Stafford Manor High School

Every Child Reaching their Full Potential

Year 11 Summer Term 1

Core Knowledge

- Art
- Biology
- Business
- Chemistry
- Design Technology
- English
- French
- Geography
- Health and Social Care
- History
- Information Technology
- Maths
- Media
- Performing Arts
- Physical Education
- Physics
- SEL
- Separate Science
- Textiles

ART

SUMMER TERM 1 (CONTENT FROM SPRING TERM 2)

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 final piece?

- A drawing that is on your Record Board developed into the style of an artist.
- You must not copy artist work; you must use it as inspiration.
- Inspiration includes colour, pattern, texture, composition and techniques.

3. Why is it important to add artist inspiration?

- Using artists as inspiration serves several important purposes in the world of art and creativity.
- **Learning and Skill Development**: Studying the works of established artists allows aspiring artists to learn techniques, methods, and styles. By analysing how artists handle composition, colour theory, brushwork, and other elements, individuals can improve their own skills and expand their artistic vocabulary.
- **Exploration of Styles and Movements**: Artists draw inspiration from various styles, movements, and periods in art history. By studying different artists, from classical masters to contemporary innovators, creators can explore diverse aesthetics, philosophies, and approaches to art-making.
- **Creative Stimulus and Innovation**: Exposure to a wide range of artistic expressions can stimulate creativity and encourage innovative thinking. Artists may reinterpret, blend, or challenge existing styles and techniques, pushing boundaries and contributing to the evolution of art.
- **Personal Expression and Voice**: While drawing inspiration from others, artists also develop their unique voice and style. By synthesizing influences from multiple sources, individuals can create original artworks that reflect their personal experiences, emotions, and perspectives.

4. 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.

BIOLOGY

SUMMER TERM 1 (CONTENT FROM SPRING TERM 2)

What are light and electron microscopes?

- **Light** microscopes use 2 **lenses** (eyepiece & objective) and light to magnify cells, tissues and large sub-cellular structures.
- Scanning (3D) and Transition (2D) **electron** microscopes have a much greater **magnification** & **resolution** (the smallest distance between 2 points which can still be seen as two points).

What are eukaryotic and prokaryotic cells?

- **Eukaryotic** animal and plant cells: have a **nucleus** and bigger.
- **Prokaryotic** bacterial cells: no nucleus and **smaller**.

What are the functions of sub-cellular structures?

- **Nucleus**: contain genes that control cell activity [**animal & plant**]
- **Cytoplasm**: where cell reactions happen [**animal & plant & bacteria**]
- **Membrane**: controls what enters & leaves [**animal & plant & bacteria**]
- **Mitochondria**: where respiration releases energy [**animal & plant**]
- **Ribosomes**: where proteins are made [**animal & plant & bacteria**]
- **Chloroplasts**: site of photosynthesis [**plant**]
- **Vacuole**: stores cell sap for cell structure [**plant**]
- **Wall**: for structure and support [**plant & bacteria**]

Microscopes core practical – how can we view cells?

- Place slide on stage and look through eyepiece lens → start with the lowest objective lens magnification → turn the focus wheel to obtain a clear image → increase the objective lens magnification and refocus.
- **Stains** make parts visible: plant cells: **iodine**; animal cells: **methyl blue**.
- Magnification = Image Size ÷ Actual Size.

What are specialised animal cell functions and adaptations?

- **Sperm cell** fertilises egg cell: acrosome enzyme, haploid nucleus, tail.
- **Egg cell** develops into fetus: nutrients in cytoplasm, haploid nucleus.
- **Ciliated cells** carry mucus: cilia to waft.
- **Red blood cells** carry oxygen: contain haemoglobin but no nucleus.

What are specialised plant cell functions and adaptations??

- **Root hair cell** absorbs water & minerals: large surface membrane and many mitochondria for energy.
- **Xylem cells** transports water: hollow with lignin deposits.
- **Phloem cells** sieve cells with holes allow movement and companion cells with mitochondria for energy.

What are the quantitative units of cell biology?

- Milli = 10^{-3} Micro = 10^{-6} Nano = 10^{-9} Pico = 10^{-12}

BUSINESS

SUMMER TERM 1 (CONTENT FROM SPRING TERM 2)

1. What are the four types of organisation chart?

Tall hierarchical
Flat
Centralised
Decentralised

2. What are the three types of communication method?

Verbal – meetings, telephone, online conferences
Written – letters, reports, posters
Digital – email, text, social media

3. What are the barriers to communication?

Verbal – language not understood, accent not understood, speaking too fast or too slow
Written – illegible handwriting, poor spelling and grammar, poor font choice

4. What are the three main types of employment?

Full-time
Part-time
Flexible Hours

5. What are the benefits of a full-time or part-time contract?

- Stable earnings and high degree of job security
- Regular contributions towards pension
- Likely to receive holiday and sick pay, providing more security
- More likely to be sent on training courses to improve skills

6. What are the five main job roles in a large business?

- Directors
- Senior Managers
- Supervisors / team leaders / junior managers
- Operational staff
- Support staff

7. Why should you train staff?

Motivate staff therefore improve retention
Introduction of new technology or working practices

CHEMISTRY

SUMMER TERM 1 (CONTENT FROM SPRING TERM 2)

1. How do you calculate the number of protons, neutrons, and electrons?

- **Protons:** The smallest number (the atomic number)
- **Neutrons:** Take the two numbers away (mass number – atomic number)
- **Electrons:** The smallest number (the atomic number)

2. How do you draw/write the electronic configuration?

- **Electrons:** The smallest number (the atomic number)
- **1st shell:** Can contain 2 electrons.
- **2nd shell+:** Can contain 8 electrons.

3. What is the charge and mass of protons, neutrons, and electrons?

- **Protons** are ***positive*** and have a mass of **1**.
- **Neutrons** are ***neutral*** and have a mass of **1**.
- **Electrons** are ***negative*** and have a mass of **0.005 (almost 0)**.

4. What do the group and period tell us?

- **Group:** The total number of electrons in the ***outer shell***.
- **Period:** The total number of ***shells*** in an atom.

5. What is an isotope?

- **An isotope** is an atom with the ***same number of protons*** and a ***different number of neutrons***.

6. Similarities and differences between Mendeleev's Periodic Table and ours.

- **Similarity:** Both in ***groups*** based on ***chemical properties***.
- **Difference 1:** His was in order of ***atomic weight***/mass. Ours is in order of ***atomic number***.
- **Difference 2:** His had ***gaps***, ours doesn't.

7. Why did Mendeleev leave gaps?

- If the elements in a group didn't match up, Mendeleev would ***swap*** the elements or ***leave gaps***.
- Mendeleev left gaps because elements ***hadn't been discovered*** yet.

DESIGN TECHNOLOGY

SUMMER TERM 1 (CONTENT FROM SPRING TERM 2)

1. What are the main types of timber?

- Timbers are **hardwoods** (e.g., oak, mahogany) from slow-growing trees and **softwoods** (e.g., pine, cedar) from fast-growing trees.
- Hardwoods are denser and more expensive
- Softwoods are cheaper and easier to work with.

2. How are metals categorized?

- **Ferrous metals** (e.g., steel, iron) contain iron and can rust.
- **Non-ferrous metals** (e.g., aluminium, copper) do not rust and are often lightweight.

3. What are the two main types of polymers?

- **Thermoplastics** (e.g., acrylic, polypropylene) can be reshaped when heated.
- **Thermosetting plastics** (e.g., epoxy resin) set permanently and resist heat.

4. In what forms are materials supplied?

- Materials come in **stock forms** to reduce waste.
- Wood is sold in planks and sheets, metals in sheets and rods, and plastics in sheets and granules.

5. How can designers make material use more sustainable?

- By using recycled materials, reducing waste through efficient cutting, and choosing renewable resources like FSC-certified timber.

6. What factors affect material selection?

- Strength, toughness, elasticity, hardness, and weight.

7. What is a design specification and why is it important?

- A design specification lists key requirements (e.g., function, safety, sustainability) to ensure a product meets its purpose.

8. How do CAD and CAM help designers?

- **CAD** (e.g., Fusion 360) allows precise digital design.
- **CAM** (e.g., CNC routers, laser cutters) automates production for accuracy.

ENGLISH

SUMMER TERM 1 (CONTENT FROM SPRING TERM 2)

1. What is a metaphor?

- A metaphor is a figure of speech that implicitly compares two unrelated things, typically by stating that one thing is another. E.g. 'That chef is a magician'

2. Two rules for using a semi-colon

- 1. Use semicolons to connect related independent clauses. E.g. 'I ordered a cheeseburger for lunch; life's too short for counting calories.'
- 2. You can use semicolons to divide the items of a list if the items are long or contain internal punctuation. E.g 'I need the weather statistics for the following cities: London, England; London, Ontario; Paris, France; Paris, Ontario; and Perth, Scotland.

3. What do you understand by the term 'writer's perspective'?

- Perspective – the writer's outlook. A writer's perspective will be shaped by their experiences and outlook – the lens through which they see the world.

4. What do you understand by the term 'format'?

- The conventions of writing for a particular form. For example, an article would have a headline and sub-headings.

5. Expanding your vocabulary

- joyous content blessed triumphant
- sad mournful sombre
- disheartened despairing gloomy angry
- embittered indignant aggrieved resentful
- wrath despise fear terror
- dread trepidation ominous foreboding
- pointless futile hopeless aimless
- worthless weak delicate fragile
- timid powerless feeble strong
- powerful mighty forceful fierce
- formidable difficult strenuous challenging
- gruelling demanding grow develop

FRENCH

SUMMER TERM 1 (CONTENT FROM SPRING TERM 2)

1. What are these in English? Le bulletin; le cours; la cour ; les devoirs ; le directeur / la directrice ; l'élève

- School report; lesson; playground; homework; headteacher; pupil

2. What are these in English? La matière; le / la prof (le professeur / la professeure) ; la récré ; la pause-déjeuner

- Subject ; high school teacher ; break ; lunch time

3. What are these in English? L'emploi du temps; en sixième ; en seconde ; le trajet

- Timetable ; in year 7 ; in year 11 ; journey (short)

4. What are these subjects in English? L'informatique; la chimie; le dessin; l'EPS ; les langues

- Computing ; chemistry ; art ; PE ; languages

5. What are these nouns in English? Le car de ramassage; le bruit ; l'ambience ; l'inconvénient ; l'intimidation ; la mode

- School bus ; noise ; atmosphere ; disadvantage; bullying; fashion

6. What are these verbs (in the infinitive) in English? Avoir raison; avoir tort; faire attention ; passer l'examen

- To be right ; to be wrong ; to pay attention ; to sit an exam

7. What are these adjectives in English? Bien équipé; faux; vrai; pire; tôt ; en retard ; propre ; sale

- **Well-equipped ; false ; true ; worse ; early ; late; clean; dirty**

8. What are the future endings for je, tu, il/elle/ on, nous, vous, Ils/elles which you add to the infinitive ?

- Je = ai; tu = as; il / elle/ on = a ; nous = ons ; vous = ez ; ils /elles – ont (eg je travailler**ai**)

9. What are the future conditional endings for je, tu, il/elle/ on, nous, vous, Ils/elles which you add to the infinitive ?

- Je = ais; tu = ais; il / elle/ on = ait ; nous = ions ; vous = iez ; ils /elles – aient (eg je travailler**ais**)

10. What are the irregular stems for these verbs in the future and future conditional tenses? Aller; faire; être; avoir; vouloir; devenir

- Ir ; fer ; ser ; aur ; voudr ; deviendr (eg je voudrais)

GEOGRAPHY

SUMMER TERM 1 (CONTENT FROM SPRING TERM 2)

1. Describe how population pyramids help to understand development.

- The dependency ratio
- Population demographic of countries
- Gender life expectancy

2. What is a science park?

- A group of scientific and technical knowledge-based businesses located on a single site.
- Most are associated with universities, enabling them to use research facilities and employ skilled graduates.

3. Explain the theory of continental drift.

- Tectonic plates
- Pangea
- convection currents
- slab-pull theory.

4. Describe the primary and secondary effects of the Haiti and Kobe earthquakes.

- Death toll.
- Injured.
- Buildings destroyed.
- Schools destroyed. Hospitals destroyed.
- Homeless.
- Destroyed infrastructure.

5. What is fetch?

- The distance the wind blows across the water

6. What examples of hard engineering?

- Sea wall
- Rock armour
- Gabions
- Groynes

7. Define a river.

- A large natural stream of water flowing in a channel to the sea or a lake**.**

HEALTH & SOCIAL CARE

SUMMER TERM 1 (CONTENT FROM SPRING TERM 2)

1. Define a person-centred approach

- Where the individual is involved in their care, and their needs, wishes and circumstances are taken into consideration.

2. The benefits of person-centred approach include:

- More comfortable with recommendations, advice and treatment.
- Personal needs are met
- Feel happier and more positive about their health
- Improves independence
- Increases motivation
- Increases support

3. Recommendations for improving health and wellbeing include:

- Improving blood pressure
- Maintaining a healthy weight
- Eating a balanced diet
- Physical activity
- Quitting smoking
- Sensible alcohol consumption
- Stop substance misuse

4. Define a barrier

- Something **unique to the health and social care system** that prevents an individual accessing a service

5. Examples of barriers include:

- Physical barriers
- Barriers to people with a sensory disability
- People from different social and cultural backgrounds
- English as an additional language
- Geographical
- Resources
- Financial

6. Define an obstacle:

- Something **personal to an individual** that blocks a person moving forward or when action is prevented or made more difficult

7. Examples of obstacles include:

- Emotional/Phycological
- Time constraints
- Availability of resources
- Unachievable targets
- Lack of support

HISTORY

SUMMER TERM 1 (CONTENT FROM SPRING TERM 2)

1. What was the SD?

- Nazi Secret Service

2. Who ran the concentration camps?

- The SS

3. Which group of religious dissenters openly opposed the Nazis?

- Jehovah's witnesses

4. What was the name of the group of young people who listened to jazz and liked to dance, despite Nazi restrictions?

- The Swing Kids

5. What was the name of the youth group that wore Edelweiss flowers and resisted Nazi rule?

- The Edelweiss Pirates

6. What was the name of Nazi Trade Union?

- DAF (Deutsche Arbeitsfront)

7. What were women encouraged to do by the Nazis?

- Marry and have children

8. What was the name of the Nazi youth group?

- Hitler Youth

9. What was the name of the Nazi master race?

- Aryan

10. Who was made Minister of Armaments and War Production in 1942?

- Albert Speer

11. Who carried out the July 1944 bomb plot?

- Claus Graf von Stauffenberg

12. What was the name of the Scholls' resistance group?

- The White Rose

13. What did Goebbels initiate in February 1943?

- Total War

INFORMATION TECHNOLOGY

SUMMER TERM 1 (CONTENT FROM SPRING TERM 2)

1. What is a work plan and what does it include?

A work plan is a detailed outline that specifies the tasks, activities, resources, timelines, and milestones involved in accomplishing a particular project or set of objectives.

2. What is a mind map and what does it contain?

- A visual tool that helps organise and represent information in a more creative and structured way.
- It contains a main/central theme, nodes, sub-nodes and branches.

3. What is a moodboard?

A moodboard is used to visually convey a specific theme, concept, or idea by compiling a collection of images, colours, textures, typography, and other visual elements.

4. When is a moodboard appropriate to use?

- Start off a new project
- Generate ideas
- Present to potential clients

5. What is the purpose of a visualisation diagram and what does it contain?

- To provide a rough sketch/idea on what the final product may look like.
- It contains titles, font, Colours, Images, Logo and annotation (labels)

6. What is a storyboard?

- A storyboard is a visual representation of a story presented in a sequence of images or sketches
- It contains scene content, scene numbers, timings, camera, lighting, location and sound.

7. What is a script and what does it contain?

- A script is a written document that outlines the dialogue, actions, and sometimes stage directions for a performance, typically in theatre, film, television, or radio.
- It contains dialogue, characters, direction, location, camera, sound, transitions, scene numbers.

MATHEMATICS

SUMMER TERM 1 (CONTENT FROM SPRING TERM 2)

1. Key word definitions:

- **Index:** Another word for power
- **Consecutive:** Numbers that follow each other on the number line

2. What are congruent shapes?

Shapes that are exactly the same. (they may be rotated or reflected).

3. What are similar shapes?

When a shape is enlarged, the result is a similar shape.

4. What are the four conditions for unique triangles?

ASA, SAS, SSS, RHS

5. What are the four power facts?

$n^0 = 1$

$n^1 = n$

$n^{-1} = \frac{1}{n}$

$n^{-2} = \frac{1}{n^2}$

6. What is standard form?

Standard form is a way of writing very big or very small numbers.

7. What are the three parts to a number written in standard form?

$A \times 10^n$

Where A is any number between 1 and 10.

8. How do you add or subtract numbers in standard form?

Convert back to ordinary form first, then add or subtract as normal.

9. How do you multiply numbers in standard form?

Rearrange the order of the calculation. Calculate the numbers first, then use the index laws on the powers of ten.

MEDIA

SUMMER TERM 1 (CONTENT FROM SPRING TERM 2)

1. What does OSP stand for?

- Online, Social and Participatory media. (Online, social media and gaming)

2. What are the OSP CSPs and what category do they fall in to?

- **Lara Croft**: Gaming.
- **Marcus Rashford**: Online and social media.
- **Kim Kardashian:** Online and social media / media influencer

3. What are semiotic codes in the study of media products?

- Semiotics means the study of signs and symbols and how to interpret their meaning. It is a vital skill in Media Studies as there are so many meanings built into media products.

4. Name 3 audience types from Young and Rubicam Audience Classification

- The Aspirer
- The Mainstreamer
- The Resigned
- The Succeeder
- The Struggler
- The Reformer
- The Explorer

5. What are social media codes and conventions?

- Verbal Language
- Visual Language
- Hypertext use
- Use of brand image

PHYSICAL EDUCATION

SUMMER TERM 1 (CONTENT FROM SPRING TERM 2)

1. What is sportsmanship?

- Sportsmanship is showing **fair play**, **respect**, and **good conduct** in sports.
- It means competing honestly and not using unfair advantages.

2. What are some examples of sportsmanship?

- Examples include shaking hands with opponents, showing respect to officials, kicking the ball out if an opponent is injured, and being honest about rules.

3. Why is sportsmanship important?

- It creates **good role models, a positive image for the sport, and personal satisfaction from winning fairly**.

4. What is gamesmanship?

- Gamesmanship is **bending the rules to gain an unfair advantage** without actually breaking them. It is considered unsporting behavior.

5. What are some examples of gamesmanship?

- Examples include **playing for time when winning, selecting a weaker team to save energy for a bigger match, and sledging in cricket to distract opponents**.

6. Why is gamesmanship a problem in sport?

- It creates **bad role models, a negative image for the sport, and dissatisfaction from winning unfairly**.

7. What is deviance in sport?

- Deviance is **unacceptable behavior that breaks the rules** of sport. Examples include **cheating, taking performance-enhancing drugs, violence, match-fixing, racism, and sexism**.

8. Why do athletes engage in deviance?

- Some athletes break the rules for **prizes, fame, sponsorship, money, promotion, or due to pressure from coaches**.

9. What are the consequences of deviance in sport?

- Punishments include **red cards, fines, loss of sponsorship, damaged reputation, and even prison in serious cases**.

10. How is deviance prevented in sport?

- Measures include **random drug testing, anti-racism and anti-drug campaigns, and fair play awards like UEFA Respect Fair Play Rankings**.

PHYSICS

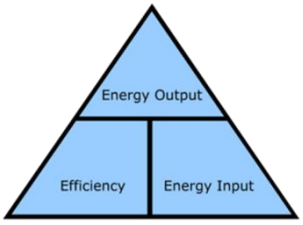
SUMMER TERM 1 (CONTENT FROM SPRING TERM 2)

1. What are the eight energy stores?

- Energy allows work to be done, it has **8** different stores (types)
- Energy is measured in **joules (J)**

Thermal	The hotter an object, the more thermal energy it stores	Today
Kinetic	Any moving object has a kinetic energy store	Kids
Chemical	Can release energy through a chemical reaction (e.g. fuels, foods)	Can
Elastic	Anything stretched or compressed (e.g. elastic band or spring)	Easily
Magnetic	In two magnets that are attracting or repelling	Memorise
Gravitational	Due to an objects position within a gravitational field	GCSE
Electrostatic	In two electric charges that are attracting or repelling	Energy
Nuclear	Released from the nucleus (e.g. decay, fission or fusion)	Names

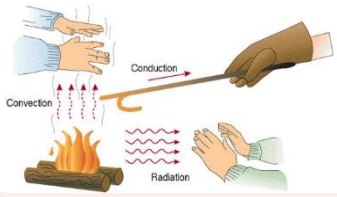
2. What is the conservation of energy?



- The **conservation of energy** tells us that: energy cannot be made or destroyed, it can only be transferred between stores
- Efficiency = $\frac{\text{useful energy transferred by device}}{\text{total energy supplied to device}}$
- To improve efficiency- reduce the amount of energy wasted.
- To **reduce** the amount of **energy wasted**- use **insulation** to reduce heat loss or use a **lubricant** to reduce friction.

3. How can heat energy be transferred?

- Heat energy can be transferred from one place to another through **Conduction, convection** or r**adiation**



- **Insulators** are poor conductors, using insulation slows down the rate of energy transfer to the surroundings.

4. How can the amount of energy stored be calculated?

- Gravitational potential energy (GPE) is stored in raised objects

GPE (J) = mass (kg) x gravitational field strength (N/kg) x change in height (m)

- Kinetic energy (KE) is stored in moving objects.

KE (J) = ½ mass (kg) x velocity^2 (m/s)

5. How are non-renewable energy resources used?

- **Fossil fuels** (coal, oil and gas) & **nuclear** are non-renewable
- **Advantages:** they are a **reliable** source of energy, fairly **cheap** to use and they provide a **lot of energy**
- **Disadvantages**: They are **running out**, fossil fuels **produce carbon dioxide**, nuclear power produces **radioactive waste**.

6. How are renewable energy resources used?

- Solar power, wind power, hydroelectric, geothermal and biomass are all examples of renewable energy resources.
- **Advantages:** they **will not run out**, they **do not produce carbon dioxide** (biofuels are carbon neutral).
- **Disadvantages**: In general they are **not reliable** and **do not produce enough energy** to meet our demands.

SEL

SUMMER TERM 1 (CONTENT FROM SPRING TERM 2)

1. Examples of sexually transmitted infections (STI) include:

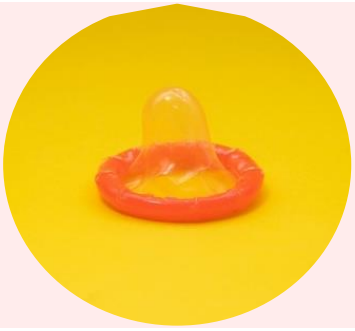
- Chlamydia
- Gonorrhoea
- Genital Warts
- Syphilis
- Pubic Lice
- Genital Herpes
- HIV

2. Different types of contraception include:

- The Pill
- Contraceptive Patch
- Contraceptive Injection
- Contraceptive Implant
- Plastic IUD & IUS
- Copper IUD
- Male Condom
- Female Condom
- Diaphragm/Cap
- Fertility Awareness
- Sterilisation / Vasectomy

3. Before using a condom you must ensure you check:

- Use by/Expiry date
- That it has a European (CE) or UKCA mark
- The packet/condom is not damaged or ripped
- The condom is not put on inside out



4. Options for unplanned pregnancy include:

- Become a parent
- Have an abortion (also known as a 'termination')
- Relinquish the child for adoption

5. Factors that might influence the decisions someone makes about an unplanned pregnancy include:

- Their own attitude towards and feelings about having a baby
- Their partner's attitude towards and feelings about having a baby
- Relationship status
- Opinions of family and friends
- Worries about education or employment
- Plans for the future
- Career goals or aspirations
- Personal goals or aspirations
- Physical or mental health.
- Financial considerations
- Religion and/or culture
- Community attitudes

SEPARATE SCIENCE

SUMMER TERM 1 (CONTENT FROM SPRING TERM 2)

1. How can tissue cultures be used to clone plants?

- Tissue sample is **scraped** from the parent plant.
- The sample is placed into agar with **nutrients** and auxins.
- **Tiny plantlets** grow and are planted into compost.

2. What are monoclonal antibodies?

- Identical copies of one antibody.
- Used in pregnancy tests, to detect and treat cancer.

3. How are plant hormones used?

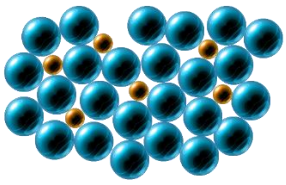
- Auxin: selective weedkiller, rooting powder.
- Gibberellins: stimulate germination, produce seedless fruit
- Ethene: prevent ripening of fruit.

4. Why is the percentage yield never 100%?

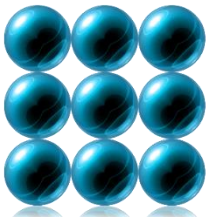
- Some of the products is **lost when transferred**.
- **Side reactions** may have occurred.
- The reaction may **not have finished**.

5. Why are alloys stronger than metals?

Alloy



Pure



- Alloys have **different sized particles**.
- The **layers** cannot **slide past each other**.
- This makes alloys **stronger**.

6. What happens to voltage of a chemical cell over time?

- Voltage will start high, will slowly decrease until it stops completely.
- A chemical cell will work until one of the **reactants** has been used up.

7. What is in the solar system?

- Our solar system has **8 planets** (Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus & Neptune), **moons, asteroids, comets and dwarf planets.**
- The **geocentric** model placed the **Earth** at the **centre** of the solar system
- The **heliocentric** model placed the **Sun** at the **centre** of the solar system
- **Gravity** provides the **centripetal forces** that keeps planets **moving in a circle**.

8. What are the life cycles of stars?

- Small stars like the Sun: nebula → main sequence star → red giant → white dwarf
- Large stars: nebula → main sequence star → red supergiant → supernova → black hole or neutron star

9. What does red-shift tell us about the Universe?

- **Red-shift** is the **stretching** of light **waves** towards the red end of the spectrum.
- It happens because **stars and galaxies** are **moving away from each other**.
- More **distant galaxies move away faster** and show **more red-shift.**
- This proves the **Universe is expanding. CMBR supports the big bang throry.**

TEXTILES

SUMMER TERM 1 (CONTENT FROM SPRING TERM 2)

1. Key words:

- **Contour**: The outline or boundary that defines the shape of a textile.
- **Observational**: Relating to the act of closely observing and depicting details in a textile or design.
- **Tone**: The lightness or darkness of colours in a textile, contributing to its overall visual impact.
- **Shape**: The form or outline of a textile, determined by its external boundary.

2. Key drawing words:

- **Tone**: Lightness or darkness in textile colours.
- **Line**: Path created by stitching or design.
- **Texture**: Surface feel or appearance of the fabric.
- **Pattern**: Repeated design elements on textiles.
- **Shading**: Gradation of colour to show depth.
- **Contour**: Outline or edge of design elements.
- **Positive**: Main design elements in a textile.
- **Negative**: Background or space around design elements.
- **Observational**: Based on direct visual study.
- **2D and 3D**: Flat versus dimensional textile designs.
- **Figurative**: Representing real-world objects or figures.
- **Shape**: Form or outline of design elements.
- **Pattern**: Repeated arrangement of shapes or motifs.
- **Composition**: Arrangement of design elements in the textile.
- **Perspective**: Depth and spatial relationships in textile design.