

Stafford Manor High School

Year 10 Spring Term 2 Core Knowledge

- 1. Art
- 2. Biology
- 3. Business
- 4. Chemistry
- 5. Design Technology
- 6. English
- 7. French
- 8. Geography
- 9. History
- 10. Information Technology
- 11. Maths
- 12. PE
- 13. Performing Arts
- 14. Physics
- 15. 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?

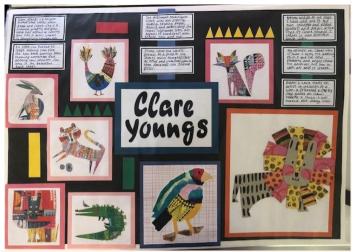
We write and learn about artists so we can better understand the world of art and learn from what others have done.

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.





1. How can we prevent transmission of STI's?

- Barrier methods of contraception. (condoms) 98% effective if used as instructions dictate.
- Abstinence 100% effective.

2. How do vaccinations work?

- Injected with a weakened or dead version of a microbe.
- Lymphocytes produce antibodies to fight off the microbe.
- Memory lymphocytes get left behind.
- If secondary infection occurs, the body will be able to produce antibodies quicker.
- The microbe will be destroyed quickly preventing illness.

3. How are antibiotics developed?

- Preclinical stage tests carried out on cell or tissues in the lab.
- Testing carried out on animals to determine the effect on a body without risking human health.
- Small clinical trial carried out on a few healthy people to ensure harmful side effects are limited.
- Large clinical trial to determine dosage and investigate side effects further.

4. Why are antibiotics only used with bacterial infections?

- Antibiotics inhibit cell processes of the bacterial cell.
- Viruses survive within host cells and can only reproduce using other cells machinery, so antibiotics cannot destroy viruses.

5. Investigating effectiveness of antibiotics

- Split an agar plate into 4 by drawing lines on the bottom.
- Place a different antibiotic disc into each section.
- Replace the lid and seal by putting a tab of tape on opposite sides of the plate.
- Do not fully seal as it allows the growth of harmful bacteria
- Incubate for a few days,
- Measure the distance between bacteria growth and antibiotic disc. This is known as the zone of inhibition.
- The larger the zone the more effective that antibiotic against that bacteria.



1. What are stakeholders?

Anyone interested in the activities of a business.

2. What is a shareholder?

Someone who owns part of a company.

3. What are the three main areas that technology has been developed in businesses?

Trading – being able to buy and sell online Communicating – using websites, email, video conferencing Payments – businesses can accept payments in more ways

4. What impact on sales does technology have?

Businesses are likely to sell more because they can reach a wider market, but it is easier for customers to compare prices – so small local businesses may suffer.

5. What impact on costs does technology have?

Keeping up to date and installing technology is expensive, but if a business can replace stores or staff with technology this can save money in the long run.

6. What impact on marketing does technology have?

Product – innovation needs to increase to keep up with changes Price – greater efficiency can reduce prices Place – a business does not need a physical store Promotion – guicker and cheaper

7. What is e-commerce?

Buying and selling of goods or services online.

8. What is m-commerce?

Using a mobile phone to trade online.



- 1. What is the definition of electrolysis?
 - Breaking down of an electrolyte using electricity.
- 2. What is the definition of an electrolyte?
 - A **liquid** that contains **ions**.

3. What are the names and charges of the two electrodes?

PANIC: Positive Anode, Negative Is Cathode

4. What do you need to carry out electrolysis?

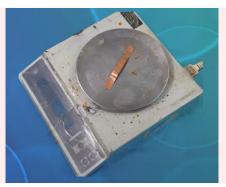
- An electrolyte in a beaker
- A **d.c.** power supply.
- Two electrodes (anode and cathode)

5. What happens to ions during electrolysis?

- Cations (positively charged ions) move to the negative cathode.
- Anions (negatively charged ions) move to the positive anode.

6. How do you carry out electrolysis of copper sulfate solution?

- Trigger: Electrolysis of copper sulfate solution with copper electrodes.
- Key Steps: Mass → Power pack →
 0.2A → Wash → Mass



7. What happens to the mass of cathode/anode during electrolysis using copper electrodes?

- Anode mass decreases (because copper atoms turn into ions)
- Cathode mass increases (because the copper ions move to the cathode)
- The difference in mass is not the same because sludge will also fall off of the anode.

8. What is the definition of oxidation and reduction in terms of electrons?

OIL RIG: Oxidation Is Loss of electrons, Reduction Is Gain of electrons.

DESIGN TÉCHNOLOGY

1. What is a design process?

- Design Brief: A document outlining design project requirements and constraints.
- **Research:** Gathering information and inspiration for a problem.
- **Specification:** A detailed list of product requirements.

2. What are materials and properties?

- Properties: Material characteristics like strength, flexibility, and conductivity.
- Sustainability: Considering the environmental impact of materials and processes.
- Composite Materials: Materials made from two or more different types of material.

3. What is a manufacturing process?

- **Casting**: Forming materials by pouring them into moulds.
- Machining: Shaping materials through cutting, milling, or drilling.
- Joining: Connecting materials using welding, soldering, or gluing.

4. What do CAD and CAM mean?

- **CAD**: Using computer software for designing products.
- **CAM**: Using computer-controlled machinery for manufacturing.

5. What do ergonomics and anthropometrics mean?

- Ergonomics: Designs to suit the human body and its movements.
- Anthropometrics: Study of the measurements and proportions of the human body.

6. What is quality control and assurance?

- Quality Control: Ensuring products meet specified standards.
- **Quality Assurance**: Systems to prevent defects in manufacturing.

7. How can we stay safe in a DT lab?

- Risk Assessment: Evaluating potential hazards and taking measures to minimize risks.
- **PPE**: Gear worn to protect against workplace hazards.

8. What does sustainability mean?

- Renewable Resources: Resources that can be replaced naturally.
- Life Cycle Analysis: Assessing the environmental impact of a product from raw material extraction to disposal.

9. What does 'prototype and testing' mean?

- Prototyping: Creating a preliminary model or sample of a product.
- Testing: Evaluating the functionality, durability, and performance of a product.



1. How long is each English Language exam?

1 hr 45 minutes

2. 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'

3. List two rules for using a semi-colon

- I. 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.

4. 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.

5. 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.

ENGLISH LETERATURE

1. In the poem 'Ozymandias' what words appear on the statue?

Look upon my words ye mighty and despair'

2. Name another poem in the anthology where the misuse of power is a theme.

My Last Duchess

3. What is the form of the poem Ozymandias?

🔮 Sonnet

4. Name something that the Duke disliked about his ex-wife in the poem My Last Duchess.

🕴 Her blush



1. What are these in English? Le bal; le cadeau; L'Eid ; le défilé ; la fête ; le Noël ; La Pâque

Ball /dance; present; Eid; procession; party; Christmas; Easter

2. What are these in English? Les feux d'artifice ; l'agneau ; le bœuf ; la dinde ; le porc ; le poulet ; la crêpe

Fireworks; lamb; beef; turkey; pork; chicken; pancake

3. What are these in English? La bande dessinée (La BD) ; annulé(e) ; gratuit ; rigolo ; rire ; le spectacle

Cartoon strip; cancelled; free; funny; to laugh; (the) show

4. What are these in English? arrêter ; la blague ; le jour férié ; le réveillon de Noël ; se retrouver ; le sapin

To stop; joke; public / bank holiday; Christmas Eve; to meet; Christmas tree

5. How do you form the perfect tense?

 Auxiliary verb (avoir or être) in present tense, followed by past participle (endings é, i, or u)

6. Write out avoir in the present tense

J'ai, tu as, il/elle/on a, nous avons, vous avez, ils/elles ont

7. Write out être in the present tense

Je suis, tu es, il / elle/ on est, nous sommes, vous êtes, ils /elles sont

8. Change into past participles: jouer, nager, finir, sortir, répondre

Joué, nagé, fini, sorti, répondu

9. Dr & Mrs Vandertramp : what is this acronym, and why?

 Descendre, rentrer, monter, retourner, sortir, venir, aller, naître, devenir, entrer, revenir, tomber, rester, arriver, mourir, partir – verbs that use être in the perfect tense as auxilliary verb

10. What do the verbs mean?

Descendre (to go down), rentrer (to return), monter (to go up), retourner (to return), sortir (to go out), venir (to come), aller (to go), naître (to be born), devenir (to become), entrer (to enter), revenir (to come back), tomber (to fall), rester (to stay), arrive (to arrive), mourir (to die), partir (to leave)



1. Define a river.

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

2. What is a drainage basin?

This is the area of land in which water drains into a specific river.

3. What do we call the point where two rivers meet?

Confluence

4. What is the difference between long and cross profiles of a river?

- The long profile shows the gradient of a river from its source to its mouth. It is not always a smooth line and can have.
- The cross profile of a river valley shows the shape of the valley. It is an imaginary 'slice' across a river channel and its valley at a specific point.

5. What are the three river processes?

- Erosion
- Transportation
- Deposition

6. What erosional landforms are found in a river?

- Interlocking spurs
- Waterfall
- 🔮 Gorge

7. What transportation landforms are found in a river?

- Meanders
- Ø Ox-bow lakes

8. What depositional landforms are found in a river?

- Estuaries
- Levees
- Flood plains

HEALTH & SOCIAL CARE

1. Common health conditions people suffer with are?

- 🔹 Arthritis
- Cardiovascular conditions
- Type 2 Diabetes
- Obesity
- Respiratory conditions (asthma, chronic obstructive pulmonary disease (COPD)
- Sensory impairments (hearing, vision)

2. What is primary health care?

- Primary health care services are the first point of contact you are likely to have with the NHS.
- Examples of primary health care include: GP/doctor, pharmacist, dentist, optician and A&E.

3. What is secondary health care?

- This is specialist treatment or care that a primary health care practitioner cannot provide.
- Primary health care practitioners will often refer patients to secondary care.
- Examples of secondary heath care include: paediatrics, neurology, oncology, cardiology and psychiatry.

4. What is tertiary care?

- If a patient needs more than secondary care can provide, they will be referred to tertiary care.
- This is because specialist resources and equipment is needed delivered by highly skilled, experienced health professionals.
- Examples of tertiary care include: complex brain surgery, children's cancer treatment and specialist life support treatment.

5. What are allied health professionals?

- Allied health professionals work in a range of specialities. They support individuals who are experiencing both mental and physical health problems
- Examples of allied health care professionals include: art therapists, dietician, paramedic, occupational therapist and a speech and language therapist.

6. What is multi-disciplinary team working?

A group of professional working together with the aim of providing person centred care to meet the needs of an individual.

7. What are the **benefits** of multi-disciplinary working?

- Avoids duplication
- Offers a holistic approach, where all needs can be addressed.



- 1. When was William crowned King of England?
 - 25 December 1066
- 2. Why were some Anglo-Saxon nobles allowed to keep their land?
 - If they swore to accept William's rules
- 3. Who did William give the rest of the land to?
 - His Norman followers
- 4. Who led the rebellion at Exeter, 1068?
 - Gytha, Harold's mother
- 5. What did William build to try and put down rebellions?
 - Castles
- 6. What was the Harrying of the North?
 - William and his troops burned down the north of England

7. Who led the last Anglo-Saxon rebellion?

Hereward the Wake



INFORMATIONTECHNOLOGY

1. How has ICT led to unemployment?

Computer-controlled warehouses need only a handful of staff to operate them

Computer-controlled robots are now common on production lines, replacing human workers

The old skills of workers in the printing industry are now out-of-date some jobs have disappeared as they can now be done automatically

2. Give examples of the type of jobs that ICT has led to the creation of

Computer technicians Programmers Web designers Systems analysts.

3. How have people been retrained to make use of modern technology?

- Secretaries now use word processors and not typewriters.

- Travel agents book holidays by computer, not by phone or letter.

- Telephone banking has meant that many bank staff now work by phone in front of a computer, instead of being in a branch, behind a counter.

- Designers now use CAD software rather than pencil and paper on a drawing board.

4. What is teleworking?

Teleworking, sometimes called telecommuting, means working from home using modern technology to keep in touch with your business.

5. What are the advantages of teleworking?

Jobs can be relocated to places where it is more attractive, more convenient or cheaper to live.

6. What technology is required for teleworking?

- a computer with internet access
- an email account
- a mobile phone
- videoconferencing equipment



1. What are the different words that could be used instead of increase and decrease?

- Increase: Go up, improve, rise, interest, larger, profit
- Decrease: Go down, depreciate, smaller, Loss, shrink,

2. How do you find one number as a percentage of another? e.g. 4 out of $20 = \frac{4}{20} \times 100$

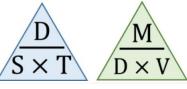
3. How do you find the best value?

- a. Find the cost of the same volume/amount/weight
- b. Find the cost of 1 (item/gram/kg etc)

4. How would I solve ratio or proportion problems?

Use a proportion grid

5. What are the speed and density formulas?



6. What is compound interest?

Repeated percentage increases or decreases

7. How would you calculate percentage profit or loss?

 $\frac{Difference}{Original\ amount} \times 100$

8. How do you know which scale to use on a protractor?

You always start from zero

9. What are the three rules of bearings?

- 1. Uses three figures (e.g. 20 degrees = 020)
- 2. Measure from north
- 3. Measure clockwise

10. What constructions do you need to know?

Perpendicular bisector, Perpendicular from a point, perpendicular to a point, Angle bisector, Triangles (SSS, SAS, ASA, RHS)

10. What do I need to keep in mind when drawing plans and elevations?

- All plans and elevations are drawn in 2d
- Draw them to scale



1. What is a linear narrative in music videos?

A narrative that works in one line or strand. The narrative works from start to finish and tells the story in one sitting without interruptions from the past or future

2. What is non-linear narrative in music videos?

Non-linear means there are interruptions in between, at the start or at the end of the music video.

3. What does CSP stand for?

Close Study Product

4. What are three marketing and advertising CSPs?

- OMO Washing powder 70s print advert
- Galaxy Chocolate Moving image advert featuring Audrey Hepburn
- NHS Blood Donation Moving image advert featuring Lady Leshur

5. What is an Icon in media?

Images that have strong associawith a person, place, idea or time.

E.g. Elvis Presley, David Beckham, @, #, peace \clubsuit symbol,

Apple

symbol.



1. Task 1a- These are the questions you need to think about for Task 1a which is worth 6 marks

- the original author/composer/choreographer and their intentions for the piece(s)
- intended mood and style/genre
- themes and ideas
- ø performance space
- 🔹 purpose
- the relationship between audience and the performer
- original target audience
- ø new target audience.

2. Task 1b- These are the questions you need to think about for Task 1b which is worth 5 marks

- What do you do already? In terms of Dance or Drama or Music
- This could be a dance school or dance lessons you attend
- It could be a talent show you take part in
- It could be acting classes/singing classes
- Learning to play the guitar at school
- Singing in the choir
- Include as much as you can about your own experiences

3. Task 2- These are the questions you need to think about for Task 2 which is worth 4 marks

- I. What is a rehearsal schedule?
- 2. Why are they important to have in place?
- 3. Research what they look like
- 4. What things do you need to rehearse?

Rehearsal	Time	Focus for that	Evidence/note
type/What	allocated	rehearsal	
Rehearsal 1 First read through with my group	45 minutes	Group read through of the extract	First read through All characters have been decided on Read through each of the parts Stage directions will be read out too so we know what is happening Think about articulation of words, meaning of any words said, how they should be said etc Make sure we can pronounce all of our lines Get to know the other actors and their strengths/areas for development Ask questions to our teacher or other cast members

4. Task 3- These are the questions you need to think about for Task 3 which is worth 10 marks

- Produce a reflective journal that records the practical rehearsal process required to ensure you are fully prepared for the performance required in the brief. Candidates should show evidence of:
- action planning
- rehearsal preparation away from the rehearsal space (e.g., line learning/familiarisation with
- score/practice of dance moves, preparing virtual instruments/sounds)
- responding to direction/choreography
- receiving and recording blocking; annotating scripts/choreographic notation/scores
- 😻 refining
- observing appropriate health and safety requirements.

Listen to instructions.No running in the drama	Ensure the stage is clicked together properly.
space.	Be aware of the space on the
🔹 No eating.	stage. Do not step back
Ensure equipment is put	without checking how close
away.	you are to the edge.
Be careful when using props	Ensure backstage is clear of
especially breakables.	obstructions.
Ensure the space is clear of	Tape any wires down- trip
obstructions.	hazard.

5. Task 4- These are the questions you need to think about for Task 4 which is worth 20 marks

- Perform/present your chosen piece(s) to an audience. Candidates should show evidence of:
- accuracy
- coordination
- communication
- 🔹 control
- dealing with mistakes; coping under pressure
- interpretation
- interpretation and development of character
- clarity of chosen acting style/genre.
- use of movement and gesture.
- use of voice
- response to text.

PHYSICAL

1. Personal Training Programme (PEP)

A PEP is designed to meet the specific needs of an individual athlete. Typically it includes:

- Introduction
- Aim the general skills or fitness you plan to improve for which sport and why.
- A profile of who the PEP is for age, sex, performance level, experience.
- A brief overview of training programme duration, frequency and type
- How you will show progress the tests and measures you will use

2. Fitness Tests

Remember you will need to remember components of fitness important to your sport, relevant fitness tests and what method of training is best to help improve your performance.

Component of Fitness	Fitness Test	Method of Training
Cardiovascular Fitness	12-minute cooper run	Continuous Training/ Fartlek Training
	Harvard Step test	
Muscular Endurance	1 minute Press up/ 1 Minutes Sit up	Weight Training - Low weight high reps/ Fitness Class Spinning/ Circuit Training
Muscular Strength	Had Grip Test	Weight Training - High weight Low reps
Flexibility	Sit and Reach	Fitness Class eg. YOGA
Power	Vertical Jump	Plyometrics Training
Speed	30m Sprint test	Interval Training
Agility	Illinois Agility Test	Circuit Training
Reaction Time	Ruler Drop Test	Circuit Training
Coordination	Hand Wall Toss	Circuit Training
Balance	Standing Stork Test	Fitness Class eg. YOGA

3. Target Setting

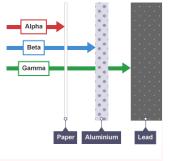
When setting targets we need to make them SMART:

- 🔹 **S** Specific,
- 🔮 M Measurable,
- 🔮 A Achievable,
- 🔮 **R** Realistic and
- 🔮 **T** Time bound.



1. What are the different radioactive particles?

- Alpha particles are very ionising, but will only travel a few centimeters in air. They are stopped by paper or skin.
- Beta particles are much less ionising than alpha so will travel a few metres in air. They are stopped by a thin sheet (3 mm) of aluminium.
- Gamma rays are much less ionising than beta particles and will travel a few km in air. They are only stopped by several meters of lead or concrete.

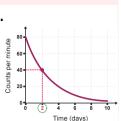


2. How are the radioactive particles produced?

- During alpha decay 2 protons and 2 neutrons are emitted.
- During beta decay a neutron changes into a proton and an electron.
- During beta⁺ decay a proton changes into a neutron and a positron.
- Ø During gamma decay electromagnetic energy is emitted.
- These decay can be represented with equations: the **mass and atomic numbers** on either side of the equation must **be equal** $235_{00} \longrightarrow 231_{00} \xrightarrow{231}_{00} \text{Th} + \frac{4}{2}\text{He}$

3. What is radioactive half-life?

- Half-life is the time taken for the radioactivity to reduce by half.
- If a radioactive source has an activity of 200 Bq and a half-life of 2 minutes, then in 4 minutes the activity will half twice-200 ÷ 2 = 100 ÷ 2 = 50 Bq
- On a graph you see how long it took for the activity to half. Here it goes from 80 to 40 cpm in 2 days.



4. What are the dangers of radioactive particles?

- Radiation can cause visible damage- red skin- due to radiation burns.
- Over a long period of time even small doses of radiation can damage the DNA inside a cell causing a mutation, this can lead to cancer.

5. How can people work safely with radioactive material?

- Some people, such as medical staff, work with radioactive sources and they have to **limit their exposure** as much as possible.
- Using tongs to hold sources to increase the distance,
- Store radioactive sources them in **lead-lined containers**.
- Keep exposure time short and monitor exposure using a dosimeter.
- If a patient is exposed as part of their diagnosis or treatment, the smallest dose possible is used and sources with a short half-life are chosen to limit the exposure time for patients.

6. How are irradiation and contamination different?

- If you are close to a radioactive source you may get irradiated, this means you are exposed to radioactive particles emitted by that source- when you move away from the source the irradiation stops.
- If you get a radioactive source on their skin (or in their hair) or inside their body, then they have been contaminated. A person who has been contaminated will continue to be exposed to radiation until the radioactive source has been removed or has all decayed.



1. What should be included in your Artist information pages?

You need to show the moderator you understand:

- Solution of Artists
- That you can interpret / recreate your own Art based on them.

2. What is a source

A source can be absolutely ANYTHING you are inspired by! Below is an example of different sources you might include in your sketchbook:

- A Theme Mind Map Mind map all the things you can think of relating to your topic! Include images if you want to.
- Mood Board Collect images linked to your theme into a moodboard annotate keywords about the images / theme.
- Artist / Designer Analysis Look at an existing artist or designer and complete an analysis of their work
- Take your own photographs You can use your own photos as a source of inspiration! Annotate them explaining how they link to your theme.

3. How to analyse a Textile Artist

- Introduce the work of your designer or artist (<u>key facts only</u>), how does their work fit into trends at the time it was produced or current trends?
- Are there any social, environmental, moral, issues surrounding your designers work?
- Consider what key features appear regularly in your designers work, why might that be?
- What colours do they use a lot of? What effect does this give?
- Who do you think their designs are aimed at? Why?
- Explain what you like / dislike about the designs and why that is.
- What techniques has the designer used? Why? Could different techniques be used to create different effects?
- How will this designer inspire your work? How does the designer fit into the theme? What techniques will you sample? Why?

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 you design inspired by any of your sources? How? Why?
- What materials would you use? Why?
- 6 How does this design link to your theme?
- What developments would you make to your designs? Why?

5. Key words:

- Form: The shape or structure of a textile, contributing to its overall appearance.
- **Pattern**: Repetitive and decorative design elements on a textile.
- Composition: The arrangement and combination of elements in a textile, creating a unified whole.
- 2D/3D Textiles: 2D textiles are flat, like fabrics, while 3D textiles have three-dimensional aspects, adding depth and structure.

