artwork from your book and recreate using a different material

**AO1/AO4** Annotate your work focusing on how your experiments have helped you form an idea

**AO1/AO2** Link your project to an historical event and integrate text into your artwork.

**AO2** Combine two of your artworks on Photoshop through layering and adjusting transparency.

**AO2/AO3** Zoom in on one of your drawings and create an abstract artwork.

**AO3/AO1** Take more photos to work from. Print out and annotate.

**AO2** Use a photo to make a monoprint. Work into it with paint/colour pencil/watercolour/fabric/collage.

**AO3** Produce a beautiful tonal drawing based on a photograph.

### How to successfully analyse an artwork

Use **key terminology** to describe the composition  
Identify all **elements of art** in the artwork and explain its impact on the artwork.  
What materials did the artist use and how did they use it  
Who was the artist inspired by?  
What do you like about the artwork?  
What made you choose this artist and how have they influenced you?

### AO1

Develop ideas based on research

To annotate artist research, demonstrate that you understand what influenced the artist

To show the journey of your sketchbook is influenced by artists/designer

### AO2

To explore a variety of materials and processes.

To refine techniques used in your sketchbook to show that you are getting better at new processes!

To adapt and improve outcomes based on written evaluations.

### AO3

To record ideas, intentions and observations that link to your intention for your project.

To produce beautiful observational drawings consistently through your sketchbook

### AO4

To create an outcome that is personal, skillful and linked to the theme in a meaningful way

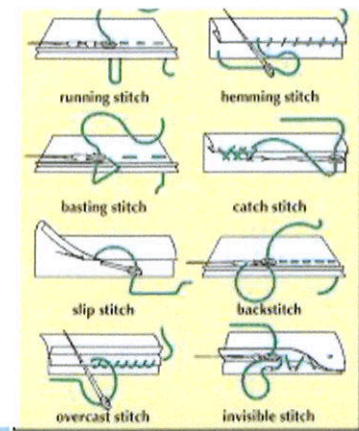
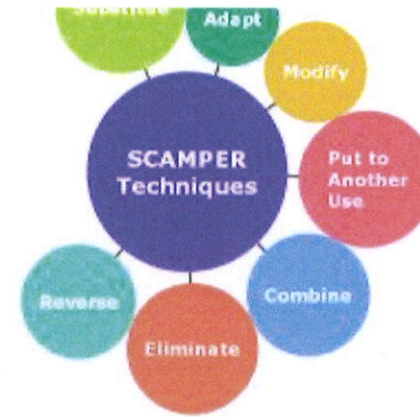
To show that you are able to create an outcome as a result of clear planning in your sketchbook.



# YEAR 11 TEXTILES

## PORTFOLIO - HUMAN/ BOTANICAL/ ARCHITECTURE

Every page needs to be full, interested and annotated. Explore a wide variety of media in your research and idea development.



### TEXTILES TECHNIQUES

Fabric Painting  
Batik  
Silk Painting  
Tie Dye  
Embroidery  
Applique  
Reverse Applique  
Felt Making  
Quilting  
Weaving  
Printing  
Fabric Manipulation

### Annotations:

What have you done?  
Why have you done it?  
What do you think of it?  
Where was your inspiration from?  
How did you make it?  
Which artists inspired you?  
Where would you make changes?  
What might it be like in different media?

### AO1

Develop ideas based on research

To annotate artist research, demonstrate that you understand what influenced the artist.

To show the journey of your sketchbook is influenced by artists/designer.

### AO2

To explore a variety of materials and processes.

To refine techniques used in your sketchbook to show that you are getting better at new processes!

To adapt and improve outcomes based on written evaluations.

### AO3

To record ideas, intentions and observations that link to your intention for your project.

To produce beautiful observational drawings consistently through your sketchbook

### AO4

To create an outcome that is personal, skillful and linked to the theme in a meaningful way

To show that you are able to create an outcome as a result of clear planning in your sketchbook.



# Memory Mat

## Year 7 Photography-Selfie

**Selfie-** a photograph that one has taken of **oneself**, typically one taken with a smartphone or webcam and shared via social media.

### Photography formal elements:

- Line
- Shape and Form
- Tone



### What is framing?

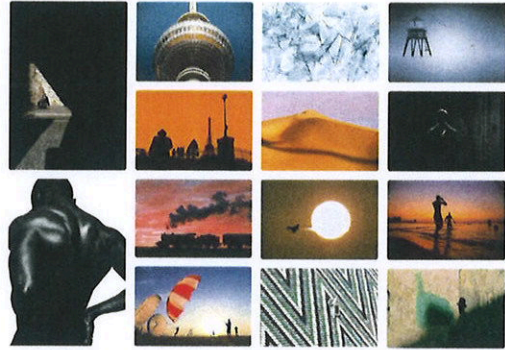
Framing in photography refers to the process of composing a picture. It involves choosing what you'll include in the frame and what you'll leave out. The goal is to create a pleasing composition that directs the viewer's attention.

### Key words and terminology:

- Frame-** the technique of drawing focus to the subject in the photo by blocking other parts of the image with something in the scene
- Contact sheet-** A selection of at least 30 photos taken as part of a photoshoot
- Analysis-** writing about the successes of a photoshoot
- Tone-** the levels of brightness in the photograph, from solid black to pure white

**AO1** EXPLORE  
THEME IMAGES  
WRITTEN BY FINAL YEAR  
LINK ARTISTS WORK TO  
IDEAS AND ARTWORK RESEARCH

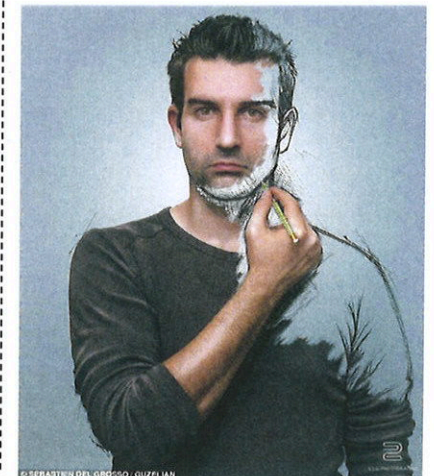
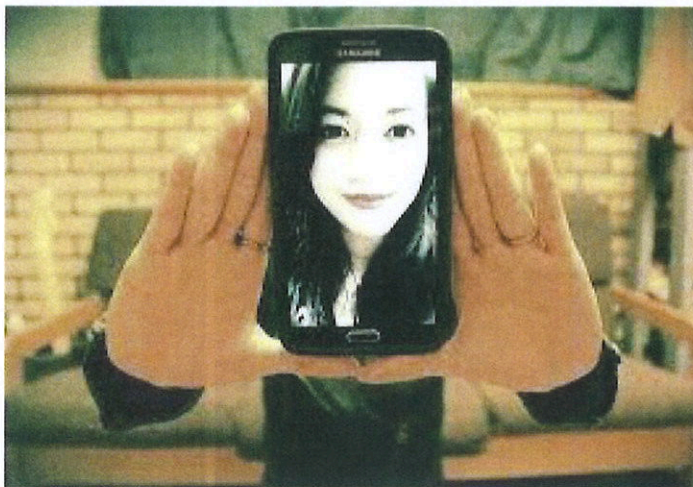
**AO4** FINAL  
MEANINGFUL PIECE OF WORK  
INFORMED SHOW UNDERSTANDING  
RESPONSE LINKS  
LINK BETWEEN VISUALS AND ARTISTS  
RELEVANT



### Sebastien Del Grosso

Sebastien Del Grosso is an illustrator and digital artist who lives and works in Paris, France.

Sebastien explains the work by saying, "Since my childhood, drawing has always been a passion, but when I discovered photography, I thought that the combination of these two passions would allow me to give free rein to my imagination. In this series "The sketch of a life", I wanted to illustrate my life, like my sketches gave birth to each of his actions.

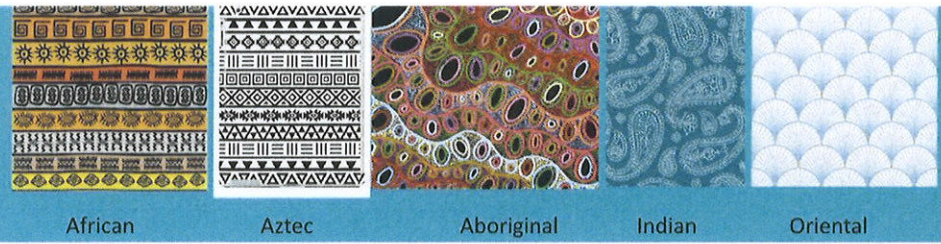


© SEBASTIEN DEL GROSSO / GUZELIAN



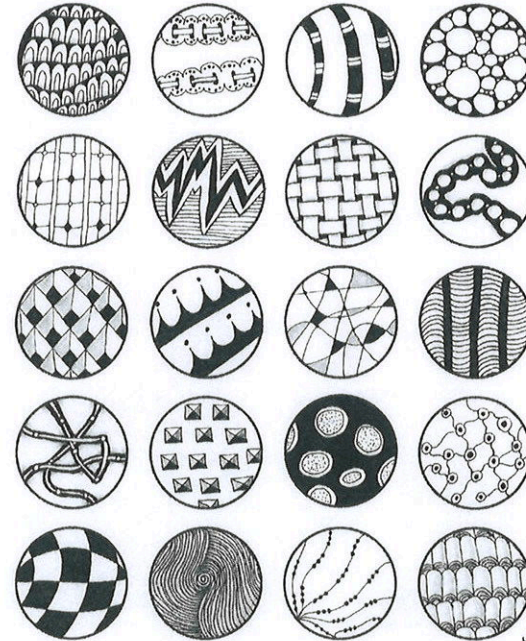
# Memory Mat

## Year 8 Photography- Pattern and Portrait



What is a cultural pattern?

Different cultures from all over the world utilize patterns to decorate important objects like masks, textiles, sculptures, and even themselves through body art.



**Portrait-** a painting, drawing, photograph, or **engraving** of a person, especially one **depicting** only the face or head and shoulders.

### Photography formal elements:

- Line
- Shape and Form
- Texture



### Key words and terminology:

**Pattern:** a repeated decorative design.

**Contact sheet-** A selection of at least 30 photos taken as part of a photoshoot

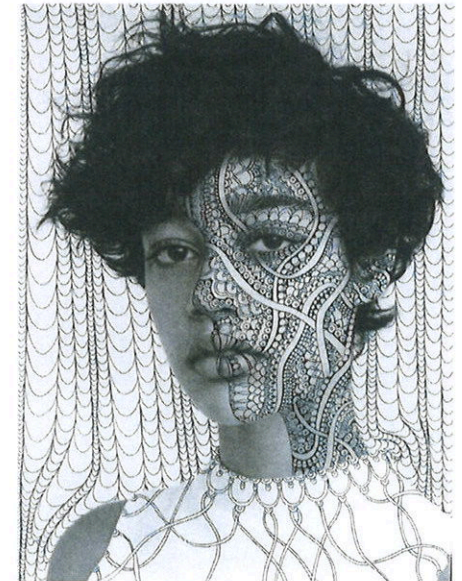
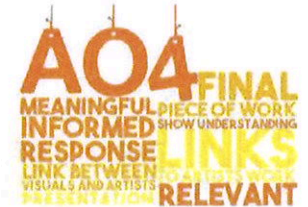
**Culture:** the ideas, customs, and social behaviour of a particular people or society.

**Texture:** the feel, appearance, or consistency of a surface or substance.

**Exposure:** the amount of light that reaches your camera's sensor, creating visual data over a period of time

## Alana Dee Haynes

Alana Dee Haynes is an American artist who lives and works in New York City. In a meditative process of repetitive mark-making, Haynes overlays complex patterns and latticework over the forms of found objects and images.





**G The imperfect tense** > Page 216

The imperfect tense is used to describe what things **were like** in the past or what **used to** happen.

Avant, **je lisais** des livres, maintenant je lis sur mon écran.

Dans le passé, **nous lisions** les journaux, maintenant nous lisons la presse sur ordi.

**G Direct object pronouns** > Page 230

A direct object pronoun replaces a noun that is the object in a sentence. It comes directly before the verb.

|             |                                     |                       |
|-------------|-------------------------------------|-----------------------|
| masc ('it') | Je regarde <b>un documentaire</b> . | Je <b>le</b> regarde. |
| fem ('it')  | Je regarde <b>une série</b> .       | Je <b>la</b> regarde. |
| pl ('them') | J'aime <b>les documentaires</b> .   | Je <b>les</b> aime.   |

Mon émission préférée est **un jeu télévisé**.

Je **le** regarde tous les samedis.

My favourite TV programme is a game show.

I watch **it** every Saturday.

J'**adore** **cette émission**.

Je **la** regarde toutes les semaines.

I love this programme.

I watch **it** every week.

J'ai horreur **des émissions de télé-réalité**.

Je **les** trouve totalement nulles.

I hate reality TV shows.

I find **them** totally rubbish.

**G The relative pronoun que** > Page 232

**Que** means 'who', 'which' or 'that', when 'who', 'which' or 'that' is the object of a verb. It is very useful for creating longer, more complex sentences:

J'y mets toutes les photos **que** j'aime et **que** je veux partager avec les autres.

I put all the photos **which** I like and **which** I want to share with other people there.

**G depuis + the present tense** > Page 234

Use **depuis + the present tense** to say how long something has been happening.

Je joue au tennis **depuis** cinq ans.

I have been playing tennis for five years.

**G Comparative adjectives** > Page 226

You use comparative adjectives to compare things:

- plus + adjective + que** more ... than
- plus simple que* more simple than
- moins + adjective + que** less ... than
- moins arrogant que* less arrogant than

**G The verb faire**

**faire** (to do/make)

je fais

tu fais

il/elle/on fait

nous faisons

vous faites

ils/elles font

(perfect tense) j'ai fait

**Year 9 French- Winter**  
**Qu'est-ce que tu fais pendant ton temps libres?**

**G The superlative** > Page 226

The superlative is formed as follows:

- the most ... **le/la/les plus** + adjective  
l'acteur **le plus talentueux** the most talented actor  
l'actrice **la plus élégante** the most elegant actress  
les réalisateurs **les plus connus** the best known directors
- the best ... **le meilleur/la meilleure/les meilleurs/les meilleures**  
**les meilleures photos** the best photos
- the least ... **le/la/les moins** + adjective  
la série **la moins intéressante** the least interesting series

Note that the superlative comes before or after the noun, depending on where the adjective would normally come:

- le festival **le plus célèbre** the most famous festival
- les **plus grandes** stars the biggest stars

**G The position of adjectives** > Page 224

Most adjectives come after the noun:

C'est un sport **rapide**.

However, some adjectives come in front of the noun, e.g. **beau** and **bon**:

C'est un **beau** sport.

Cela demande ... une **bonne** coordination.  
de **bons** réflexes.

Refer to page 224 for a list of other adjectives that come before the noun.



V O C A B U L A I R E

|  |   |   |  |
|--|---|---|--|
| <b>Le sport</b><br>Je fais ...<br>du canoë-kayak<br>du footing<br>du hockey sur glace<br>du patinage<br>du roller<br>du vélo/cyclisme<br>de la boxe<br>de la danse<br>de la musculation<br>de la natation  | <b>Sport</b><br>I do/go ...<br>canoeing/kayaking<br>jogging<br>ice hockey<br>skating<br>roller skating<br>cycling<br>boxing<br>dancing<br>weight-lifting<br>swimming  | de la planche à voile<br>de la voile<br>de l'escalade<br>de l'équitation<br>des randonnées<br>Je trouve ça ...<br>bien/cool<br>génial/super<br>passionnant<br>barbant/ennuyeux<br>nul/stupide   | wind-surfing<br>sailing<br>climbing<br>horse-riding<br>for walks<br>I think it's ...<br>good/cool<br>great/super<br>exciting<br>boring<br>rubbish/stupid   |
| <b>La musique</b><br>Je joue ...<br>du piano<br>du saxophone<br>du violon<br>de la batterie<br>de la clarinette<br>de la flûte<br>de la guitare<br>de la trompette<br>de l'accordéon   | <b>Music</b><br>I play ...<br>the piano<br>the saxophone<br>the violin<br>drums<br>the clarinet<br>the flute<br>the guitar<br>the trumpet<br>the accordion  | Mon chanteur/Ma chanteuse<br>préférée(e), c'est ...<br>car j'aime ses paroles/ses mélodies<br>J'aime aussi la musique de ...<br>Ça me donne envie de ...<br>Ça me rend ...<br>J'ai téléchargé/acheté ...<br>Je n'aime pas du tout la musique de ...<br>Je déteste ...                 | My favourite singer is ...<br>because I like his/her lyrics/tunes<br>I also like ...'s music.<br>It makes me want to ...<br>It makes me ...<br>I downloaded/bought ...<br>I don't like ...'s music at all.<br>I hate ...                                   |
| <b>La technologie</b><br>Je fais ...<br>beaucoup de choses<br>des quiz/des recherches pour<br>mes devoirs<br>Je fais des achats.   | <b>Technology</b><br>I do ...<br>lots of things<br>quizzes/research for my homework<br>I buy things/make purchases.   | Je vais sur mes sites préférés/<br>des blogs/des forums.<br>J'envoie des e-mails/mails.<br>Je joue à des jeux en ligne.   | I go on my favourite sites/blogs/forums.<br>I send emails.<br>I play games online.   |
| <b>Films et télé</b><br>J'aime/J'adore les ...<br>Je (ne) suis (pas) fan de ...<br>Je n'aime pas ...<br>J'ai une passion pour les ...<br>J'ai horreur des ...<br>films de gangsters/d'action<br>films d'aventure/d'horreur<br>films d'arts martiaux<br>films de science-fiction  | <b>Films and TV</b><br>I like/love ...<br>I am (not) a fan of ...<br>I don't like ...<br>I am passionate about ...<br>I hate/can't stand ...<br>gangster/action films<br>adventure/horror films<br>martial arts films<br>science-fiction films  | Je préfère ...<br>les documentaires<br>les jeux télévisés<br>les magazines<br>les séries<br>les actualités<br>les émissions de musique/de sport/<br>de jeunesse/de télé-réalité<br>Mon émission préférée, c'est ...<br>Je trouve ça ...<br>Je pense que c'est ...                     | I prefer ...<br>documentaries<br>game shows<br>magazine programmes<br>series<br>current affairs programmes<br>music/sports/youth/reality TV<br>programmes<br>My favourite programme is ...<br>I find it ...<br>I think that it's ...                       |
| <b>Parler de sport</b><br>Je fais de l'escrime/du footing depuis<br>(quatre ans).<br>Je pratique le trampoline depuis<br>(trois mois).<br>On joue au basket ensemble depuis<br>(trois ans).<br>J'aime beaucoup ça car c'est ...<br>élégant/facile<br>ludique/sympa<br>rapide/beau<br>C'est un sport qui est bon pour ...<br>le corps/le cœur<br>le mental/la concentration | <b>Talking about sport</b><br>I've been doing fencing/jogging for<br>(four years).<br>I've been trampolining for<br>(three months).<br>We've been playing basketball together<br>for (three years).<br>I like it a lot because it's ...<br>elegant/easy<br>fun/nice<br>fast/pleasant<br>It's a sport that is good for ...<br>the body/the heart<br>the mind/concentration | ... et qui demande ...<br>une excellente forme physique<br>une bonne coordination<br>de l'endurance<br>de bons réflexes<br>Ça m'aide à décompresser.<br>Ça me fait du bien.<br>Je préfère les sports individuels.<br>Je respire.<br>Je me fixe des objectifs.<br>J'oublie mes soucis. | ... and which requires ...<br>excellent physical condition<br>good coordination<br>endurance<br>good reflexes<br>It helps me to relax.<br>It does me good.<br>I prefer individual sports.<br>I breathe.<br>I set goals for myself.<br>I forget my worries. |

|   |  |   |  |
|---|--|---|--|
| <b>Ma vie d'internaute</b><br>Je suis passionné(e) de ...<br>photographie/cinéma/musique<br>Il y a (deux mois), j'ai créé ...<br>une page Facebook<br>une chaîne YouTube<br>une station de radio<br>un blog<br>Ça (ne) marche (pas) très bien.<br>J'ai beaucoup d'abonnés et de mentions<br>«J'aime».   | <b>My life online</b><br>I am passionate about/a huge fan of ...<br>photography/cinema/music<br>(Two months) ago, I created ...<br>a Facebook page<br>a YouTube channel<br>a radio station<br>a blog<br>It's (not) working very well.<br>I have lots of subscribers and likes.   | Je vais travailler avec mon ami/ma sœur/<br>mon prof ...<br>car il/elle est plus/moins ... que moi<br>arrogant(e)/créatif(-ive)<br>modeste/patient(e)<br>optimiste/organisé(e)<br>sérieux/-euse/technophobe<br>Nous allons créer ...  | I'm going to work with my friend/<br>sister/teacher ...<br>because he/she is more/less ...<br>than me<br>arrogant/creative<br>modest/patient<br>optimistic/organised<br>serious/technophobic<br>We're going to create ...  |
| <b>La lecture</b><br>Quand j'avais X ans, je lisais ...<br>J'aimais ...<br>Avant, avec mes enfants, on lisait ...<br>des histoires/des romans<br>des livres illustrés/classiques<br>des livres pour enfants/des journaux<br>Maintenant, je lis ...<br>sur ma tablette/mon ordi<br>sur Internet  | <b>Reading</b><br>When I was X years old, I read ...<br>I liked ...<br>In the past, I read ... with my children.<br>stories/novels<br>illustrated books/classics<br>children's books/newspapers<br>Now I read ...<br>on my tablet/my computer<br>on the internet   | Maintenant/Aujourd'hui, les jeunes ...<br>lisent des blogs/des textos/des tweets<br>passent tout leur temps sur leur<br>portable<br>Je trouve ça génial.<br>Je trouve que c'est bien/mieux/un peu<br>dommage.<br>À mon avis, Internet a tué les joies de<br>la lecture.   | Now/Today, young people ...<br>read blogs/texts/tweets<br>spend all their time on their mobile<br>I find that great.<br>I find that it's good/better/a bit of<br>a shame.<br>In my opinion, the internet has killed<br>the joy of reading.   |
| <b>Mes émissions préférées</b><br>Mon émission de télé préférée, c'est ...<br>C'est (un docu-réalité) qui parle de ...<br>Je le/la regarde ...<br>toutes les semaines<br>tous les jours/mois<br>Je le/la trouve formidable/super/génial(e).<br>Je ne le rate/manque jamais.<br>Je ne le/la regarde jamais.<br>Je le/la trouve débile/vulgaire.<br>J'adore les animateurs/animatrices. | <b>My favourite TV programmes</b><br>My favourite TV programme is ...<br>It's (a reality documentary) about ...<br>I watch it ...<br>every week<br>every day/month<br>I find it amazing/antastic/great.<br>I never miss it.<br>I never watch it.<br>I find it idiotic/crude.<br>I love the presenters.                               | Les acteurs sont excellents/ne sont<br>pas crédibles.<br>Le scénario n'a aucun rapport avec<br>la réalité.<br>Je le/la regarde en version originale.<br>Avant, je regardais/nous regardions ...<br>Maintenant, j'ai tendance à regarder ...<br>en direct sur la TNT<br>en replay/streaming  | The actors are excellent/not credible.<br>The script has no connection to reality.<br>I watch it in the original language.<br>Before, I/we used to watch ...<br>Now, I tend to watch ...<br>live on terrestrial TV<br>on catch-up/streamed   |
| <b>Le cinéma</b><br>Je suis passionné(e) de cinéma.<br>J'adore ...<br>J'admire ...<br>Je suis fan de ... depuis ...<br>Il est le plus ...<br>Elle est la plus ...<br>beau/belle<br>intelligent(e)<br>talentueux/-euse<br>élégant(e)<br>doué(e)<br>célèbre<br>chic<br>Chez lui/elle, il y a très peu ...<br>de prétention  | <b>Cinema</b><br>I'm passionate/mad about cinema.<br>I love ...<br>I admire ...<br>I've been a fan of ... since ...<br>He is the most ...<br>She is the most ...<br>good-looking, beautiful<br>intelligent<br>talented<br>elegant<br>gifted, talented<br>famous<br>chic<br>With him/her, there is very little ...<br>pretentiousness | de vanité<br>d'arrogance<br>Il/Elle est extrêmement modeste/<br>sincère/humble.<br>J'ai vu le film ... il y a un moment et<br>depuis, je suis fan.<br>Apparemment, quand il/elle était<br>jeune ...<br>X compte parmi les acteurs les plus<br>connus et les plus appréciés au<br>monde.<br>J'adore ses films et je les recommande.<br>Je vais voir son prochain film très<br>bientôt. | vanity<br>arrogance<br>He/she is extremely modest/sincere/<br>humble.<br>I saw the film ... some time ago and<br>since then, I've been a fan.<br>Apparently, when he/she was young ...<br>X is one of the best-known and<br>most popular actors in the world.<br>I love his/her films and I recommend<br>them.<br>I'm going to see his/her next film<br>very soon. |
| <b>Les mots essentiels</b><br>normalement<br>quelquefois<br>souvent<br>tous les jours<br>hier soir<br>récemment<br>depuis un moment<br>lorsque<br>d'abord<br>ensuite<br>à mon avis<br>personnellement<br>car<br>cependant   | <b>High-frequency words</b><br>normally, usually<br>sometimes<br>often<br>every day<br>yesterday evening<br>recently<br>for a while<br>when<br>first(by)<br>next<br>in my opinion<br>personally<br>because, as<br>however  | apparemment<br>en général<br>de toute manière<br>surtout<br>en ce qui concerne<br>autant de<br>de plus en plus<br>en dehors de<br>ensemble<br>notamment<br>partout<br>pas du tout<br>pour la plupart<br>tandis que  | apparently<br>in general, generally<br>in any case<br>especially<br>with regard to<br>so many<br>more and more<br>outside (of)<br>together<br>notably<br>everywhere<br>not at all<br>mostly<br>while, whereas  |



### Freizeitaktivitäten

die Freizeit  
Briefmarken sammeln  
Plüschtiere sammeln  
Sport machen  
Sport treiben  
Fußball spielen  
Hockey spielen  
Basketball spielen  
Schach spielen  
Karten spielen  
am Computer spielen  
Computerspiele spielen  
im Internet surfen  
im Internet chatten  
mit Freunden reden  
chillen  
Freunde treffen  
Zeit mit dem besten Freund /  
der besten Freundin verbringen

### Leisure activities

leisure time, free time  
to collect stamps  
to collect soft toys  
to do sport  
to do sport  
to play football  
to play hockey  
to play basketball  
to play chess  
to play cards  
to play on the computer  
to play computer games  
to surf on the internet  
to chat on the internet  
to chat with friends  
to chill  
to meet friends  
to spend time with your best friend

ins Kino gehen  
in die Stadt gehen  
abends fernsehen  
am Wochenende Videos gucken  
Filme / die Nachrichten sehen  
Musik machen  
Radio hören  
Bücher lesen  
faulenzen  
nichts tun  
Ich bin ...  
(nicht) sehr  
ziemlich  
ein bisschen  
(gar) nicht  
sportlich  
musikalisch  
faul  
abenteuerlustig

to go to the cinema  
to go into town  
to watch TV in the evening  
to watch videos at the weekend  
to watch films / the news  
to make music  
to listen to the radio  
to read books  
to chill, laze about  
to do nothing  
I am ...  
(not) very  
quite  
a bit  
not (at all)  
sporty  
musical  
lazy  
adventurous

### Instrumente

die Blockflöte  
die Flöte  
die Geige  
die (elektrische) Gitarre  
die Klarinette  
die Trompete

### Definite article (the)

Nominative: **Der** Roman / **Die** Komödie / **Das** Buch ist gut. / **Die** Comics sind gut.  
Accusative: Ich lese **den** Roman / **die** Komödie / **das** Buch / **die** Comics.

### Indefinite article (a, an)

Nominative: **Ein** Mann / **Eine** Frau / **Ein** Kind geht ins Kino.  
Accusative: Ich sehe **einen** Mann / **eine** Frau / **ein** Kind.

Here is a summary of the changes in the articles:

|                              | masc. | fem. | neut. | pl. |                                  | masc. | fem. | neut. | pl. |
|------------------------------|-------|------|-------|-----|----------------------------------|-------|------|-------|-----|
| <b>definite article: the</b> |       |      |       |     | <b>indefinite article: a, an</b> |       |      |       |     |
| <b>nom.</b>                  | der   | die  | das   | die | <b>nom.</b>                      | ein   | eine | ein   | -   |
| <b>acc.</b>                  | den   | die  | das   | die | <b>acc.</b>                      | einen | eine | ein   | -   |

The negative article (*kein* – no, not a) and possessive adjectives (*mein, dein, sein, ihr* – my, your, his, her) follow the same pattern as *ein*.

The demonstrative article (*dieser, diese, dieses* – this) follows the same pattern as *der, die, das*.

### Instruments

recorder  
flute  
violin  
(electric) guitar  
clarinet  
trumpet

das Keyboard  
das Klavier  
das Saxofon  
das Schlagzeug  
das Instrument  
Ich spiele kein Instrument.

keyboard  
piano  
saxophone  
drums  
instrument  
I don't play an instrument.

### Music

I'm interested in lots of types of music.

music collection

I (don't) like listening to ...

I prefer to listen to ...

I like listening to ... best of all.

classical music

opera

pop music

reggae

R&B

rap

heavy metal

country and western

jazz

live music

Ich höre Musik auf meinem ...  
Handy / Smartphone  
Laptop / Tablet  
Musik herunterladen / downloaden  
Das ist praktisch.  
Ich spiele seit (einem Jahr) Gitarre.  
Ich downloade alles auf mein Tablet.  
Das spart so viel Platz.  
Der Ton (auf einem Tablet) ist  
nicht gut.  
Die Qualität ist fantastisch.  
Die Eintrittskarten sind zu teuer.  
Ich gebe kein Geld für (Musik) aus.  
Das ist ein tolles Gefühl.

I listen to music on my ...  
mobile phone / smartphone  
laptop / tablet  
to download music  
That's practical.  
I have been playing guitar for (a year).  
I download everything onto my tablet.  
That saves so much space.  
The sound (on a tablet) is not good.  
The quality is fantastic.  
The entry tickets are too expensive.  
I don't spend any money on (music).  
That's a great feeling.

☹ Ich höre **nicht** gern Rapmusik.  
😊 Ich höre **gern** klassische Musik.  
😊😊 Ich höre **lieber** Reggae.  
😊😊😊 Ich höre **am liebsten** House. /  
**Am liebsten** höre ich House.

## Year 9 German - Winter Zeit für Freizeit!

### Essential Question: Was machst du in deiner Freizeit?

### Bücher

gedruckt  
das Buch(-er)  
das gedruckte Buch  
die Biografie(n)  
der Comic(s)  
der Fantasyroman(e)  
die Horrorgeschichte(n)  
die Komödie(n)  
der Krimi(s)  
die Liebesgeschichte(n)  
das Science-Fiction-Buch(-Bücher)  
der Thriller(-)  
die Zeitung(en)

### Books

printed  
book  
printed book  
biography  
comic book  
fantasy novel  
horror story  
comedy  
detective / crime story  
love story  
sci-fi-book  
thriller  
newspaper

die Zeitschrift(en), das Magazin(e)  
die Illustrierte(n)  
das Blog(s)  
das E-Book(s)  
das Taschenbuch(-er)  
Ich lese (oft / nie) Taschenbücher ...  
auf meinem Tablet / E-Reader  
auf einem elektronischen Gerät  
im Bett  
in meinem Zimmer  
im Bus  
der Akku  
der Bildschirm

magazine  
(glossy) magazine  
blog  
e-book  
paperback book  
I (often / never) read paperbacks ...  
on my tablet / e-reader  
on an electronic device  
in bed  
in my room  
on the bus  
rechargeable battery  
screen

### Word order

Page 230

- Adverbs (expressions of frequency and place) sometimes sound better at the beginning of a sentence, but remember to put the **verb** second, then the **subject**:  
*Einmal pro Woche lese ich die Zeitung.*
- If you have two or more adverbs together, they follow the order of **Time – Manner – Place** (when – how – where):  
*Ich lese jeden Tag schnell ein Buch.* (when, how)  
I quickly read a book every day.  
*Ich lese heute im Auto.* (when, where)  
I read in the car today.



**Film und Fernsehen**

der Film(e)  
 der Actionfilm(e)  
 der Fantasyfilm(e)  
 der Horrorfilm(e)  
 die Komödie(n)  
 der Krimi(s)  
 der Liebesfilm(e)  
 der Science-Fiction-Film(e)  
 der Thriller(-)  
 der Zeichentrickfilm(e)  
 Ich sehe gern fern.  
 der Zuschauer(-)  
 das Fernsehen  
 die Fernsehsendung(en)  
 die Serie(n)  
 die Gameshow(s)  
 die Realityshow(s)  
 die Dokumentation(en)

**Film and television**

film, movie  
 action movie  
 fantasy film  
 horror film  
 comedy  
 detective / crime film  
 romance  
 sci-fi film  
 thriller  
 cartoon  
 I like watching TV.  
 viewer  
 television  
 TV programme  
 series  
 game show  
 reality show  
 documentary

die Nachrichten (pl)  
 Ich finde (Serien) (blöd).  
 Ich habe (die Sendung / den Film) (großartig) gefunden.  
 Die Sendung / Der Film / Die Handlung war ...  
 Die Schauspieler waren ... (un)realistisch schwach enttäuschend überzeugend humorvoll  
 (Der Film) macht keinen Sinn.  
 Ich bin von (der Sendung / dem Film) (nicht) begeistert, weil ...  
 Ich empfehle (die Sendung / den Film), weil ...

the news  
 I find (series) (silly).  
 I found (the programme / film) (great).  
 The programme / film / plot, story line was ...  
 The actors were ... (un)realistic weak disappointing convincing humorous, amusing  
 (The film) doesn't make sense.  
 I'm (not) enthusiastic about (the programme / film) because ...  
 I recommend (the programme / film) because ...

**Sport**

Ski fahren  
 snowboarden  
 rodeln  
 eislaufen  
 Curling spielen  
 Nordic Walking machen  
 wandern  
 klettern  
 schwimmen  
 Fahrrad / Rad fahren  
 Handball / Fußball / Tennis spielen  
 Ich spiele gern (Fußball).  
 Ich turne seit (fünf Jahren).

**Sport**

to go skiing  
 to go snowboarding  
 to sledge, toboggan  
 to ice skate  
 to do curling  
 to go Nordic walking  
 to hike  
 to climb  
 to swim  
 to cycle  
 to play handball / football / tennis  
 I like playing (football).  
 I have been doing gymnastics for (five years).  
 I (don't) like doing (Nordic walking).

Ich habe mit (sechs) Jahren angefangen, Tennis zu spielen.  
 Ich habe (Rollschuhlaufen) im Alter von (sechs) Jahren gelernt.  
 Ich habe schon (Golf) ausprobiert.  
 Ich würde (nie) (Skateboard fahren).  
 Ich trainiere (jeden Tag) mit Freunden im Verein.  
 die Bodenübung  
 der Hochweitsprung  
 der 100-Meter-Lauf  
 das Ringen  
 das Schwingen  
 das Steinheben  
 das Steinstoßen  
 der Weitsprung

I started to play tennis when I was (six) years old.  
 I learned to (roller skate) at the age of (six).  
 I have already tried (golf).  
 I would (never) do (skateboarding).  
 I train with friends at the club (every day).  
 floor work  
 high long jump  
 100-metre sprint  
 wrestling  
 another type of wrestling  
 stone lifting  
 stone tossing  
 long jump

**Feste und Feiertage**

am 24. Dezember (usw.)  
 'eiern  
 (Zeit) verbringen  
 stattfinden  
 zu Ostern  
 zu Weihnachten  
 der Feiertag(e)  
 der Festzug(-e)  
 der Karneval  
 der Fasching  
 der Maibaum(-e)  
 die Fete(n)  
 das Fest(e)  
 das Feuerwerk(e)  
 das Geschenk(e)  
 das Volksfest(e)  
 Es gibt ...  
 Reden / Feste / Konzerte

**Celebrations and holidays**

on the 24th December (etc.)  
 to celebrate  
 to spend (time)  
 to take place  
 at Easter  
 at Christmas  
 public holiday  
 procession  
 carnival  
 carnival  
 may pole  
 party  
 festival, fair  
 fireworks (pl)  
 present  
 (traditional) folk fair  
 There is/are ...  
 speeches / celebrations / concerts

Musik / Tanz / tolle Kostüme  
 Proteste / ein Feuerwerk  
 Ich bin (auf den Weihnachtsmarkt) gegangen.  
 Das war der Höhepunkt des Jahres.  
 Die Stimmung war super.  
 Ich habe (Lebkuchen) gegessen / gekauft.  
 Am Ende des Tages war ich (völlig satt / müde).  
 Ich würde gern (auf einen Markt in England) gehen.  
 Es würde mich interessieren, ... zu sehen.  
 Ich könnte über ... lernen.  
 Ich werde nächstes Jahr (in England) feiern.

music / dancing / great costumes  
 protests / fireworks  
 I went (to the Christmas market).  
 That was the highlight of the year.  
 The atmosphere was great.  
 I ate / bought (gingerbread).  
 At the end of the day I was (totally full / tired).  
 I would like to go (to a market in England).  
 I would be interested in seeing ...  
 I could learn about ...  
 Next year I will celebrate (in England).

**Oft benutzte Wörter**

aufregend  
 ausgezeichnet  
 blöd  
 eindrucksvoll  
 fantastisch  
 gewalttätig  
 großartig  
 gruselig

**High-frequency words**

exciting, thrilling  
 excellent  
 stupid, silly  
 impressive  
 fantastic  
 violent  
 great  
 creepy, scary

lang  
 langweilig  
 lustig  
 romantisch  
 schrecklich  
 spannend  
 unterhaltsam

long  
 boring  
 funny  
 romantic  
 terrible  
 exciting, suspenseful  
 entertaining

**Oft benutzte Wörter**

jeden Tag  
 jede Woche  
 oft  
 ab und zu  
 nie  
 einmal pro Woche  
 zweimal pro Woche  
 dreimal pro Monat  
 viermal pro Jahr  
 ausgezeichnet  
 blöd  
 beeindruckend  
 fantastisch  
 großartig

**High-frequency words**

every day  
 every week  
 often  
 now and then  
 never  
 once a week  
 twice a week  
 three times a month  
 four times a year  
 excellent  
 stupid, silly  
 impressive  
 fantastic  
 great

gruselig  
 lang  
 langweilig  
 lustig  
 romantisch  
 schrecklich  
 spannend  
 unterhaltsam  
 im Sommer  
 im Winter  
 bestimmt  
 vielleicht  
 nicht  
 nie

creepy, scary  
 long  
 boring  
 funny  
 romantic  
 terrible  
 exciting, thrilling  
 entertaining  
 in summer  
 in winter  
 definitely  
 perhaps  
 not  
 never

| infinitive               | present    | past (perfect)           | future                  |
|--------------------------|------------|--------------------------|-------------------------|
| feiern<br>(to celebrate) | ich feiere | ich habe ...<br>gefeiert | ich werde ...<br>feiern |
| essen<br>(to eat)        | ich esse   | ich habe ...<br>gegessen | ich werde ...<br>essen  |
| gehen<br>(to go)         | ich gehe   | ich bin ...<br>gegangen  | ich werde ...<br>gehen  |



# Vocabulary mat year 9: Winter Semester

## Las películas

una película de amor  
una película de terror  
una película de acción  
una película de aventuras

## Films

a love film  
a horror film  
an action film  
an adventure film

una película de animación  
una película de ciencia ficción  
una película de fantasía  
una película extranjera

an animated film  
a sci-fi film  
a fantasy film  
a foreign film

## Nacionalidades

americano/a  
británico/a  
griego/a  
italiano/a  
mexicano/a  
alemán / alemana

## Nationalities

American  
British  
Greek  
Italian  
Mexican  
German

español(a)  
francés / francesa  
galés / galesa  
inglés / inglesa  
irlandés / irlandesa  
japonés / japonesa

Spanish  
French  
Welsh  
English  
Irish  
Japanese

## Temas del momento

He compartido...  
He comprado...  
He descargado...  
He gastado...  
He hecho...  
He jugado...  
He leído...  
He perdido...  
He subido...  
He visto...  
el nuevo álbum / libro de...  
la nueva canción / película de...  
¿Qué música has escuchado...  
esta semana / este mes /  
este año?

## Trending topics

I have shared...  
I have bought...  
I have downloaded...  
I have spent...  
I have done...  
I have played...  
I have read...  
I have lost...  
I have uploaded...  
I have seen / watched...  
the new... album / book  
the new... song / film  
What music have you listened to...  
this week / this month / this year?

Cuenta la historia de...  
Combina el misterio con la acción.  
El final / La banda sonora...  
es bueno/a / malo/a  
es feliz / triste / raro/a  
Los actores / Los gráficos  
Los efectos especiales...  
Los personajes...  
Las animaciones / canciones  
son...  
buenos/as / estupendos/as  
decepcionantes  
guapos/as / interesantes  
irritantes / impresionantes  
locos/as / originales

It tells the story of...  
It combines mystery with action.  
The ending / The soundtrack...  
is good / bad  
is happy / sad / strange  
The actors / The graphics...  
The special effects...  
The characters...  
The animations / songs  
are...  
good / brilliant  
disappointing  
good looking / interesting  
irritating / impressive  
mad / original

## ¿En el cine o en casa?

Prefiero ir al cine porque...  
Prefiero ver las pelis en casa  
porque...  
el ambiente es mejor.  
la imagen es mejor en la  
gran pantalla.  
los asientos no son cómodos.

## At the cinema or at home?

I prefer going to the cinema because...  
I prefer watching films at home  
because...  
the atmosphere is better.  
the picture is better on the  
big screen.  
the seats aren't comfortable.

los otros espectadores  
me molestan.  
las entradas son caras.  
las palomitas están ricas.  
hay demasiadas personas.  
me encanta ver los tráilers  
para las nuevas pelis.  
(No) estoy de acuerdo.  
los otros espectadores  
me molestan.  
the tickets are expensive.  
the popcorn is tasty.  
there are too many people.  
I love watching the trailers for  
the new films.  
I (don't) agree.

## Ir al cine, al teatro, etc.

¿Tienes ganas de ir...  
a un festival / a un espectáculo  
de...?  
al cine / al teatro / al circo?  
esta tarde?  
esta noche?  
mañana / el viernes?  
¿Qué ponen?

## Going to the cinema, theatre, etc.

Do you fancy going...  
to a festival / to a... show?  
to the cinema / theatre / circus?  
this afternoon / evening?  
tonight?  
tomorrow / on Friday?  
What's on?

Es una película / obra de...  
¿Cuánto cuesta?  
Son... euros.  
¿A qué hora empieza / termina?  
Empieza / Termina a las...  
Dos entradas para..., por favor.  
Para la sesión de las...  
No quedan entradas.  
It's a... film / play.  
How much does it cost?  
It's... euros.  
What time does it start / finish?  
It starts / finishes at...  
Two tickets for..., please.  
For the... showing / performance.  
There are no tickets left.

## Los modelos a seguir

Mi modelo a seguir es...  
Admiro a... porque...  
ayuda a organizaciones  
benéficas  
lucha por / contra...  
la pobreza / los derechos  
humanos  
tiene mucho talento / éxito  
tiene mucha determinación  
trabaja en defensa de los  
animales  
usa su fama para ayudar a otros

## Role models

My role model is...  
I admire... because...  
he/she helps charities  
he/she fights for / against...  
poverty / human rights  
he/she is very talented / successful  
he/she has a lot of determination  
he/she works in defence of  
animals  
he/she uses his/her fame to  
help others

Es...  
No es ni... ni...  
ambicioso/a / egoísta  
famoso/a / fuerte  
generoso/a / optimista  
rico/a / simpático/a  
trabajador(a) / valiente  
Ha batido muchos récords.  
Ha ganado muchos premios.  
Ha hablado abiertamente de...  
Ha hecho varias películas.  
Ha recaudado más de...  
Ha sufrido varias enfermedades.  
Ha superado sus problemas.  
He/She is...  
He/She is neither... nor...  
ambitious / selfish  
famous / strong  
generous / optimistic  
rich / nice  
hardworking / brave  
He/she has beaten lots of records.  
He/she has won lots of prizes / awards.  
He/she has spoken openly about...  
He/she has made several films.  
He/she has raised more than...  
He/she has suffered several illnesses  
He/she has overcome his/her  
problems.



# Vocabulary mat year 9: Winter Semester

## La paga

Recibo...  
...euros a la semana / al mes  
dinero de vez en cuando  
dinero para mi cumpleaños  
Gasto mi paga en...

## Pocket money

I receive...  
...euros a week / a month  
money from time to time  
money for my birthday  
I spend my pocket money on...

Compro...  
caramelos  
saldo para el móvil  
revistas / videojuegos  
ropa y maquillaje

I buy...  
sweets  
credit for my mobile phone  
magazines / computer games  
clothes and make up

## Mis ratos libres

Tengo muchos pasatiempos.  
A la hora de comer...  
Cuando tengo tiempo...  
Después del insti...  
Los fines de semana...  
Los (lunes)...  
Por la mañana / tarde...  
Por la noche...  
cocino  
juego al fútbol / al squash  
monto en bici / monopatin  
toco la guitarra / la trompeta  
voy / vamos...  
al polideportivo / al centro  
comercial / a la pista de  
hielo / a la bolera

## My freetime

I have lots of hobbies.  
At lunchtime...  
When I have time...  
After school...  
At weekends...  
On (Mondays)...  
In the morning / afternoon /  
evening...  
At night...  
I cook  
I play table football / squash  
I ride my bike / skateboard  
I play the guitar / trumpet  
I go / we go...  
to the sports centre / to the  
shopping centre / to the ice  
rink / to the bowling alley

## Suelo...

descansar  
escuchar música / la radio  
hacer deporte  
ir al cine  
leer libros / revistas / periódicos  
salir con amigos  
usar el ordenador  
ver la tele  
Es divertido / sano  
Soy...  
activo/a / creativo/a  
sociable / adicto/a a...  
Me hace reír / relajarme  
Necesito estar...  
al aire libre  
en contacto con otra gente

## I tend to / I usually...

rest  
listen to music / the radio  
do sport  
go to the cinema  
read books / magazines /  
newspapers  
go out with friends  
use the computer  
watch TV  
It's fun / healthy  
I am...  
active / creative  
sociable / addicted to...  
It makes me laugh / relax  
I need to be...  
outdoors  
in touch with other people

## La música

Me gusta el soul / el rap /  
el dance / el hip-hop / el pop /  
el rock / el jazz /  
la música clásica / electrónica  
Toco / Mi hermano/a toca...  
el teclado / el piano /  
la batería / la flauta

## Music

I like soul / rap /  
dance / hip-hop / pop /  
rock / jazz /  
classical / electronic music  
I play / My brother/sister plays...  
the keyboard / the piano /  
the drums / the flute

## Mi cantante favorito/a es...

Fui a un concierto de...  
Canté y bailé.  
Compré una camiseta de la gira.  
Comí / Bebi...  
Fue genial / increíble /  
inolvidable.

My favourite singer is...  
I went to a... concert.  
I sang and danced.  
I bought a tour t-shirt.  
I ate / drank...  
It was great / incredible /  
unforgettable.

## El deporte

Antes era...  
Ahora soy...  
(bastante / muy) deportista  
miembro de un club / un equipo  
aficionado/a de...  
un(a) fanático/a de...  
Juego al...  
Jugué al...  
Jugaba al...  
baloncesto / balonmano  
críquet / fútbol  
hockey / ping-pong  
rugby / tenis / voleibol  
Hago...  
Hice...  
Hacía...

## Sport

Before I used to be...  
Now I am...  
(quite / very) sporty  
a member of a club / a team  
a fan of...  
a... fanatic  
I play...  
I played...  
I used to play...  
basketball / handball  
cricket / football  
hockey / table tennis  
rugby / tennis / volleyball  
I do...  
I did...  
I used to do...

## atletismo / ciclismo

equitación / escalada  
gimnasia / judo  
karate / natación  
patinaje sobre hielo  
piragüismo  
Entreno  
Ayer / Esta mañana...  
La temporada pasada...  
jugué un partido  
marqué un gol  
gané / ganamos el campeonato  
Mi jugador(a) favorito/a es...  
Lo mejor fue cuando...  
batió el récord  
ganó / marcó...

## athletics / cycling

horseriding / climbing  
gymnastics / judo  
karate / swimming  
ice skating  
canoeing  
I train  
Yesterday / This morning...  
Last season...  
I played a match  
I scored a goal  
I / we won the championship  
My favourite player is...  
The best thing was when...  
he/she beat the record  
he/she won / scored...

## La tele

(No) soy teleadicto/a  
Veo la tele... horas al día  
Mi programa favorito es...  
un concurso  
un programa de deporte  
un reality  
un documental  
una telenovela  
una comedia  
una serie policiaca

## TV

I'm (not) a TV addict  
I watch TV... hours a day  
My favourite programme is...  
a game/quiz show  
a sports programme  
a reality TV show  
a documentary  
a soap  
a comedy  
a crime series

## Me gustan las comedias

No me gustan las noticias  
Es / Son...  
aburrido/a(s)  
adictivo/a(s)  
divertido/a(s)  
entretenido/a(s)  
tonto/a(s)  
informativo/a(s)  
emocionante(s)  
interesante(s)

## I like comedies

I don't like the news  
It is / They are...  
boring  
addictive  
fun  
entertaining  
silly  
informative  
exciting  
interesting



# Y9 History Knowledge Organiser Winter Semester: World War One

|  |   |  |   |  |  |
|--|---|--|---|--|--|
| <p>This enquiry investigates the reasons for the first ever 'world war', and the reasons why it began in 1914. The tensions that fuelled the war had been building between European countries since the creation of a united Germany in 1871. You will study the long term and short term causes of World War I.</p> |   | <b>Chronology: what happened on these dates?</b> |   | <b>Vocabulary: define these words.</b> |  |
|  |   | <b>1870–71</b>                                   | The Franco-Prussian War. Victory led to the creation of the German Empire.  | <b>Prussia</b>                         | The largest German state on the southeast coast of the Baltic Sea.   |
| <b>Summarise your learning</b>   |   | <b>1906</b>                                      | HMS <i>Dreadnought</i> launched, changing the nature of naval warfare   | <b>Tension</b>                         | A feeling of fear or anger between two countries who do not trust each other.                                    |
| <b>Cause 1: Empires</b>  | In 1914, several European nations wanted big empires. By this time, Britain had already conquered lots of land all over the world. This desire to build empires is known as imperialism. The race to gain control of other nations, particularly in Africa, led to tension and fierce rivalries among European countries. They began to see each other as a threat to their empires and thought war was the only way to remove this threat.   | <b>28<sup>th</sup> June 1914</b>                 | Assassination of Archduke Franz Ferdinand by Bosnian-Serb Gavrilo Princip.  |  |  |
| <b>Causes 2: Arms Race</b>   | As well as taking pride in their countries, people took great pride in their armies and navies. To make sure that theirs were the best, countries spent more and more money on huge armies and were prepared to use their forces aggressively to defend or promote the country. This is known as militarism. Nobody wanted the smallest army, so some countries got caught up in an arms race. To many, there was no point in having a big, expensive army if you weren't going to use it, and whenever countries fell out the temptation to use these forces was always there. |  |   | <b>Empire</b>                          | A group of countries ruled by a single country.  |
|  |   |  |   | <b>Militarism</b>                      | The belief that it is necessary to have strong armed forces and that they should be used in order to gain power. |
| <b>Cause 3: Alliances</b>  | As each country began to feel threatened, they looked for friends (allies) to back them up in a war. Europe split into two alliances: the Triple Entente (Britain, France & Russia) and the Triple Alliance (Germany, Austria-Hungary & Italy). Although this was meant to keep Europe more secure by being a deterrent, it meant it would only take one small disagreement between two nations in different alliances for much of Europe to be dragged into a war.   | <b>Who or what were these people/events?</b>     |   | <b>Navy</b>                            | The part of a country's armed forces that is trained to operate at sea.  |
|  |   | <b>Alfred von Schlieffen</b>                     | Schlieffen developed a plan in 1897 in which Germany would attack and defeat France quickly, and then fight Russia. | <b>Alliances</b>                       | An agreement between countries that benefits each of them.   |
| <b>Cause 4: Nationalism</b>  | At the beginning of the twentieth century, people started to take great pride in their countries. Some people went a step further and felt that their country was better than others. This is called nationalism. Unfortunately, for many leaders of Europe, the obvious way to prove they were the best was to have a war with their rivals. Countries in the Balkans also wanted to defend their nations from being conquered.  | <b>The Black Hand</b>                            | A secret society of Serbs dedicated to unite all Serbs in the Balkans.  | <b>Assassination</b>                   | The planned murder of an important person.   |
|  |   | <b>Archduke Franz Ferdinand</b>                  | Heir to the Austro-Hungarian Empire, assassinated by Gavrilo Princip in 1914.                                       | <b>Nationalism</b>                     | A nation's wish and attempt to be politically independent OR a great love of your own country.                   |
| <b>Cause 5: Shooting</b>   | On 28 <sup>th</sup> June 1914, the heir to the kingdom of Austria-Hungary – Archduke Franz Ferdinand – was assassinated in Sarajevo, Bosnia, by a Serb nationalist, Gavrilo Princip. This sparked off the war as it triggered the alliance systems and leads Germany's Schlieffen Plan.   | <b>Dreadnought</b>                               | British battleship launched in 1906 which sparked the naval arms race.  | <b>Balkans</b>                         | A region in south eastern Europe.  |
|  |   | <b>Gavrilo Princip</b>                           | A Bosnian-Serb nationalist who assassinated Franz Ferdinand and Sophia.   | <b>Causation</b>                       | Understanding the different causes of an event.  |



# Y9 History Knowledge Organiser Winter Semester: World War One

| Key words           | Definitions   |
|---------------------|---|
| Attrition           | The tactic of defeating an enemy by wearing them down.  |
| Stalemate           | A situation where no one is in a position to win.   |
| Trench              | A long, narrow ditch dug by troops to provide shelter from enemy fire.                                    |
| Battle of the Somme | Decisive battle in 1916 that is remember for huge loses on the first day.                                 |
| Western Front       | Main line of trenches mainly through France and Belgium.  |
| Chlorine gas        | One of the first gases used for gas attacks.  |
| The Allies          | Britain, France, Russia, USA etc.   |
| Central Powers      | Germany, Austria-Hungary, Ottoman Empire etc.   |
| Evacuation Route    | System developed to get soldiers out of No Man's Land to appropriate medical help as quickly as possible. |
| Trench foot         | Medical condition resulting from feet being cold and wet for a long time.                                 |
| Shell shock         | Type of post-traumatic shock disorder from intensity of fighting.   |
| Mark 1              | The first tank developed by Britain, deployed in 1916.  |

## Source skills.

Exam question stem -> how **useful** is the **source** for an **enquiry** into...

**Useful** means that the source has taught you about what you want to find out. This means you have looked at its **nature** (what it is), **origin** (who made it & when), **purpose** (why it was made), **typicality** (is it normal for the time period & location) and **limitations** (what is missing). The **source** will be given to you with some details about it. It can be a primary source and be made at the time of the historical event or a secondary source and be made at a later date about a historical event.

The question will give you an **enquiry** focus. This just means what it wants you to find out about. It could be to find out about fighting conditions or to enquire into different injuries caused, for example.

Typical WW1 sources used:

- soldiers' diaries [1]
- soldiers' letters [1]
- national newspapers [1]
- admission and discharge records [1] from hospitals [1]
- War Office statistics [1]
- local newspapers [1]
- diaries of medical professionals [1]
- articles by medical professionals [1]
- photographs [1]

## Describe two features of...

**Describe** – you will be expected to identify the feature using the correct subject specific terminology. You then need to use examples or subject knowledge to give a detailed account of the feature you have identified.

**Features** – this would be an aspect of what is being described. For example, a dugout is a feature of a trench or 'going over the top' is a feature of trench warfare.

Remember to identify and describe **TWO** different features to get the full 4 marks available for this question.

How could you follow up the Source for an enquiry into...

**Follow up** – in order investigate you need to identify a detail in the source, offer a question you could ask, suggest sources to find out an answer and explain how the sources would give you your answer.

**Enquiry** – again this is the focus of what you should be looking to find out about. Make sure to stick close to this brief in order to get the full 4 marks available.

You will be prompted with sub headings for this exam question.

## Key dates & individuals of WW1:

**28<sup>th</sup> June 1914** – the assassination of Archduke Franz Ferdinand, which sparked all-out war in Europe.

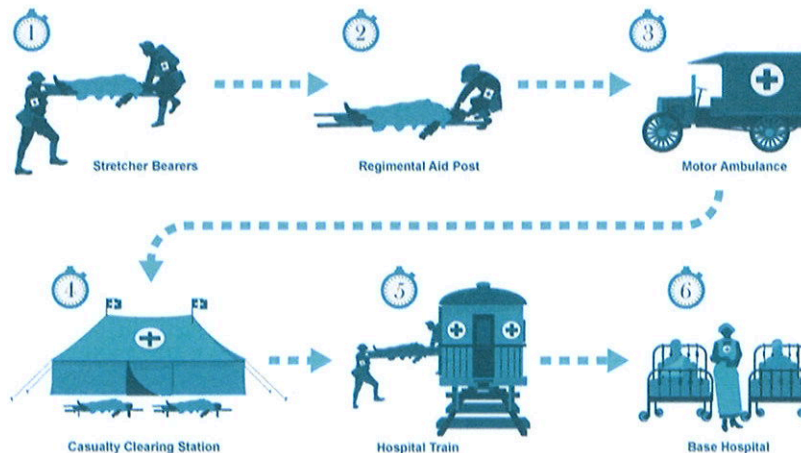
**Gavrilo Princip** – a Bosnian Serb who shot the Archduke in Sarajevo and was sentenced to 20 years in prison.

**1914-1918** – the start and end dates of WW1.

**Field Marshall Haig** – commander of British forces in WW1 from late 1915 until the end of war. He presided over the Battle of the Somme, the Spring Offensive and the Hundred Days Offensive.

**1<sup>st</sup> July-18<sup>th</sup> November 1916** – the Battle of the Somme. A decisive battle, remembered for the first day which is the bloodiest day in British military history.

**Wilfred Owen** – a soldier from WW1 who wrote poetry to help him work through his shell shock, killed in action 4<sup>th</sup> November 1918.



## Weapons of WW1:

- Large artillery guns
- Machine gun
- Gas
- Shrapnel
- Tanks
- Aircraft
- Flamethrowers
- German U-boat

One of the biggest killers throughout WW1 was infection. Doctors and nurses had to adapt to deal with such high fatalities from these wounds. As a result, wounds started to be cleaned and any debris removed and the body's own natural healing processes were allowed to take over the rest. This had a huge impact on mortality rates.



# Y9 REGGAE

## Key Terminology:

Reggae – style of music from Jamaica

Off-beat – emphasizing the weaker beats of the bar (1 2 3 4)

Rastafarianism – main religion of Jamaica

Melody – the main tune

Emotion – reaction of the music

Expression how the piece is played

Instrumentation – instruments used in the music

Composition – creating music

Accuracy – how correct the music is to the score

Syncopation – off-beat feel of the music

Accompaniment – other aspects of the music

Strophic form- repeated verse chorus structure of the music

Rock line-up – vocals, backing vocals, electric guitars, bass guitar, drum kit.

Riffs – repeating pattern in music

Time signature – how many beats in a bar (4/4)

Flat – note that is a semitone lower (Bb/ B Flat)

Major – happy sounding chord

Minor – sad sounding chord

Rhythm – pattern of long and short sounds.

## ONBEAT RHYTHM GRID

|  |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|
| Pulse/<br>Beat                           | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| "Onbeat"<br>rhythms<br>(strong<br>beats) | ♪ | ♪ | ♪ | ♪ | ♪ | ♪ | ♪ | ♪ |

## OFFBEAT RHYTHM GRID

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| Pulse/<br>Beat                          | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| "Offbeat"<br>rhythms<br>(weak<br>beats) | ♪ | ♪ | ♪ | ♪ | ♪ | ♪ | ♪ | ♪ |

What is  
Syncopation in Music?




## Musical Skills Learnt:

**Ensemble, Performing, Theory (Elements of Music), World Music, Culture of Music, Leadership, Confidence, Creativity, Appraising, Composing, Rhythms, reading musical notation, keyboard skills, rhythm,**



# Year 9 Drama : Creating Tension

<https://youtu.be/KGU5pvvdLs0>

Watch the above clip to hear how the sound designer at The Old Vic creates atmosphere through sound

## HOW YOU CAN CREATE TENSION

Pauses and silences

Twists and unexpected moments

Isolated vulnerable characters

Short, limited dialogue

Slow tempo with sudden jumps

Dark lighting

Music and sound effects



## Sound design – How you can manipulate sound

- **Reverse:** Plays a sound effect backwards by reversing the audio signal. This can be used to create a 'lead in' to a big sound effect.
- **Changing Pitch:** Changing pitch either makes something sound higher or lower in pitch. A half-tone is a semi-tone – and there are exactly 12 half tones in an octave, so changing something by 12 half-tones results in a sound that's exactly an octave lower or higher.
- **Changing Tempo:** Tempo is the speed at which a sound effect or piece of music is played. Changing tempo allows you to speed up or slow down the spaces between sounds.
- **Changing Speed:** Distorts the waveform of a sound effect by either shortening it or elongating it.
- **EQ. Or 'equaliser':** This effect will either take down or boost certain frequencies. You can use this to make an effect clearer or to change the way it sounds. For example, in the video above, Nicola boosts the high frequencies within her clapping sound effect to create a more clipped or higher pitched sound. Nicola also tries boosting the lower frequencies to create a more muted clapping effect.
- **Echo:** How many repeats of a sound you'll get after its first instance.
- **Reverb:** Simulates what you hear when your sound is played in a space with different properties. For example, you could use this to change the way an effect sounds in a small or large room.

## LEARN BY DOING:

You have an app on your ipad in the Drama tab

It's called Lexis Audio Editor

Have a go a recording and creating your own sound clip

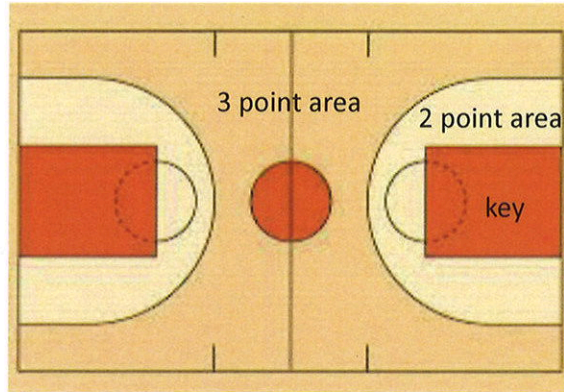


## Year 9 Knowledge Organiser- BASKETBALL

### Rules and regulations

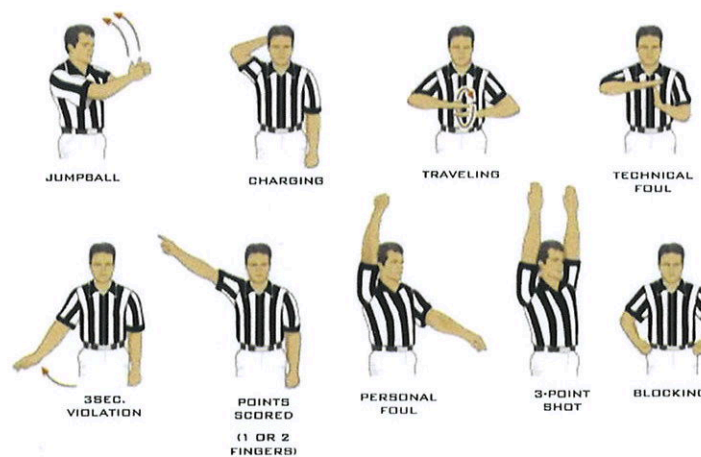
- 2 teams of 5 players
- **3 in the key** - cannot be in the key area for longer than 3 seconds before leaving and re-entering
- **Scoring**: 2 points if you score (ball goes through the net) inside the arc  
3 points if you score outside the arc/three-point line
- **Tip-off**: The game starts by two players jumping to compete a ball that is thrown straight up by the referee
- **Contact**: you must not interfere with play by touching, or pushing an opponent.
- **Travelling**: You must not move your landing foot or take 3 steps whilst in possession of the ball
- **Double Dribble**: Once you stop dribbling the ball you cannot restart.  
You cannot bounce the ball with two hands at the same time

### The Court



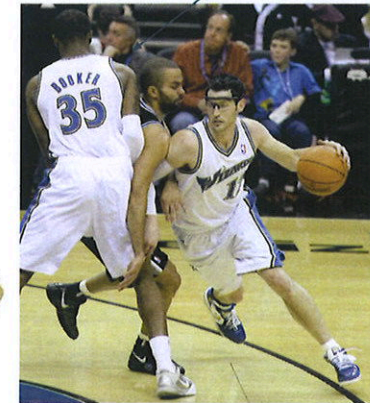
### Refereeing

#### BASKETBALL REFEREE HAND SIGNALS



Techniques:  
 Cross-over Dribble  
 Rebounds  
 L-Drive  
 V-Cut  
 Chest Pass  
 Bounce Pass  
 Jump Stop  
 Set Shot  
 Lay-up  
 Pivot  
 Man-to-man Defence

Block/Screen

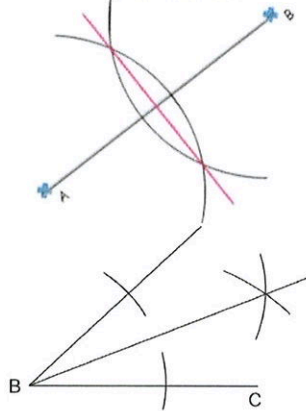


Dribble close to your team mate  
 Team mate (35 in pic) to **hold their ground, plant feet and do not move.**  
 This blocks the defender from following you.



# WINTER Year 9f CONSTRUCTIONS

## Key Concept Line Bisector



## Key Words

**Construction:** To draw a shape, line or angle accurately using a compass and ruler.

**Loci:** Set of points with the same rule.

**Parallel:** Two lines which never intersect.

**Perpendicular:** Two lines that intersect at 90°.

**Bisect:** Divide into two parts.

**Equidistant:** Equal distance.

## Tip

Watch for scales.

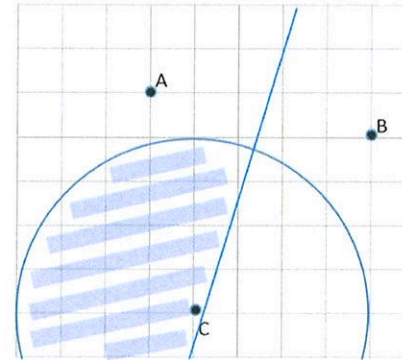
For a scale of:  
1 cm = 4 km.

20 km = 5 cm  
6 cm = 24 km

## Examples

Shade the region that is:

- closer to A than B
- less than 4 cm from C



Line bisector  
of A and B

Circle with  
radius 4cm

## Questions

- 1) Draw these angles then bisect them using constructions:  
a) 46°      b) 18°      c) 124°
- 2) Draw these lines and bisect them:    a) 6cm      b) 12cm



# WINTER Year 9 H Knowledge Organiser

## STANDARD FORM

**Key Concepts**

We use standard form to write a very large or a very small number in scientific form.

Must be  $\times 10$   
 $b$  is an integer

$a \times 10^b$

Must be  $1 \leq a < 10$

**Examples**

Write the following in **standard form**:

- 1)  $3000 = 3 \times 10^3$
- 2)  $4580000 = 4.58 \times 10^6$
- 3)  $0.0006 = 6 \times 10^{-4}$
- 4)  $0.00845 = 8.45 \times 10^{-3}$

Calculate the following, write your answer in **standard form**:

- 1)  $(3 \times 10^3) \times (5 \times 10^2)$   
 $3 \times 5 = 15$   
 $10^3 \times 10^2 = 10^5$   
 $\left. \begin{array}{l} 15 \times 10^5 \\ = 1.5 \times 10^6 \end{array} \right\}$
- 2)  $(8 \times 10^7) \div (16 \times 10^3)$   
 $8 \div 16 = 0.5$   
 $10^7 \div 10^3 = 10^4$   
 $\left. \begin{array}{l} 0.5 \times 10^4 \\ = 5 \times 10^3 \end{array} \right\}$

**Key Words**  
Standard form  
Base 10

**Links**  
Science

A) Write the following in standard form:  
 1) 74 000    2) 1 042 000    3) 0.009    4) 0.000 001 24

B) Work out:  
 1)  $(5 \times 10^2) \times (2 \times 10^5)$     2)  $(4 \times 10^3) \times (3 \times 10^8)$   
 3)  $(8 \times 10^6) \div (2 \times 10^5)$     4)  $(4.8 \times 10^2) \div (3 \times 10^4)$

ANSWERS: A1)  $7.4 \times 10^4$  2)  $1.042 \times 10^6$  3)  $9 \times 10^{-3}$  4)  $1.24 \times 10^{-6}$   
 B1)  $1 \times 10^8$  2)  $1.2 \times 10^{12}$  3)  $4 \times 10$  4)  $1.6 \times 10^{-2}$



# WINTER Year 9 H Knowledge Organiser

## INDICES AND ROOTS

### Key Concepts

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

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

$$(a^m)^n = a^{mn}$$

$$a^{-m} = \frac{1}{a^m}$$

$$a^{\frac{m}{n}} = \sqrt[n]{a^m}$$

$$a^{-\frac{m}{n}} = \frac{1}{\sqrt[n]{a^m}}$$

Simplify each of the following:

$$1) a^6 \times a^4 = a^{6+4} = a^{10}$$

$$2) a^6 \div a^4 = a^{6-4} = a^2$$

$$3) (a^6)^4 = a^{6 \times 4} = a^{24}$$

$$4) (3a^4)^3 = 3^3 a^{4 \times 3} = 27a^{12}$$

Examples

$$5) a^{-3} = \frac{1}{a^3}$$

$$6) 2a^{-4} = \frac{2}{a^4}$$

$$7) a^{\frac{1}{2}} = \sqrt[2]{a^1} = \sqrt{a}$$

$$8) a^{-\frac{1}{2}} = \frac{1}{a^{\frac{1}{2}}} = \frac{1}{\sqrt{a}}$$

$$9) \left(\frac{25}{16}\right)^{-\frac{1}{2}} = \left(\frac{16}{25}\right)^{\frac{1}{2}}$$

$$= \sqrt{\frac{16}{25}}$$

$$= \frac{4}{5}$$

### Key Words

Powers  
Roots  
Indices  
Reciprocal

Write as a single power: 1)  $a^3 \times a^2$  2)  $b^4 \times b$  3)  $d^{-5} \times d^{-1}$  4)  $m^6 \div m^2$  5)  $n^4 \div n^4$  6)  $\frac{8^4 \times 8^5}{8^6}$  7)  $\frac{4^9 \times 4}{4^3}$

Evaluate: 1)  $(3^2)^5$  2)  $2^{-2}$  3)  $81^{\frac{1}{2}}$  4)  $\left(\frac{1}{9}\right)^{\frac{1}{2}}$  5)  $16^{\frac{3}{2}}$  6)  $27^{-\frac{2}{3}}$

ANSWERS: 1)  $a^5$  2)  $b^5$  3)  $d^{-6}$  4)  $m^4$  5) 1 6)  $8^3$   
7)  $4^7$   
1)  $3^{10}$  2)  $\frac{1}{4}$  3) 9 4)  $\frac{1}{3}$  5) 64 6)  $\frac{1}{9}$



# WINTER Year 9 H Knowledge Organiser

## SOLVING QUADRATICS

### Key Concepts

We can solve quadratic equations in 4 different ways:

$$ax^2 + bx + c = 0$$

**Factorising** – put into brackets first

**Completing the square**

$$\left(x + \frac{b}{2}\right)^2 + c - \left(\frac{b}{2}\right)^2 = 0$$

**Quadratic formula**

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

**Graphically**

Substitute values of x from at least -3 to 3 in order to find and plot your y-values.

A quadratic graph will be a PARABOLA – a U or n shape

**Factorising:**

$$x^2 + 7x + 10 = 0$$

$$(x + 2)(x + 5) = 0$$

$$\text{Either: } x + 2 = 0 \\ x = -2$$

$$\text{Or: } x + 5 = 0 \\ x = -5$$

**Completing the square –**  
leave your answer in root form:

$$x^2 + 6x + 5 = 0$$

$$\left(x + \frac{6}{2}\right)^2 + 5 - \left(\frac{6}{2}\right)^2 = 0$$

$$(x + 3)^2 + 5 - 3^2 = 0$$

$$(x + 3)^2 - 4 = 0$$

$$\text{Either: } x = \sqrt{4} - 3$$

$$\text{Or: } x = -\sqrt{4} - 3$$

**Quadratic formula – give your answer to 2 decimal places:**

$$x^2 + 4x - 2 = 0$$

$$x = \frac{-4 \pm \sqrt{4^2 - 4(1)(-2)}}{2(1)}$$

$$x = \frac{-4 \pm \sqrt{16 + 8}}{2}$$

$$\text{Either: } x = 0.45$$

$$\text{Or: } x = -4.45$$

### Key Words

Solve  
Quadratic Equation  
Factorise  
Completing the Square  
Quadratic formula

- 1) Solve by factorising:  $x^2 + 6x + 8 = 0$
- 2) Solve by completing the square:  $x^2 + 8x + 10 = 0$
- 3) Solve by using the quadratic formula:  $x^2 + 9x - 1 = 0$

ANSWERS: 1)  $x = -2, x = -4$  2)  $x = \sqrt{6} - 4, x = -\sqrt{6} - 4$  3)  $x = 0.11, x = -9.11$



## WINTER Year 9 H Knowledge Organiser - Identifying Algebraic

### Key Concepts

A **formula** involves two or more letters, where one letter equals an **expression** of other letters.

An **expression** is a sentence in algebra that does NOT have an equals sign.

An **identity** is where one side is the equivalent to the other side.

When **substituting** a number into an expression, replace the letter with the given value.

### Terms

### Examples

- 1)  $5(y + 6) \equiv 5y + 30$  is an **identity** as when the brackets are expanded we get the answer on the right hand side
- 2)  $5m - 7$  is an **expression** since there is no equals sign
- 3)  $3x - 6 = 12$  is an **equation** as it can be solved to give a solution
- 4)  $C = \frac{5(F - 32)}{9}$  is a **formula** (involves more than one letter and includes an equal sign)
- 5) Find the value of  $3x + 2$  when  $x = 5$   
 $(3 \times 5) + 2 = 17$
- 6) Where  $A = b^2 + c$ , find A when  $b = 2$  and  $c = 3$   
 $A = 2^2 + 3$   
 $A = 4 + 3$   
 $A = 7$

### Key Words

Substitute  
Equation  
Formula  
Identity  
Expression

### Questions

- 1) Identify the equation, expression, identity, formula from the list
 

|                            |                   |
|----------------------------|-------------------|
| (a) $v = u + at$           | (b) $u^2 - 2as$   |
| (c) $4x(x - 2) = x^2 - 8x$ | (d) $5b - 2 = 13$ |
- 2) Find the value of  $5x - 7$  when  $x = 3$
- 3) Where  $A = d^2 + e$ , find A when  $d = 5$  and  $e = 2$

ANSWERS: 1) (a) formula (b) expression (c) identity (d) equation  
2) 8  
3) A = 27



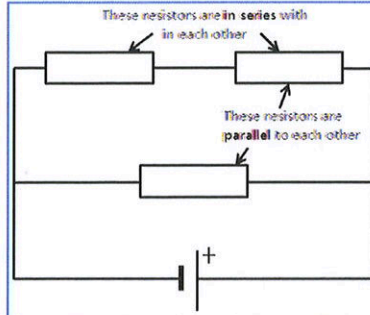
# Physics Knowledge Organiser

## Electricity

### Series and parallel circuits

We can connect components in a circuit in series or in parallel. In some circuits, there are components in series AND components in parallel – see the example in the diagram.

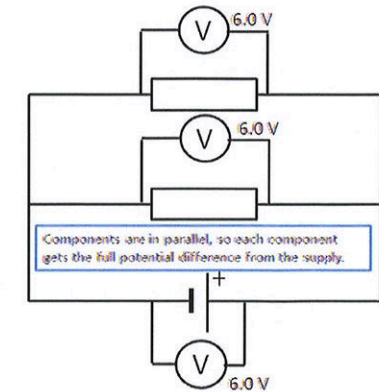
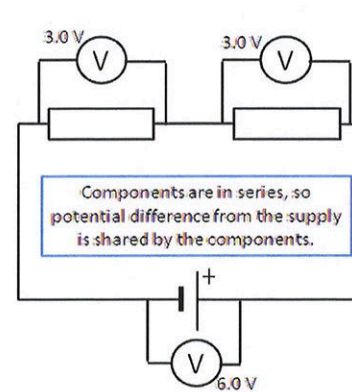
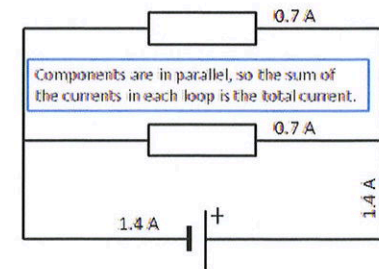
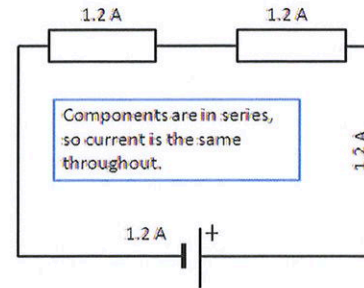
The quantities of resistance, current and potential difference behave differently in components connected in series compared to components connected in parallel. Study the table and diagrams carefully.



| Quantity             | Components connected in series...   | Components connected in parallel...   |
|----------------------|---|---|
| Current              | The current through each component is identical   | Shared between the loops. The total current through the whole circuit is the <b>sum</b> of the currents through each loop of the circuit.   |
| Potential difference | The potential difference provided by the power supply is shared between the components in series (not necessarily equally shared out – it depends on the resistance of each component). | Each loop receives the full potential difference provided by the power supply. If we are dealing with just two components in parallel, the potential difference across each is exactly the same, and exactly the same as the potential difference provided by the power supply. |
| Resistance           | The total resistance of two components is the <b>sum</b> of the resistance of each component (see equation). So, adding more resistors in series <i>increases</i> the total resistance. | The total resistance of two components in parallel is always <b>less</b> than the smallest resistance of the components. As a result, adding <b>more</b> resistors in parallel actually <i>decreases</i> the overall resistance.  |

| Key Terms | Definitions  |
|-----------|--|
| Series    | Components connected one after another in a closed loop.   |
| Parallel  | Components connected in different loops of a circuit.  |
| Resistor  | An electrical component that regulates current in a circuit. Bear in mind, all electrical components have <b>resistance</b> , so are resistors in some sense, as well as being e.g. bulbs. |

| Equation  | Meanings of terms in equation   |
|---|---|
| for series circuits:<br>$R_{total} = R_1 + R_2$ | $R_{total}$ = total resistance (ohms, $\Omega$ )<br>$R_1$ = resistance of first component ( $\Omega$ )<br>$R_2$ = resistance of next component ( $\Omega$ ) – and so on |
| *   |   |





# Physics Knowledge Organiser

## Electricity

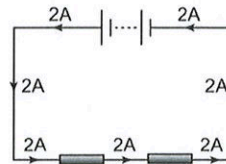
### Electric charge and current

Every atom contains particles with an electric charge: protons and electrons. By getting electric charges to **flow**, we can get them to do work (i.e. transfer energy) in all sorts of useful ways. For that is what happens in any electric circuit you can think of: *flowing charges transfer energy*.

If we want to get electric charges to flow, we must make a **closed**, or complete circuit – a loop of conducting materials, like metal wires. Then, we must provide a source of **potential difference**. The source of potential difference could be a cell, battery or the mains. What these sources do is to create a *difference* in electrical *potential energy* – hence the name. This provides the force to make the **electric charges** in the conductors **flow**. When electric charges, like electrons, are flowing, we call it an **electric current**.

The size of an electric current is simply the **rate** of flow of electric charge.  
So current ( $I$ ) =  $\frac{Q}{t}$  or  $Q = It$

In a circuit, in any closed loop of the circuit, the size of the current is the same throughout the loop. As shown on the diagram, the current is the same in all parts of the loop, including through the battery and through the resistors.



### Current, resistance and potential difference

Cells and batteries etc. are **sources** of potential difference. This means they boost the potential energy of charges in a circuit. Other components, like resistors or bulbs, do **work** – so they take the potential energy of the charges and **transfer** it into some other form, like light or heat. In a circuit, all the energy provided by the cell/battery is transferred by the components in the circuit all together. So, in components like bulbs, the charges do work – i.e. they transfer energy. By definition, this means they have a potential difference **across** them. We say 'across' since it is a difference, from one side of the component to the other.

The current through a component depends on this potential difference across the component, but also its **resistance**. Without any resistance, a component would do no work (try putting a 0 in the equation!), so things like bulbs **HAVE TO** have resistance. The resistance of a component, along with the potential difference across it, determines the current through it, as shown in the second equation. It shows us that: if we keep the potential difference the same, but increase the resistance, the current must *decrease*. If we keep the potential difference the same, but decrease the resistance, the current must *increase*.

| Key Terms            | Definitions   |
|----------------------|---|
| Electric charge      | Just a positive or negative charge! In most electrical circuits, the electric charges that are flowing are <b>electrons</b> – which are of course negatively charged. Symbol: $Q$ |
| Current              | The rate of flow of electric charge (i.e. speed). Calculated by dividing the size of the charge by the time. Symbol: $I$  |
| Potential difference | Also known as voltage, or p.d.. The potential difference is a measure of how much work is done per coulomb of charge.   |
| Resistance           | Resistance determines the size of the current for a particular potential difference.  |
| Equation             | Meanings of terms in equation   |
| $Q = It$             | $Q = \text{charge flow (coulombs, C)}$<br>$I = \text{current (amperes, A)}$<br>$t = \text{time (seconds, s)}$   |
| $V = IR$             | $V = \text{potential difference (volts, V)}$<br>$I = \text{current (amperes, A)}$<br>$R = \text{resistance (ohms, } \Omega \text{)}$  |

|  |                   |  |            |
|--|-------------------|--|------------|
|  | switch (open)     |  | bulb       |
|  | switch (closed)   |  | fuse       |
|  | cell              |  | voltmeter  |
|  | battery           |  | ammeter    |
|  | diode             |  | thermistor |
|  | resistor          |  | LDR        |
|  | variable resistor |  |            |
|  | LED               |  |            |

Look how the voltmeters are added **across** the components to measure the potential difference across them.

Yes, you need to learn these symbols.

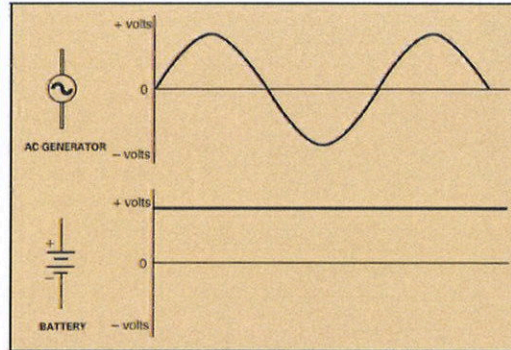


# Physics Knowledge Organiser

## Electricity in the home

### Direct and alternating potential difference

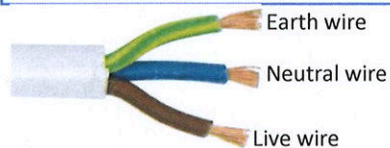
The flow of charge (current) in a circuit can travel in one direction around the circuit only. This is due to a **direct** supply of potential difference, also known as dc. Cells and batteries provide a direct potential difference. However, it is possible for the direction of the current to change back and forth in a circuit. This happens when there the supply provides an **alternating** potential difference – also known as ac. This means the p.d. is constantly switching from positive to negative, which you can see if you measure the p.d. and produce an image of it on an **oscilloscope**, as the diagram shows. The rate at which the p.d. switches from positive to negative is called the **frequency** of the supply. The bottom image, since the supply is a battery, shows a direct potential difference.



### Mains electricity

**Mains electricity** (the supply into your house/school etc. that comes through the plugs) is an ac supply. In the UK, we have a supply with a p.d. of about 230V, and the frequency is 50 Hz.

| Wire in three-core cable | Colour code of the insulation | Function   |
|--------------------------|-------------------------------|--|
| Live wire                | Brown                         | Carries the alternating p.d. from the supply to the appliance  |
| Neutral wire             | Blue                          | Completes the circuit. The neutral wire is at 0 V (earth potential).   |
| Earth wire               | Yellow and green stripes      | Earth wires are at 0 V. They are safety wires, and only carry a current if there is a fault and the appliance has become live (electrified). |



| Key Terms        | Definitions  |
|------------------|--|
| Direct p.d.      | A supply where the potential difference is fixed at a certain value, so the current flows in one direction only    |
| Alternating p.d. | A supply where the p.d. switches between positive and negative, reversing the direction of the current frequently. |
| Frequency        | The number of times the p.d. reverses direction every second. Measured in Hertz (Hz).                              |

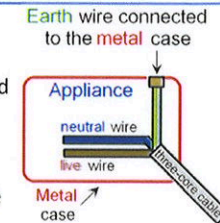
### The national grid

The national grid connects power stations to consumers of the power – like you. It consists of a network of cables (i.e. power lines) and **transformers**. There are two types of transformers; together they improve the efficiency of the energy transfer from power station to homes and schools etc.:

1. Step-up transformers **increase** the p.d. from the power station to the transmission cables. This reduces the current so less energy is lost as heat.
2. Step-down transformers **decrease** the p.d. from the cables to a much lower value (230V, generally) for domestic use. This increases the current to suit electrical appliances used at home.

### DANGER (and safety)

The earth wire carries current to the ground (literally, earth). This makes circuits safer because if there is a fault, it conducts the current to the ground rather than making the appliance 'live'. Appliances become live if the live wire touches the case. This is particularly a problem with metal-cased appliances, like cookers or toasters.



The live wire is the most dangerous one, since it is at 230 V. It should never touch the earth wire (unless the insulation is between them, of course!), because this would make a complete circuit from your mains supply to the ground (earth). A shock or fire would be highly likely.

Even if a circuit is switched off (i.e. the switch is **open**), the live wire can still be dangerous. If you touch it, you may complete a circuit between the live wire and the earth (because you'll be standing on the floor), so you get a shock.



## Physics Knowledge Organiser

### Power

#### Power

You should recall that power is **the rate of energy transfer**, or the rate at which work is done. In electrical components, including any electrical appliance, the power relates to the potential difference across the component and the current through it. If either p.d. or current increases, the power increases. In other words, the rate of energy transfer increases. This should be clear from the first equation.

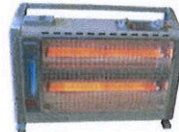
The second equation also finds the power. The equation comes from substituting in  $V = IR$ . The second equation is useful if you don't know the p.d. across a component.

#### Energy transfers in electrical appliances

The whole point of electrical appliances is to transfer energy. The electrical potential energy from the supply is transferred to something useful – such as light and sound in your TV. The other way of saying this is that **work is done** when **charge flows** in a circuit.

Some examples of energy transfers in electrical appliances:

- In your mobile phone, electrical potential energy from the dc supply (the battery) is transferred to light, sound and thermal energy. This means the energy from the battery is **dissipated** to the surroundings.
- A washing machine transfers electrical potential energy from the ac mains supply to kinetic energy in the electric motor (that's why it spins), along with heat. Eventually, all the energy of the input is dissipated to the surroundings.
- An electric heater transfers the electrical potential energy of the supply to thermal energy. The energy stored in the supply ends up stored in the air, the walls, the floor and so on around the heater: stored in the heat of the materials.



The amount of energy transferred by an appliance depends on the **power** of the appliance and the **time** it is switched on for. To find the amount of energy transferred, simply multiply the power of the appliance by the time it is on for (see third equation).

Furthermore, since p.d. is a measure of how much work is done per coulomb of charge, you can find out how much work is done (aka energy transferred) by a circuit by multiplying the charge flow by the p.d. (see fourth equation).

| Key Terms | Definitions   |
|-----------|---|
| Power     | The rate of energy transfer. In electrical components, the power is found by multiplying p.d. by current.                                   |
| Work      | Transfer of energy.   |
| Appliance | Any device that transfers electrical energy to other forms. The supply of electrical energy can be a cell, battery, or the mains ac supply. |

| Equation      | Meanings of terms in equation   |
|---------------|---|
| * $P = V I$   | $P = \text{power (watts, W)}$<br>$V = \text{potential difference (volts, V)}$<br>$I = \text{current (amps, A)}$                       |
| * $P = I^2 R$ | $P = \text{power (watts, W)}$<br>$I = \text{current (amps, A)}$<br>$R = \text{resistance (ohms, } \Omega \text{)}$                    |
| * $E = P t$   | $E = \text{energy transferred (joules, J)}$<br>$P = \text{power (watts, W)}$<br>$t = \text{time (seconds, s)}$                        |
| * $E = Q V$   | $E = \text{energy transferred (joules, J)}$<br>$Q = \text{charge flow (coulombs, C)}$<br>$V = \text{potential difference (volts, V)}$ |

#### High power, low power

The power of an appliance determines how much energy is transferred in a given length of time. If an appliance has a high power (e.g. a washing machine), it transfers lots of energy in a given time. If it has a low power (e.g. a lamp), it doesn't transfer much energy in a given time, in comparison.

The other way of looking at it is how long the appliance takes to transfer a given amount of energy, e.g. 1000 J. A washing machine will transfer the energy in a very short length of time, whereas a lamp will take much longer to transfer this energy.



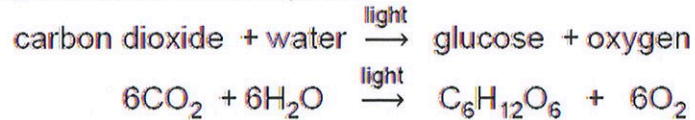
## Biology Knowledge Organiser

### Photosynthesis

#### Photosynthesis.

For us, it is a very good thing that photosynthesis evolved. The process of photosynthesis, carried out by plants and algae, is at the foot of every food chain. It captures light energy from the sun and redistributes it to chemical potential energy – we can make use of chemical potential energy: that's what our food contains! Since photosynthesis involves the transfer of light energy to chemical potential energy in cells, it is an **endothermic** reaction.

The reaction can be shown in these equations:



The oxygen released by photosynthesis has built up in the atmosphere over millions of years – again, good news for us, since we require oxygen for respiration, just like all living organisms.

Photosynthesis occurs in the **chloroplasts** of plant cells. Simple molecules like carbon dioxide and water can't be used as food. However, glucose and other more complex molecules can – so you can think of photosynthesis as a reaction that produces food.

#### Using The Glucose From Photosynthesis.

Obviously, plants didn't evolve simply for our benefit. They carry out photosynthesis to meet their own needs. The glucose produced in photosynthesis can be:

- Used in **respiration** in the cells of the plant/algae
- Converted into **starch** for **storage**. Starch is good for storage as it is *insoluble*, so it doesn't affect the osmosis occurring in the plant, unlike glucose.
- Used to produce **fats or oils (lipids)** for **storage**. This is particularly noticeable in seeds and nuts.
- Used to produce **cellulose**, which is a component of the cell wall. Cellulose strengthens the cell wall.
- Used to produce **amino acids**, which in turn are used to **synthesise proteins** (in the ribosomes). To produce amino acids, plants also require **nitrates** from the soil.

Simple lab tests can be used to identify starch, glucose and protein. Starch turns **iodine** a blue-black colour. Glucose turns **Benedict's solution** orange-red when heated with it. Proteins turn **Biuret's reagent** purple.

| Key Terms       | Definitions  |
|-----------------|--|
| Photosynthesis  | The endothermic reaction that transfers light energy to chemical potential energy. In it, simple molecules (CO <sub>2</sub> and H <sub>2</sub> O) are converted into more complex molecules (glucose) that can be used for food. |
| Nitrates        | Ions containing nitrogen and oxygen. These are found in the soil; plants need nitrates to produce amino acids.   |
| Rate            | As always, rate means how quickly something happens.   |
| Light intensity | The amount/strength of light. Use this term instead of 'amount of light'.  |
| Chlorophyll     | The green pigment in leaves that absorbs light for photosynthesis. Chlorophyll is found in <b>chloroplasts</b> .   |

#### The Rate Of Photosynthesis.

The following factors affect the rate of photosynthesis:

- **Temperature:** because all chemical reactions speed up as the temperature increases. However, as photosynthesis is controlled by enzymes, too high a temperature prevents photosynthesis (more on this in the metabolism section).
- **Carbon dioxide concentration:** the higher the concentration of CO<sub>2</sub> in the air, the more is available for photosynthesis, so the rate of photosynthesis increases as concentration increases.
- **Light intensity:** as the equation shows, photosynthesis requires light energy. So, the higher the light intensity, the higher the rate of photosynthesis.
- **Amount of chlorophyll:** more chlorophyll means more light can be absorbed. Some leaves have pale parts, as you may have seen, due to a lack of chlorophyll. The rate of photosynthesis is obviously much lower in the pale parts compared to the deep green parts.

**HT:** at any given time, any one of these factors may be **limiting** the rate of photosynthesis. This can be shown on graphs – see example. When it comes to light intensity, it varies with distance according to an **inverse square law**:

$$\text{light intensity} = \frac{1}{\text{distance from source}^2}$$

In commercial growing of plants (e.g. tomatoes in a greenhouse), the conditions are optimised to maximise the rate of photosynthesis and obtain the highest profit.

