


















**Stafford Manor**  
High School

# **Year 11 Autumn Term 1**

## **Core Knowledge**

-  Art
-  Biology
-  Business
-  Chemistry
-  Design Technology
-  English
-  French
-  Geography
-  History
-  Information Technology
-  Maths
-  Performing Arts
-  PE
-  Physics
-  Textiles



## 1. Describe why presentation is important.

- How we present work can demonstrate professionalism.
- We present our analysis in a way that is appropriate for the different medias used.

## 2. What must be included in a successful record board?

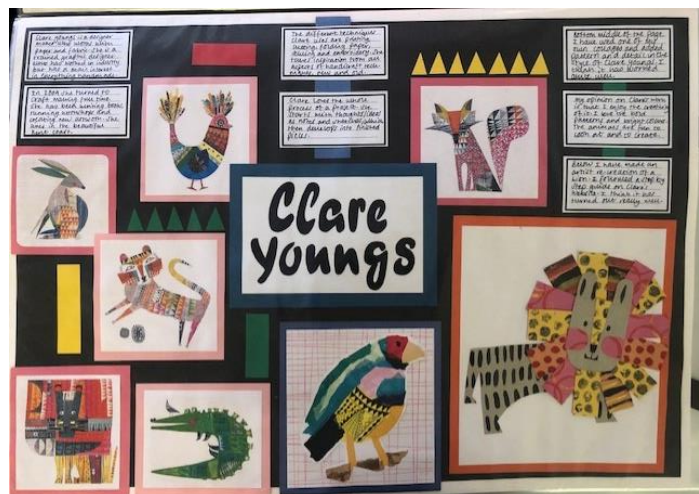
- A title of the relevant board.
- A selection of at least x5 high quality drawings in different medias.
- Annotations based on the drawings. Always using the guidance booklet to assist you.

## 3. Why is it important to analyse artists?

- We write and learn about artists so we can better understand the world of art and learn from what others have done.

## 4. What must be included in an artist research page:

- A title which is the artist's name.
- Images of the artist's work.
- A copy of the artist's work which is called an artist recreation.
- Information about the artist.
- A background that links with the artist.



## 5. Key word definitions:

- Composition:** How different elements are combined.
- Contemporary:** Art made today by living artists.
- Contour:** the artist outlines the shape / mass of an object.
- Curling:** Strips of paper that are rolled/looped to create shapes
- Geometric:** Using shapes to create a piece of art
- Overlapping:** Placing objects over one another to create depth.
- Perspective:** Gives art a 3D look.
- Realistic:** Subjects painted from everyday life.
- Shading:** Darkening of a drawing to show depth.
- Soft edged:** Indicates a gradual or smooth transition.
- Symmetry:** Involves mirroring of portions of an image.

# BIOLOGY

## 1. What is Photosynthesis?

- It is an endothermic chemical reaction, where plants **absorb** energy from the sun and produce Glucose.

## 2. What are the equations for Photosynthesis?

- Carbon Dioxide + Water → Glucose + Oxygen
- $6\text{CO}_2 + 6\text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2$

## 3. How are leaves adapted?

- Chloroplasts** – contain chlorophyll to absorb light energy for Photosynthesis.
- Large Surface area** – To absorb a lot of light energy.
- Stomata** – To allow for gas exchange.
- Thin** - allow for fast movement of gases into the leaf.
- Waxy cuticle on surface** - prevent water loss.

## 4. What factors affect Photosynthesis?

- A **limiting factor** is something that slows down or stops Photosynthesis regardless of the abundance of other factors required.
- The limiting factors for Photosynthesis are;
  - Carbon Dioxide
  - Temperature
  - Light intensity.

## 5. Light intensity and photosynthesis

- Algal balls** in glass bottle → **indicator** → **equal distances** from light source → **colour change**.
- The colour in the bottle indicates the pH of the solution. During photosynthesis carbon dioxide is used up. When there is no carbon dioxide in a solution the indicator will turn purple, this indicates it is an alkaline solution.
- Therefore, the solution that is most strongly alkali is the solution where most carbon dioxide has been used up, therefore where most photosynthesis has happened.

## 6. Transportation tissues

- Root Hair cell** – Large surface area, thin walls, many mitochondria. For absorption of minerals and water.
- Xylem** – Transports water from the roots to the leaves.
- Phloem** – Transports sucrose up and down the plant.

# BUSINESS

## 1. What is product differentiation?

- When a business makes a product stand out from rival products.

## 2. What are the four stages of the business life cycle?

- Introduction
- Growth
- Maturity
- Decline

## 3. What strategies can a business use to set a price?

- Penetration (setting a low price)
- Skimming (setting a high price to recoup research costs)
- Competition based (setting a price based on rival prices)

## 4. What influences pricing strategies

- Technology
- Competition
- Market Segments
- Product Life Cycle

## 5. What are three methods of promotion?

- Mass media (e.g. television, newspapers)
- Sponsorship
- Product Trials

## 6. What is place?

- It is not location
- It is about how the product gets to the consumer and which other businesses it needs to pass through

## 7. How can you build a competitive advantage?

- Product – unique features, good quality
- Price – selling at the cheapest price in the market
- Promotion – creating a memorable advertising campaign
- Place – available in more stores than rivals

# CHEMISTRY

## 1. What are the names of groups 1, 7 and 0?

**Group 1:** The Alkali Metals

**Group 7:** The Halogens

**Group 0:** The Noble Gases

## 2. What are the physical properties of the alkali metals?

🌀 **Soft:** Easy to cut

🌀 **Low melting points:** Will melt at low temperatures.

## 3. What do you see when lithium, sodium and potassium are added to water?

### Similarities:

🌀 They all **fizz**, **float** and **move** on water.

### Differences:

🌀 Potassium moves **faster**, fizzes **more** and sets on fire with a **lilac flame**.

## 4. Word equations for alkali metals and water.

🌀 Lithium + water → lithium **hydroxide** + **hydrogen**

🌀 Sodium + water → sodium **hydroxide** + **hydrogen**

## 5. Why are noble gases inert?

🌀 They have a **full outer shell**.

🌀 They **don't** need to **lose/gain any electrons**.

## 6. What are helium, argon and krypton used for?

🌀 **Helium:** Air balloons

🌀 **Argon:** Wine barrels / light bulbs / welding.

🌀 **Krypton:** Flash Photography

## 7. What is the colour and state of chlorine, bromine and astatine?

**Chlorine:** **Green Gas**

**Bromine:** **Brown Liquid**

**Iodine:** **Black Solid**

## 8. What is the test for chlorine gas?

🌀 **Bleaches damp** blue **litmus paper**

## 9. Word equations for halide reactions

🌀 There is only one product in metal – halide reactions and hydrogen – halide reactions. All you need to do is change the ending to *ide*:

○ Lithium + bromine → Lithium brom**ide**

○ Hydrogen + iodine → Hydrogen Iod**ide**

## 10. What do you see during displacement reactions?

🌀 Bromine formed: Colourless to **orange**

🌀 Iodine formed: Colourless to **brown**

## 11. What does REDOX mean?

🌀 A reaction where **reduction** and **oxidation** are **both** occurring.

# DESIGN TECHNOLOGY



## 1. What do I need to do for each assessment objective?

- 🔧 **AO1.A:** Identify and investigate design possibilities. (10 marks)
- 🔧 **AO1.B:** Produce a design brief and specification. (10 marks)
- 🔧 **AO2.C:** Generate design ideas (20 marks)
- 🔧 **AO2.D:** Develop design ideas (20 marks)
- 🔧 **AO2.E:** Realising design ideas (20 marks)
- 🔧 **AO3.F:** Analysing and evaluating (20 marks)

## 2. How do I get 10 marks in section A – design possibilities?

- 🔧 Identify design possibilities.
- 🔧 Investigate client needs and wants.
- 🔧 Investigate factors including economic and social challenges.
- 🔧 Use the work of others (past and/or present) to form ideas.
- 🔧 Use a range of research techniques (primary/secondary) in order to draw accurate conclusions.
- 🔧 Investigate throughout their project to help inform decisions.

## 3. How do I get 10 marks in section C – design ideas?

- 🔧 Demonstrate flair and originality.
- 🔧 Take risks with your design.
- 🔧 Use a variety of techniques to communicate.
- 🔧 Be imaginative in your approach by experimenting with different ideas and possibilities that avoid design fixation.
- 🔧 The highest marks will be for generating ideas that are **different** to the work of the majority of your peers.

**DESIGN IDEAS: Oscar Niemeyer - Architect**

The curved dome and entrance of the Oscar Niemeyer Foundation building influenced this light. This light would be able to give light to a specific area as a secondary light source.

This Oscar Niemeyer Museum lamp would need to be developed further with another function to make it appropriate for a table light.

**SUMMARY:** The majority of my designs for architecture I by Niemeyer's style of curves and abstract forms have greatly

**DESIGN IDEAS: Streamlined design - Movement**

The shape represented in this drawing was used as a main repeating part in this lamp. The color scheme was used to make the lamp look like a streamlined design.

This is a good example of the streamlined design from this motorcycle which I have incorporated in several of my designs.

I used the soft streamlined design from this motorcycle in my design for a triangular, calm look.

**DESIGN IDEAS: Jean Prouvé - Designer**

I like the chairs for their combination contrast with the sleek metal bars and tried to convey a similar feel in my design.

This stool inspired this similar light with its triangular looking legs. I also kept the flat top to help project the light.

I used this building's cross section and represented it in my design while also adding Prouvé's signature shape.

This design is different to the rest as it has a slimmer feel. It could be a good desk light if I could make the head/moveable.

I wanted to use the 'Bauhaus' most interesting component in a design make an attractive task light.

**SUMMARY:** I like the outcome of these Jean Prouvé inspired designs and the interesting shapes and styles that have been drawn. There are several designs here that I think would be appropriate for an ambient or task light indicated in the design brief.



# ENGLISH

## 1. What is required in question 1 of the AQA exam paper?

- 🔗 List 4 things that link to the question

## 2. What is required in question 2 of the AQA exam paper?

- 🔗 Analyse the way language is used to describe a feature in the specific area of the text.

## 3. What is required in question 3 of the AQA exam paper?

- 🔗 Analyse the way structure has been used to interest the reader in the story or the section of the story provided

## 4. What is required in question 4 of the AQA exam paper?

- 🔗 Evaluate how far you agree with the different elements of the statement put forward.

## 5. Key word definitions:

- 🔗 **Allegory:** a story, poem, or picture that can be interpreted to reveal a hidden meaning.
- 🔗 **Analepsis:** a literary device in narrative, in which a past event is narrated at a point later than its chronological place in a story.
- 🔗 **Anti-hero:** a central character in a story, film, or drama who lacks conventional heroic attributes.
- 🔗 **Morality tale:** a story or narrative from which one can derive a moral about right and wrong.
- 🔗 **Motif:** a repeated idea within a work of literature that has symbolic significance to the story.
- 🔗 **Non-chronological narrative:** a narrative technique in which the storyline is told out of chronological order.
- 🔗 **Omniscient narrator:** An 'all-knowing' kind of narrator very commonly found in works of fiction written as third-person.
- 🔗 **Prolepsis:** the representation of a thing as existing before it actually does or did so, as in he was a dead man when he entered.
- 🔗 **Symbolism:** a tool of figurative language where an image is used to represent something other than its literal meaning.
- 🔗 **The sublime:** use of language and description that excites the senses of the reader.

## 6. Key Characters in "A Christmas Carol":

- 🔗 **Ebenezer Scrooge:** A selfish man who transforms into a charitable philanthropist.
- 🔗 **Fred:** Scrooge's nephew.
- 🔗 **Jacob Marley:** Scrooge's dead partner and ghost.
- 🔗 **Bob Cratchit:** Scrooge's poor clerk.
- 🔗 **Tiny Tim:** Bob's ill son.
- 🔗 **Mrs Cratchit:** Bob's wife

## 6. Key Characters in "A Christmas Carol":

- ❖ **The Ghost of Christmas Past:** A strange combination of young and old, wearing white robes and looking like a candle.
- ❖ **The Ghost of Christmas Present:** A portly, jovial gentleman surrounded by a warm glow.
- ❖ **The Ghost of Christmas Yet To Come:** A robed and hooded spirit who confronts Scrooge with his own tombstone.

## 7. "A Christmas Carol" Key Quotes:

- ❖ "Decrease the surplus population"
- ❖ "Hard and sharp as flint, from which no steel had ever struck out generous fire; secret, and self-contained, and solitary as an oyster."
- ❖ "I wear the chain I forged in life"
- ❖ "External heat and cold had little influence on Scrooge. No warmth could warm, no wintry weather chill him."
- ❖ "What Idol has replaced you?" "A golden one"
- ❖ "His wealth is of no use to him. He don't do any good with it"
- ❖ "Scrooge was the Ogre of the family. The mention of his name cast a dark shadow on the party."
- ❖ "This boy is Ignorance. This girl is Want"
- ❖ "the relentless Ghost pinioned him in both his arms, and forced him to observe what happened next."
- ❖ "Assure me that I yet may change these shadows you have shown me, by an altered life!"
- ❖ "I will honour Christmas in my heart"
- ❖ "Scrooge was better than his word. He did it all, and infinitely more; and to Tiny Tim, who did not die, he was a second father."

## 8. What are the themes in "A Christmas Carol"?

- |                  |                         |
|------------------|-------------------------|
| ❖ Greed          | ❖ The passage of time   |
| ❖ Predestination | ❖ Family                |
| ❖ Free will      | ❖ Guilt                 |
| ❖ Poverty        | ❖ Generosity            |
| ❖ Class          | ❖ Redemption            |
| ❖ Stratification | ❖ Capitalism            |
| ❖ Isolation      | ❖ Social responsibility |
| ❖ Transformation | ❖ Justice               |
|                  | ❖ The supernatural      |

## 9. What happens in each stave in "A Christmas Carol"?

- ❖ **Stave 1:** Scrooge refuses to embrace Christmas and give to the poor. Jacob Marley's ghost visits Scrooge and tells him he will be visited by 3 ghosts.
- ❖ **Stave 2:** The Ghost of Christmas Past visits and together they visit Scrooge's past Christmases.
- ❖ **Stave 3:** The Ghost of Christmas Present visits Scrooge and takes him to see the home of Bob Cratchit's family and Fred.
- ❖ **Stave 4:** The Ghost of Christmas Yet to Come visits and shows Scrooge awful visions of the future. Scrooge vows to change.
- ❖ **Stave 5:** Scrooge is grateful for his second chance and redeems himself.



# FRENCH

## 1. How can I describe charity? Les associations caritatives!

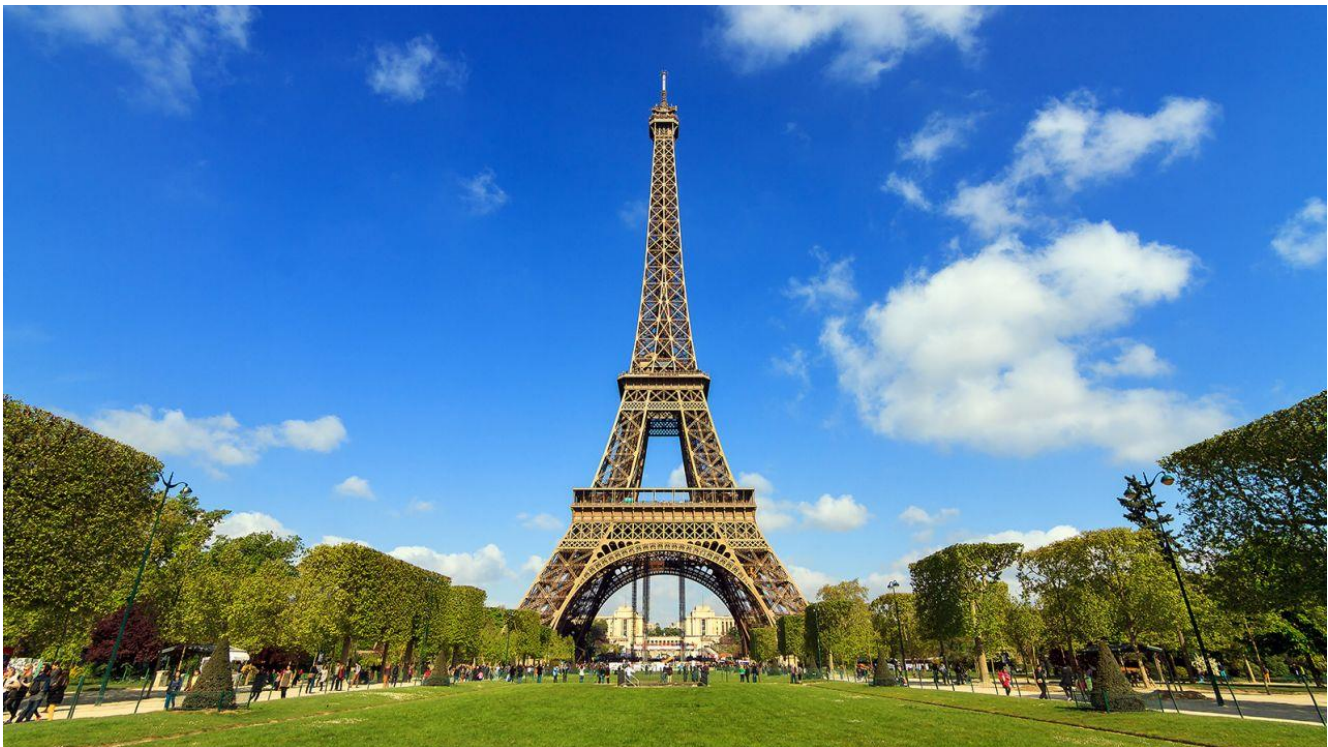
🌀 <b>à l'abri (m)</b> : in a safe place	🌀 <b>l'injustice (f)</b> : injustice
🌀 <b>l'association caritative (f)</b> : charity	🌀 <b>lutter</b> : to fight, struggle
🌀 <b>combattre</b> : to combat	🌀 <b>malade</b> : ill
🌀 <b>contre</b> : against	🌀 <b>la maladie</b> : illness, disease
🌀 <b>créer</b> : to create	🌀 <b>le médecin</b> : doctor
🌀 <b>le don</b> : donation	🌀 <b>les médicaments (m)</b> : medicine
🌀 <b>donner</b> : to give	🌀 <b>la misère</b> : misery/poverty
🌀 <b>l'égalité (f)</b> : equality	🌀 <b>ne ... personne</b> : nobody
🌀 <b>être fondé(e)</b> : to be created	🌀 <b>la nourriture</b> : food
🌀 <b>l'exclusion (f)</b> : exclusion	🌀 <b>la pauvreté</b> : poverty
🌀 <b>la faim</b> : hunger	🌀 <b>protéger</b> : to protect
🌀 <b>faire du bénévolat</b> : to do voluntary work	🌀 <b>la rue</b> : street
🌀 <b>fonder</b> : to found	🌀 <b>le sang</b> : blood
🌀 <b>les gens</b> : people	🌀 <b>le SIDA</b> : AIDS
🌀 <b>l'inégalité (f)</b> : inequality	🌀 <b>le test de dépistage</b> : screening test
	🌀 <b>tout le monde</b> : everybody
	🌀 <b>vouloir</b> : to want

## 2. How can I describe voluntary work? Mon travail bénévole!

🌀 <b>Accueillir</b> : to welcome	🌀 <b>j'aimerais</b> : I would like
🌀 <b>Alimentaire</b> : dietary	🌀 <b>je voudrais</b> : I would like
🌀 <b>Apporter</b> : to bring	🌀 <b>à mi-temps</b> : part-time
🌀 <b>Assez</b> : quite, enough	🌀 <b>le monde</b> : world
🌀 <b>Autour</b> : around	🌀 <b>la nourriture</b> : food
🌀 <b>avoir les moyens (m)</b> : to be able to afford	🌀 <b>pauvre</b> : poor
🌀 <b>comprendre</b> : to understand	🌀 <b>à plein-temps</b> : full-time
🌀 <b>démuni(e)</b> : in need	🌀 <b>propager</b> : to spread
🌀 <b>dur(e)</b> : hard	🌀 <b>le repas</b> : meal
🌀 <b>l'eau potable (f)</b> : drinking water	🌀 <b>soigner</b> : to treat / to care for
🌀 <b>essayer de</b> : to try	🌀 <b>travailler</b> : to work
	🌀 <b>triste</b> : sad
	🌀 <b>voyager</b> : to travel

### 3. How can I describe lifestyle changes! Mon mode de vie avant et maintenant!

- |   |   |
|---|---|
| 🔴 <b>Accro</b> : addicted / hooked                | 🔴 <b>faire attention à</b> : to be careful of |
| 🔴 <b>avoir confiance en soi</b> : to be confident | 🔴 <b>fumer</b> : to smoke                     |
| 🔴 <b>avoir peur de</b> : to be scared of          | 🔴 <b>l'habitude</b> (f): habit                |
| 🔴 <b>dépendant(e)</b> : addicted                  | 🔴 <b>l'odeur</b> (f): smell                   |
| 🔴 <b>se détendre</b> : to relax                   | 🔴 <b>perdre du poids</b> : to lose weight     |
| 🔴 <b>devenir</b> : to become                      | 🔴 <b>plaire</b> : to please                   |
| 🔴 <b>les devoirs</b> (m): homework                | 🔴 <b>le poumon</b> : lung                     |
| 🔴 <b>dormir</b> : to sleep                        | 🔴 <b>se relaxer</b> : to relax                |
| 🔴 <b>la drogue</b> : drug                         | 🔴 <b>la respiration</b> : breathing           |
| 🔴 <b>se droguer</b> : to take drugs               | 🔴 <b>le sommeil</b> : sleep                   |
| 🔴 <b>s'entraîner</b> : to train                   | 🔴 <b>stressé(e)</b> : stressed                |
| 🔴 <b>être à l'aise</b> (f): to be comfortable     | 🔴 <b>le tabac</b> : smoking / tobacco         |



# GEOGRAPHY

## 1. How do we measure a country's development?

- |  |   |
|--|---|
| <ul style="list-style-type: none"><li>Life expectancy</li><li>Birth rate</li><li>Death rate</li><li>Literacy rate</li><li>Gross domestic product</li></ul> | <ul style="list-style-type: none"><li>Gross national income</li><li>Access to clean water</li><li>Number of people per doctor</li><li>Infant mortality rate</li></ul> |
|--|---|

## 2. Explain how you measure development.

- Demographic transition model, stage 1 to Stage 5

## 3. Describe how population pyramids help to understand development.

The dependency ratio	Population demographic of countries	Gender life expectancy
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## 4. Explain the causes of uneven development.

- |  |  |   |
|--|--|---|
| <ul style="list-style-type: none"><li>Landlocked countries</li><li>Climate</li><li>Extreme weather</li></ul> | <ul style="list-style-type: none"><li>Lack of safe water</li><li>Trade</li><li>Colonialism</li><li>Imbalance between rich and poor</li></ul> | <ul style="list-style-type: none"><li>Disparities in health</li><li>Malaria</li><li>Migration</li></ul> |
|--|--|---|

## 5. Describe the strategies used to reduce the development gap.

- |   |  |   |
|---|--|---|
| <ul style="list-style-type: none"><li>Investment</li><li>Industrial development</li><li>Tourism</li></ul> | <ul style="list-style-type: none"><li>Aid</li><li>Intermediate technology</li><li>Fair trade</li></ul> | <ul style="list-style-type: none"><li>Loans and debt</li><li>Debt relief</li><li>Micro-finance.</li></ul> |
|---|--|---|

## 6. Describe Nigeria as a newly emerging economy.

- Neighbouring countries:** Benin, Cameroon, Chad, Niger.
- Political context:** United Nations, African Union, Commonwealth.
- Social context:** Yoruba tribe, Hausa tribe and Fulani tribe
- Religion:** Christianity and Islam,
- Regional variations:** Urban vs Rural
- Cultural context:** Music, cinema (Bollywood), Literature, sport,
- Environmental context:** Dry North, Tropical South.

## 7. Explain how transnational corporations have aided Nigeria.

- Industrial revolution
- Primary, secondary, tertiary and quaternary industries.
- Manufacturing of processed foods, textiles, leather items, soap and detergents
- Job creation: SHELL, UNILEVER
- Development of infrastructure,
- Investment in local companies.

## 8. Describe the environmental impacts of economic growth.

- ❖ Oil spills
- ❖ Toxic fumes and waste
- ❖ Damage to local environments and biodiversity
- ❖ Soil degradation
- ❖ Slums
- ❖ Fossil fuels
- ❖ Increased air, noise and visual pollution
- ❖ Deforestation
- ❖ Mining and oil extraction.

## 9. What role has international aid played in Nigeria?

- ❖ Aid: USA, UK, World Bank, charities and NGOs (non-governmental organisations),
- ❖ Emergency aid and developmental aid
- ❖ Water aid
- ❖ Aduwan Health Centre: Treats HIV, educates local women, immunises children against polio.

## 10. How has economic development improved the quality of life in Nigeria?

- ❖ Reliable, better paid jobs
- ❖ Higher disposable income
- ❖ Improvements in infrastructure such as roads
- ❖ Better access to safe water and sanitation
- ❖ Access to better diet
- ❖ Better education
- ❖ Reliable electricity supply
- ❖ Better quality health care.



# HISTORY

## 1. How was America originally split?

- 🍷 Britain had controlled the 13 colonies on the east coast of America.
- 🍷 The rest of America was divided between France and Spain and unclaimed territories.
- 🍷 America was full of hundreds of Native tribes that either cooperated or clashed with European settlers.

## 2. What happened when America declared independence?

- 🍷 In 1776, American colonists declared their independence from Britain.
- 🍷 In 1783, Britain lost the War of Independence.
- 🍷 In 1789, George Washington was the first president of the USA and they had agreed on a system of government.

## 3. Key word definitions:

- 🍷 **Constitution** – the rules about how the country should be run.
- 🍷 **Congress** – made up of people elected from each state. It passes laws.
- 🍷 **States** – areas of the USA. They can make their own laws so long as these keep to the Constitution.
- 🍷 **Supreme Court** – this court hears the nation's most difficult law cases and decides if new laws fitted with the Constitution.
- 🍷 **Territories** – has too few people to make up a state. They could become a state when its population was large enough.

## 4. How did expansion happen in America?

- 🍷 1783: The British transferred 230 million acres of Indian land to the US.
- 🍷 1794: The US army defeated the northwest Indians at the Battle of Fallen Timbers.
- 🍷 1795: The Indians were forced to accept the Treaty of Greenville.
- 🍷 By 1837, the NW & SW territories had been turned into states.

## 5. What happened to the land?

- 🍷 Jefferson believed democracy would succeed with farmers who owned 100 acres of land.
- 🍷 The government divided the territories into 640 acres, with each acre costing \$1.
- 🍷 Many squatted on the land and hoped to raise the money.
- 🍷 Some land speculators bought large amounts of land from the government and sold smaller plots at a high price.
- 🍷 The USA bought a vast area for land from the French in 1803 (the Louisiana Purchase), which cost Jefferson \$15 million.



## 6. Who were Lewis and Clark?

- ❖ Lewis and Clark were explorers who went by land to the Pacific coast and opened the door to the west.
- ❖ Lewis and Clark's expedition led other to **hunt beaver** and **sell furs** to Europe.
- ❖ Lewis and Clark's expedition opened new trade routes with Indians.

## 7. How were the Indians exploited?

- ❖ Indians were made into slaves in the new southern territories.
- ❖ The slaves were made to work in the plantations.
- ❖ There were few slaves in the North – the land was not suitable for plantations. It eventually died out.

## 8. What were slaves allowed to do?

- ❖ Enslaved people could not vote, but they were part of the state's population.
- ❖ The Constitution said that each state's voting power depended on how many people lived there.
- ❖ As a compromise, the Constitution agreed that slave should count as three-fifths of a person.

## 9. How did slavery spread?

- ❖ The 'Louisiana Purchase' meant slavery could spread west of the River Mississippi after 1803.
- ❖ Slavery spread rapidly across the 'Cotton Kingdom'.
- ❖ Slavery grew due to the invention of the 'cotton gin' and the 'pushing system'.

## 10. What were the names of the five civilised tribes?

Creek	Chickasaw	Choctaw	Seminole	Cherokee.
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## 11. What was the Indian Removal Act?

- ❖ The Indian Removal Act set aside an Indian Territory for Indians from the East.
- ❖ Thousands of Indians moved, but many resisted.
- ❖ Thousands of white settlers were encouraged to move onto the Indian land.

## 21. How did the Seminole chiefs fight back?

- ❖ Some Seminole chiefs went to war to defend their lands.
- ❖ The Seminole Wars lasted from 1835 to 1842.
- ❖ By 1858, only 200 Seminoles were left in Florida.

## 22. How did the Creeks fight back?

- ❖ Creeks began stealing livestock and crops, as well as committing arson and murder.
- ❖ In 1836, the US government ordered the removal of any remaining Creeks. This led to 18,000 Cherokee to march to the Indian Territory.
- ❖ Over 4000 died of cold, hunger or disease on the 'Trail of Tears'.
- ❖ By 1838, the 25 million acres of Indian land had been given to white settlement and slavery.



# INFORMATION TECHNOLOGY

## 1. What is a place holder?

- 🌀 Text that temporarily takes the place of the final data, allowing the document fields to be selected before the source file is available.

## 2. What is a field?

- 🌀 A category of information within a table (i.e. the column headings)

## 3. What is needed for your logo?

- 🌀 It must be contemporary and captivating.
- 🌀 Must have a colour palette that shows warmth.

## 4. What should be in your order system?

- 🌀 How much demand there is for different varieties of hot chocolate.
- 🌀 A list of names of customers that have placed orders.

## 5. What should be in your invoice system?

- 🌀 The invoices need to be accurate, understandable and professional.

## 6. What should be in your marketing letter?

- 🌀 A letter with an exclusive deal.
- 🌀 To be sent to customers that have spent over £120 in the last year.
- 🌀 They will be offered a 10% discount.

## 7. What software should I use for each task?

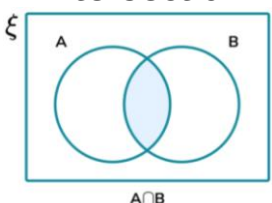
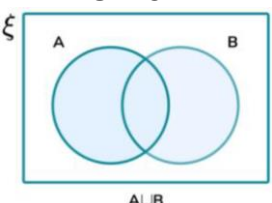
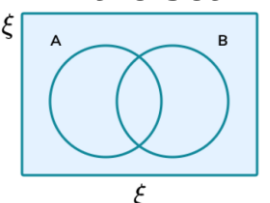
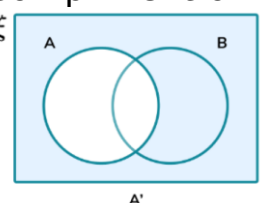
- 🌀 **Database:** Microsoft Access
- 🌀 **Spreadsheet:** Microsoft Excel
- 🌀 **Automated Document:** Microsoft Word
- 🌀 **Images/Logos:** Adobe Photoshop

# MATHS

## 1. Key word definitions:

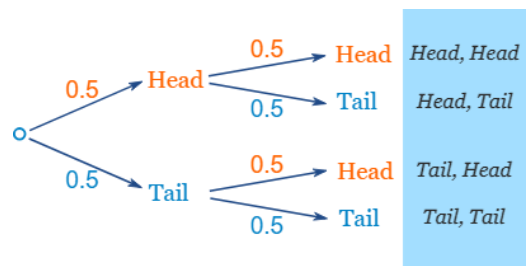
- 🌀 **Event:** Something you do e.g. roll a dice
- 🌀 **Outcome:** The result of an event e.g. get a six
- 🌀 **Random:** Everything has an equal chance
- 🌀 **Probability:** The chance of something happening

## 2. What do set notation – Venn diagrams show us?

Intersection	Union	Entire Set	Compliment of A
			
Elements in <b>A and B</b>	Elements in <b>A or B</b>	All Elements	Elements <b>not</b> in A

## 3. How do we use tree diagrams?

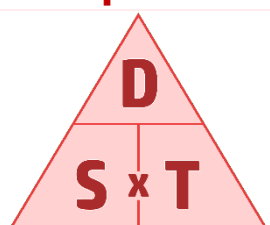
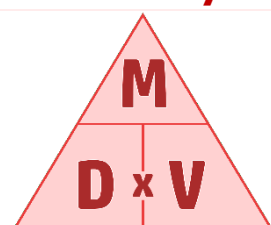
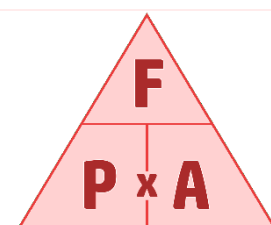
- 🌀 Tree diagrams calculate the probability of several outcomes along a path by multiplying.
- 🌀 Combine the probabilities of several paths by adding the probabilities.



## 4. How do we use multipliers?

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>🌀 <b>% of:</b> <i>find 45% of 30:</i> <ul style="list-style-type: none"> <li>○ <math>45 \div 100 = \mathbf{0.45}</math> (1)</li> <li>○ <math>30 \times \mathbf{0.45} = \mathbf{13.5}</math> (1)</li> </ul> </li> <li>🌀 <b>Increase:</b> <i>increase 30 by 45%:</i> <ul style="list-style-type: none"> <li>○ <math>(100 + 45) \div 100 = \mathbf{1.45}</math> (1)</li> <li>○ <math>30 \times \mathbf{1.45} = \mathbf{43.5}</math> (1)</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>🌀 <b>Decrease:</b> <i>decrease 30 by 45%:</i> <ul style="list-style-type: none"> <li>○ <math>(100 - 45) \div 100 = \mathbf{0.55}</math> (1)</li> <li>○ <math>30 \times \mathbf{0.55} = \mathbf{16.5}</math> (1)</li> </ul> </li> <li>🌀 <b>Reverse</b> <ul style="list-style-type: none"> <li>○ divide by the multiplier to go backwards</li> </ul> </li> </ul> |
|--|---|

## 5. What are the formula triangles for speed, density & pressure?

Speed	Density	Pressure
		

## 6. What is compound interest?

- 🌀 Use powers to repeat percentage increase or decreases.
- 🌀 e.g. £4000 invested at 1.5% for 6 years  $4000 \times 1.015^6$

# PERFORMING ARTS

## 1. How are the following techniques used in performances?

- ❖ **Comedy:** A light or humorous tone that depicts amusing incidents where the characters usually triumph over adversity.
- ❖ **Characterisation:** Creating a character through movement and dynamic choices
- ❖ **Naturalism:** A style of performance where actors and designers try to create the illusion that what is happening on stage is 'reality'.
- ❖ **Use of voice:** Adapting your voice to suit a character requirement. (Volume, tone, pitch pace, intonation).
- ❖ **Freeze Frame:** A silent and motionless depiction of a scene created by actors (plural).
- ❖ **Hot seating:** An in-depth questioning of a character
- ❖ **Thought tracking:** Internal thoughts of a character spoken aloud.
- ❖ **Physical Theatre:** Uses techniques such as movement, mime, gesture and dance instead of words.
- ❖ **Multi-role playing:** An actor plays multiple characters.
- ❖ **Blocking:** Deciding where an actor stands during a scene.
- ❖ **Fourth Wall:** An imaginary wall between the actor and the audience.

## 2. What is the theme for the new PSA?

- ❖ POWER!

## 3. What is An Inspector Calls about?

- ❖ The play is set in a fictional Midlands town called Brumley.
- ❖ The purpose of a play is to be seen / heard by a live audience.
- ❖ Through his play, 'An Inspector Calls', he encourages people to seize the opportunity given to them by the end of the war, to build a better, more caring society.
- ❖ Eva Smith and Daisy Renton are the same person.
- ❖ Eva Smith worked at Birling & Co then Milwards. It is implied that she worked as a prostitute when she was out of work (at the Palace Bar).
- ❖ Prostitutes were more commonly referred to as 'women of the town'.
- ❖ It is implied that Eric 'forces himself on Eva' / there is a lack of consent – he uses his social position to get what he wants. Think about the theme and POWER here
- ❖ Eva uses Mrs Birling's name at the women's charity because she thinks that she is more likely to get assistance if she appears to be a deserted wife.

#### 4. What is "Teachers" about?

- ❖ Three school leavers Salty, Hobby and Gail perform to the audience an account of their time in High School.
- ❖ It focuses on their time with Mr Nixon - their new Drama teacher - who ignites their passion for the stage with his idealism and belief that all children should be treated equally.
- ❖ The children mention that the names of the characters have been changed.
- ❖ Mr Nixon's real name is Mr Harrison, mentioned at the beginning.
- ❖ At the end of the play he leaves Whitewall High School to teach at St George's, another school with a better reputation.

#### 5. How do we use physical skills in performing arts?

- ❖ You will need to specify how the actor interprets the character through his use of **gestures, posture, walk, physical responses, facial expressions, position on the stage, special territories, stillness, use of space, set** and **personal equipment and props**.

#### 6. How do we use vocal skills in performing arts?

- ❖ You will need to specify how the actor interprets the character through their use of **tone** and **vocal tempo, accent, pitch, emphasis** on **words**, use of **pauses** to create **tension, pronunciation** and **constructiveness**.

#### 7. How do we use characterisation in performing arts?

- ❖ The character (or characters) in question will need to be discussed in terms of **age, social class, intent** and **motivation, background** and their **relationship** with the rest of the characters in the scene.

#### 8. How do we use interaction skills in performing arts?

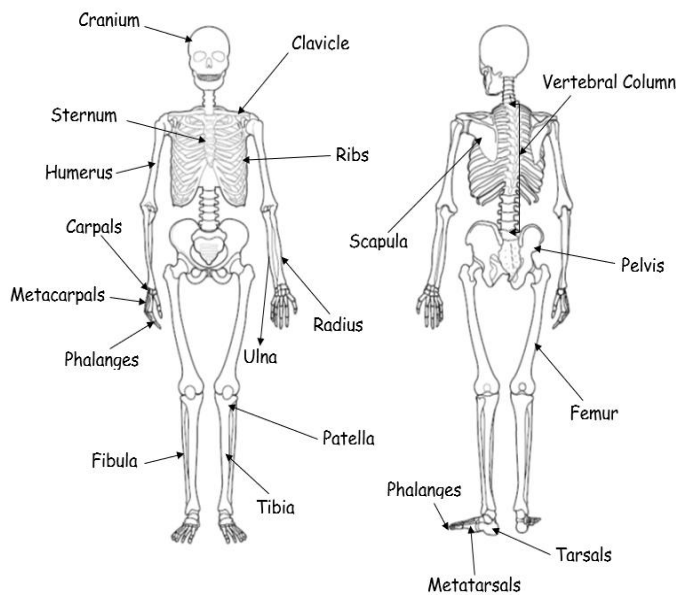
- ❖ You will need to specify how the actor **responds** to the rest of the actors on stage, the **distance** and **proximity** between them and what was the **significance** of this.
- ❖ Was the actor moving deliberately to suggest a feeling or emotion?
- ❖ The actor may be using a series of facial gestures and responses, e.g. **folded arms, eyes rolling, scrunched face, walking back and forth, pointing** or **back turned**.
- ❖ Remember that the impact of this on the rest of the actors needs to be explained and how this succeeded in causing tension, a feeling or an emotion.

# PHYSICAL EDUCATION

## 1. State the six functions of the skeleton:

- 🔴 Protection of vital organs.
- 🔴 Muscle attachment.
- 🔴 Joints for movement
- 🔴 Platelets clot blood to stop bleeding.
- 🔴 Blood cell production
- 🔴 Store calcium & phosphorus to keep bones strong.

## 2. Label the structure of the skeleton:

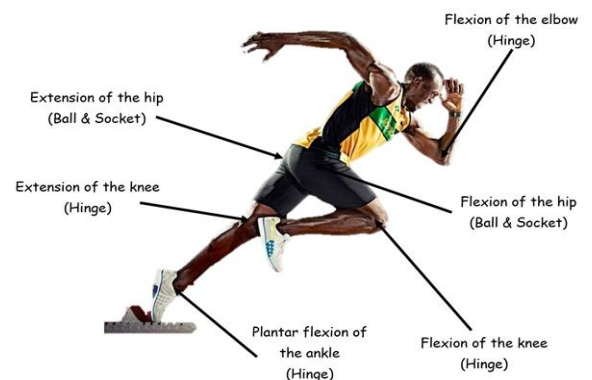


## 3. Name the bone types:



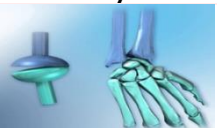
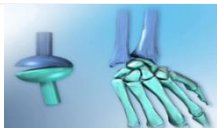
- 🔴 **Long bones** act as levers so we can move.
- 🔴 **Short bones** are important for weight bearing and to absorb shock.
- 🔴 **Flat bones**, such as the ribs, protect organs.
- 🔴 **Irregular bones** have odd shapes and perform a range of functions.

## 4. Describe the different types of movement at joints:

- 🔴 **Flexion:** bending movement (decreases angle).
- 🔴 **Extension:** Straightening movement (increase angle).
- 🔴 **Abduction:** Moving away from midline.
- 🔴 **Adduction:** Moving towards the midline.
- 🔴 **Plantar flexion:** Pointing the toes downwards.
- 🔴 **Dorsi flexion:** Pointing the toes upwards.
- 🔴 **Rotation:** Rotation around a joint or axis.
- 🔴 **Circumduction:** flexion/extension Abduction/adduction.



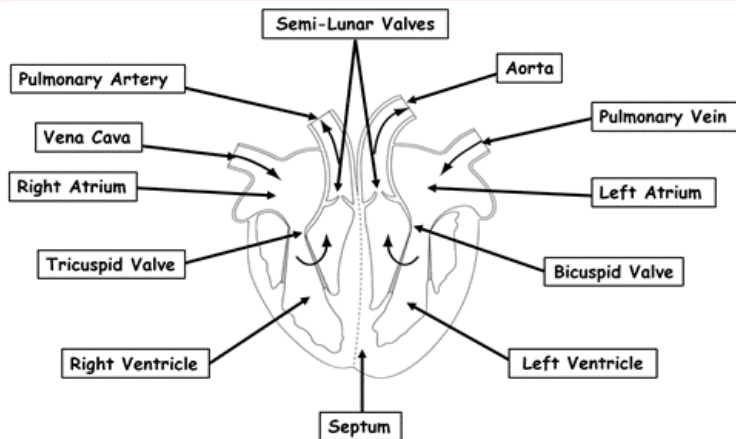
## 5. Name the four types of joints:

Hinge	Ball & Socket	Condyloid	Pivot
			
e.g. elbow and knee	e.g. hip and shoulder	e.g. wrist	e.g. neck (axis and Atlas)

## 6. Describe the functions of the cardiovascular system:

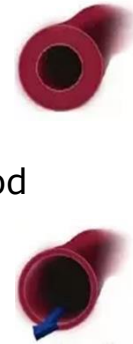
- Transport of nutrients.
- Transport of oxygen.
- Transport of carbon dioxide.
- Clotting of open wounds.
- Regulation of body temperature.

## 7. Label the structure of the heart:



## 8. Vasoconstriction and vasodilation:

- Vasoconstriction** means blood vessels constrict to make them smaller.
- Vasodilation** means that blood vessels dilate to make them bigger.



## 9. Describe the different parts of the heart:

- Septum** separates the right and left sides of the heart
- Valves** prevent the backflow of blood
- Arteries** take blood away from the heart
- Veins** take blood towards the heart
- Pulmonary artery** take blood to the lungs
- Pulmonary vein** takes blood from the lungs back to the heart
- Aorta** delivers oxygenated blood to the body

## 10. Describe the structure of arteries, veins and capillaries.

- Arteries** carry oxygenated blood to the muscles. They are thick so they can carry blood at high pressure.
- Veins** carry waste products from respiration (e.g. carbon dioxide) away from the muscles to the lungs to be exhaled. They are thin and carry blood at low pressure.
- Capillaries** allow gas exchange to happen quickly as they have very thin walls.

## 11. Describe the function of different parts of the blood:

- Red blood cells** carry oxygen (to the muscles) and carbon dioxide (to the lungs).
- White blood cells** fight infection and disease. They prevent infection if we get cut or scratched.
- Platelets** help prevent bleeding by clotting (sticking together) and forming a plug.
- Plasma** is the liquid part of the blood it acts as a transport system that transports the blood cells, platelets and nutrients to different parts of the body.



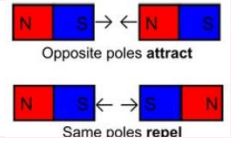
# PHYSICS

## 1. Are all metals magnetic?

- Iron, steel, nickel and cobalt are magnetic (Most are not magnetic)

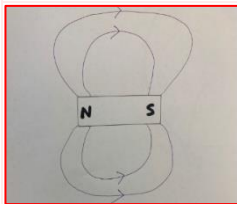
## 2. What do magnets do?

- Two like (same) poles will repel.
- Two unlike (opposite) poles will attract.
- Uses of magnets: speakers, generators & compasses



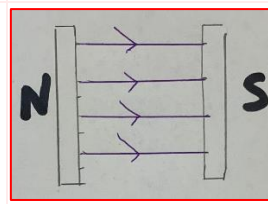
## 3. What do magnetic fields look like?

### Surrounding a bar magnet



Lines are continuous loops.  
They do not cross or overlap.  
They go from N → S

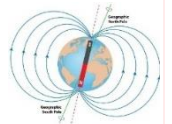
### A uniform magnetic field



Lines are straight lines  
They are equal distance apart.  
They go from N → S

## 4. Why does the Earth have a magnetic field?

- The Earth's outer core contains molten **iron** and **nickel**.
- The movement of these metals causes a magnetic field.
- The field lines are similar to a bar magnet.

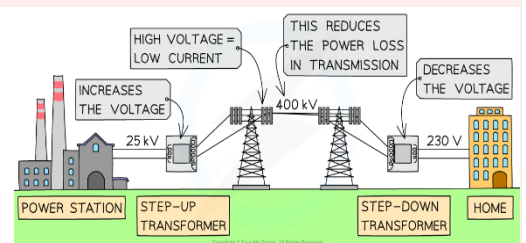


## 5. What is an electromagnet?

- If we pass current through a length of wire it produces a magnetic field.
- An **electromagnet** is a coil (a **solenoid**) with current flowing through.
- We can increase the strength of an electromagnet by increasing the current, using more coils of wire or winding the coil around a magnetic core.
- We can change the direction of the magnetic field by changing the direction of current.

## 6. What is the national grid?

- The national grid is a system of cables that deliver electricity from the power station to homes/schools/shops, etc...
- Electricity is transmitted at high voltages (low currents) to reduce energy lost via heating



## 7. Why are transformers used in the national grid?

- The current enters the transformer through the primary coil and leaves through the secondary coil.
- A **step-up** transformer has **more turns** on the secondary coil and **increases voltage** (decreases current)
- A **step-down** transformer has **less turns** on the secondary coil **decreases** voltage (increases current)

# TEXTILES

## 1. What should be included in your record board?

- Selecting images to draw to show you have understood the theme and can record (draw) items relating to this theme.
- Using different media to show skill within drawing, such as pencil, biro, coloured pencil, watercolour, tissue paper background, oil transfer print, ball pen (ink pen) or combining 2 media.
- All drawings need to be annotated to clearly show you can record your ideas and intentions to the theme and project.

## 2. How can I record my ideas?

- Design Ideas** – Draw out your design ideas, they should be clearly inspired by your samples or sources. Annotate these to explain parts of your designs
- Observational drawing** – Sketching objects that relate to your theme can help inspire design ideas – especially when creating patterns
- Take photographs** – take photos of sources for inspiration or take process photos when you are making samples as evidence.
- Annotation** – Annotation, ensure you annotate to explain your thoughts, this does not need to be a lot of writing, sometimes you might just bullet point!

## 3. What media can you use to record your ideas?

Design ideas / drawing		Insights / written annotation
<ul style="list-style-type: none"><li>Pencils</li><li>Collage</li><li>Watercolours</li><li>Paints</li><li>Chalk Pastels</li></ul>	<ul style="list-style-type: none"><li>Charcoal</li><li>Fineliners</li><li>Pen</li><li>Artist Markers</li><li>Photoshop (CAD)</li><li>Photographs</li></ul>	<ul style="list-style-type: none"><li>Written – pen / pencil</li><li>Bullet points / key words / paragraphs</li><li>Typed up on the computer</li></ul>

## 4. How do you annotate a design?

- What textile techniques have you used in your designs? Why?
- How does it link to the samples you have done?
- Is your design inspired by any of your sources? How? Why?
- What materials would you use? Why?
- How does this design link to your theme?
- What developments would you make to your designs? Why?

## 5. Key words:

### Composition

- 🌀 Background
- 🌀 Perspective
- 🌀 Proportion
- 🌀 Symmetry
- 🌀 Space
- 🌀 Scale
- 🌀 Foreground
- 🌀 Design
- 🌀 Decorative
- 🌀 Eye-Line
- 🌀 Focus
- 🌀 Blurred
- 🌀 Form

### Drawing

- 🌀 Tone
- 🌀 Line
- 🌀 Texture
- 🌀 Pattern
- 🌀 Shading
- 🌀 Contour
- 🌀 Positive
- 🌀 Negative
- 🌀 Observational
- 🌀 2D and 3D
- 🌀 Figurative
- 🌀 Shape
- 🌀 Pattern
- 🌀 Composition
- 🌀 Perspective

### Descriptive

- 🌀 Unrealistic
- 🌀 Realistic
- 🌀 Colourful
- 🌀 Bright
- 🌀 Linear
- 🌀 Rounded
- 🌀 Soft edged
- 🌀 Motion
- 🌀 Messy
- 🌀 Organised
- 🌀 Liquid
- 🌀 Geometric
- 🌀 Structured
- 🌀 Spiky
- 🌀 Hard
- 🌀 Still
- 🌀 Neat
- 🌀 Loud
- 🌀 Accurate
- 🌀 Disorganised

### Verbs

- 🌀 Construct
- 🌀 Prepare
- 🌀 Manipulate
- 🌀 Improve
- 🌀 Criticize
- 🌀 Examine
- 🌀 Inspect
- 🌀 Practice
- 🌀 Demonstrate
- 🌀 Engage
- 🌀 Relate
- 🌀 Interpret
- 🌀 Observe
- 🌀 Identify
- 🌀 Label

