Stafford Manor High School

Every Child Reaching their Full Potential

Year 10 Autumn Term 2

Core Knowledge

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

ART

AUTUMN TERM 2 (CONTENT FROM AUTUMN TERM 1)

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 media experimentation board?

- A good range of medias such as:
  - Polyprinting
  - Monoprint
  - Clay work
  - Sgraffito, etc.
- A title which links with the board.
- Annotations that explain what you have done and why.

3. Describe what a record board is.

- A board that shows how you can draw, what medias you are capable of using and how you challenge yourself with them.

4. 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.

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

AUTUMN TERM 2 (CONTENT FROM AUTUMN TERM 1)

1. What is Meiosis?

- Meiosis is where cell division that produces gametes (sex cells)
- One cell division produces 4 **haploid** daughter cells. (23 chromosomes)
- The cells are genetically **different** to the parent cell.

2. What is the structure of DNA?

- Double helix.
- 4 complementary bases (Adenine-Thymine, Cytosine–Guanine).
- Bases joined together by weak Hydrogen bonds.
- Sugar Phosphate backbone.

3. How do we extract DNA from fruit?

- **Mash** (break down cell walls) → **Mix** (release the DNA) → **Heat** → **Filter** (to remove insoluble material)→ **Cool** → **Precipitate** by adding ethanol (to make the DNA visible.)

4. What are the key words in inheritance?

- **Allele** – Version of a gene
- **Heterozygous** – Different alleles
- **Homozygous** – Same Alleles
- **Recessive** – Needs 2 to be visible in phenotype. (lower case)
- **Dominant** – Only needs one to be present. (Capital letter).
- **Phenotype** – Visible characteristics
- **Genotype** – Combination of alleles that code for the phenotype.

5. How to use a punnett square.

- Add parental genotypes.
- Complete offspring genotypes.
- T – tall t short
- 50% tall (Tt) and 50% short (tt)

	T	t
t	Tt	tt
t	Tt	tt

6. How can you predict inheritance of Sex?

- Female alleles are XX and male alleles are XY.
- 50% chance of male offspring and 50% chance of female.

7. What is the difference between environmental and genetic variation?

- Environmental variation is caused by changes in the environment, e.g. scar, accent, tattoo.
- Genetic variation is inherited, e.g. eye colour, blood type, sickle cell anaemia.

BUSINESS

AUTUMN TERM 2 (CONTENT FROM AUTUMN TERM 1)

1. Why do business ideas come about?

Because of…

- changes in technology
- changes in what consumers want
- products and services becoming obsolete

2. Where do business ideas come from?

- A completely original idea (invention)
- Adapting an existing idea (innovation)

3. What are examples of adaptations to products?

- New flavours
- Different colours
- Online access
- Personalisation

4. Why might a business fail?

- An entrepreneur does not know the market well enough
- Not having enough capital to start the business
- Poor decision making
- Competition from other businesses
- Not meeting the needs of customers

5. How can a business add value to a product?

- Branding (creating an image for a product)
- Quality (eg using better quality ingredients than competitors)
- Design (unique features)
- Convenience (it saves the customer time)

6. What are customer needs?

- Price
- Quality
- Choice
- Convenience
- Good service
- Design

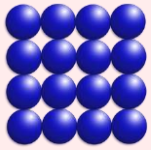
7. What are the main purposes of market research?

- To identify and understand customer need
- Identify market gaps
- Reduce risk
- Inform business decisions

CHEMISTRY

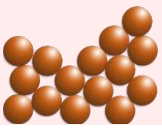
AUTUMN TERM 2 (CONTENT FROM AUTUMN TERM 1)

1. Movement and arrangement of particles in a solid:



- **Movement**: Vibrating about a **fixed position**
- **Arrangement**: **Regular** pattern and **touching**

2. Movement and arrangement of particles in a liquid:



- **Movement**: Can move / **flow**
- **Arrangement**: **Random** pattern and **touching**

3. Movement and arrangement of particles in a gas:

- **Movement**: Moving fast in **all directions**
- **Arrangement**: **Random** pattern and **not touching**

4. What are the main state changes?

- **Melting**: Solid turning into a liquid (e.g. ice melting)
- **Freezing**: Liquid turning into a solid (e.g. water turning into ice)
- **Evaporating**: Liquid turning into gas (e.g. water turning into steam)
- **Condensing**: Gas turning into liquid (e.g. condensation on windows)

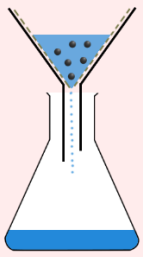
5. What do the words '**soluble**' and '**insoluble**' mean?

- **Soluble**: Something that will dissolve (e.g. salt)
- **Insoluble**: Something that will not dissolve (e.g. sand)

6. How do you carry out filtration?

Key trigger: **insoluble** or **undissolved**
Key Steps: **Tip** → **Filter funnel** → **Filter paper** → **Remain**

Example: *During a chemical reaction, copper carbonate is added to nitric acid. At the end of the reaction, a solution of copper chloride contains bits of undissolved copper carbonate. Describe how to remove the copper carbonate.*

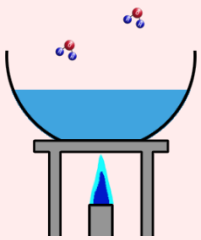


- **Tip** the solution into a **filter funnel** with **filter paper** in it. The copper carbonate will **remain** in the filter paper.

7. How do you carry out crystallisation?

Key trigger: **soluble**, **crystals** or **dissolved**
Key Steps: **Heat** → **Evaporate** → **Crystals** → **Dry**

Example: *During a chemical reaction, copper carbonate is added to nitric acid. At the end of the reaction, a solution of copper chloride forms. Describe how to produce pure, dry crystals of copper chloride.*



- **Heat** the solution and **evaporate** ½ of the water. Leave to cool so that **crystals** of copper chloride form. **Dry** the crystals using filter paper.

DESIGN TECHNOLOGY

AUTUMN TERM 2 (CONTENT FROM AUTUMN TERM 1)

1. New and Emerging Technologies

- **Industry** - The impact of new and emerging technologies on: the design and organisation of the workplace, including automation and the use of robotics, buildings and the place of work tools and equipment.
- **Enterprise -** based on the development of an effective business innovation: crowd funding, virtual marketing and retail, co-operatives fair trade.
- **Sustainability** - The impact of resource consumption on the planet: finite, non-finite, disposal of waste
- **People -** How technology push/market pull affects choice. Changing job roles due to the emergence of new ways of working driven by technological change.
- **Culture -** Changes in fashion and trends in relation to new and emergent technologies, respecting people of different faiths and beliefs.
- **Society** - How products are designed and made to avoid having a negative impact on others: design for disabled, elderly, different religious groups.
- **Environment** - Positive and negative impacts new products have on the environment: continuous improvement, efficient working, pollution, global warming.
- **Production techniques and systems** - The contemporary and potential future use of: automation, computer aided design (CAD), computer aided manufacture (CAM), flexible manufacturing systems (FMS), just in time (JIT), lean manufacturing.
- How the critical evaluation of new and emerging technologies informs design decisions - That it is important to consider scenarios from different perspectives and considering: planned obsolescence, design for maintenance, ethics, the environment.

2. Energy generation and storage

- **Fossil fuels** - How power is generated from: coal, gas, oil. Arguments for and against the selection of fossil fuels.
- **Nuclear Power** - How nuclear power is generated. Arguments for and against the selection of nuclear power.
- **Renewable Energy How power is generated from** - wind, solar, tidal, hydro-electrical, biomass. Arguments for and against the selection of renewable energy.
- **Energy storage systems including batteries** - Kinetic pumped storage systems. Alkaline and re-chargeable batteries.

3. Developments in new materials

- **Modern materials** - Developments made through the invention of new or improved processes eg Graphene, Metal foams and Titanium. Alterations to perform a particular function eg Coated metals, Liquid Crystal Displays (LCDs) and Nanomaterials.
- **Smart Materials -** That materials can have one or more properties that can be significantly changed in a controlled fashion by external stimuli, such as stress, temperature, moisture, or PH eg shape memory alloys, thermochromic pigments and photochromic pigments
- **Composite materials -** That composite materials are produced by combining two or more different materials to create an enhanced material eg glass reinforced plastic (GRP) and carbon fibre reinforced plastic (CRP).
- **Technical Textiles -** How fibres can be spun to make enhanced fabrics eg conductive fabrics, fire resistant fabrics, Kevlar and microfibres incorporating micro encapsulation

4. Systems approach to designing

- **Inputs** - The use of light sensors, temperature sensors, pressure sensors and switches.
- **Processes** - The use of programming microcontrollers as counters, timers and for decision making, to provide functionality to products and processes.
- **Outputs -** The use of buzzers, speakers and lamps, to provide functionality to products and processes

5. Structure of the Non- Examined Assessment

- Understanding the mark scheme and how it is applied in the context given
- AO1 A – Identifying and investigating Design possibilities
- AO1 B – Producing a design brief and specification
- AO2 C – Generating design ideas
- AO2 D – Developing design ideas
- AO2 E – Realising design ideas
- AO3 F – Analysing and evaluating

ENGLISH

AUTUMN TERM 2 (CONTENT FROM AUTUMN TERM 1)

1. List two similes to describe Scrooge in Stave 1

- As hard and sharp as flint / As solitary as an oyster

2. Why is Jacob Marley in the story?

- Marley is a reflection of the darker aspects of human nature. The chains that Marley drags with him are symbols of his greed and the choices he made. He is a warning to Scrooge.

3. Name three visions Scrooge is shown by The Ghost of Christmas Past.

- Scrooge as a boy at school
- Scrooge as an apprentice, working for Fezziwig
- Belle, breaking off their engagement
- Belle with a family of her own

4. What does 'allegory' mean?

- It is a story that can be interpreted to reveal a hidden meaning, typically a moral or political one.

5. Who was Thomas Malthus? What did he believe?

- 1798, Thomas Malthus wrote that the human population would grow faster than food supplies leading to famines and death. Malthus believed poverty was the result of overpopulation.
- Malthus believed people should families in later life and not have too many children.
- Dickens believed Malthus was wrong. He believed there was plenty of food to go around but only if the rich were more generous. Dickens felt it wrong the poor should suffer because the rich were too selfish to share their wealth.
- Malthus thought existing poor laws in Britain were too charitable. Poverty relief, he believed, encouraged laziness in the poor and reduced the incentive to work hard and save money.
- In 1834 a new Poor Law was introduced to reduce the financial help available to the poor. It also ruled that all unemployed people would have to enter a workhouse in order to receive food and shelter. Conditions in workhouses were unpleasant to discourage the poor from relying on society to help them.

6. Why does Belle release Scrooge from their engagement?

- His obsession with wealth has replaced his love for her, and she realizes he now values money over their relationship

7. The Ghost of Christmas Past has a light emitting from its head. What does this symbolise?

The light that comes from the ghost's head shines a light on the shadows of Scrooge's history and may represent self-discovery or goodness and truth.

8. What does 'Parsimonious' mean?

Someone who is greedy with their money**.**

9. What is philanthropy?

- It is the desire to promote the welfare of others, especially by generous donations to good cause.

FRENCH

AUTUMN TERM 2 (CONTENT FROM AUTUMN TERM 1)

1. How can I describe my family? Ma famille et moi!

- Adorer: to love
- Aimer: to like, to love
- Casse-pieds: annoying
- Le chat: cat
- Le chien: dog
- Le / la cousin(e): cousin
- Le demi-frère: half / step-brother
- La demi-sœur: half / step-sister
- Détester: to hate
- Divorcé(e): divorced
- La famille monoparentale: single-parent family
- Le frère: brother
- La grande sœur: big sister
- La grand-mère: grandmother
- Le grand-père: grandfather
- Les grands-parents (m): grandparents
- Habiter: to live
- Le lapin: rabbit
- La mère: mother
- Mon, ma, mes: my
- Le nom: name
- Les parents (m): parents
- Le père: father
- Le petit frère: younger brother
- La sœur: sister

2. How can I describe my family and friends? Ma famille et mes amis!

- L'ami(e): friend
- Amusant(e): funny
- Bien s'entendre avec: to get on well with
- Le / la copain / copine: pal, mate
- Critiquer: to criticise
- Désagréable: unpleasant
- Difficile: difficult
- Se disputer: to argue
- Drôle: funny
- Égoïste: selfish
- En commun: in common
- En / de plus: moreover
- Le / la fils / fille unique: only son / daughter
- Généreux(-se): generous
- Gentil(le): kind
- Le goût: taste, interest
- Il / elle m'énerve: he / she gets on my nerves
- Intelligent(e): intelligent
- Jaloux(-se): jealous
- Laisser: to let
- Méchant(e): naughty, nasty
- Mignon(ne): cute
- Paresseux(-se): lazy
- Parfois / quelquefois: sometimes
- Le petit ami: boyfriend
- La petite amie: girlfriend
- Le petit copain: boyfriend
- La petite copine: girlfriend
- Sévère: strict
- Sortir: to go out
- Souvent: often
- Sympa nice
- Timide: shy
- Vraiment: really

GEOGRAPHY

AUTUMN TERM 2 (CONTENT FROM AUTUMN TERM 1)

1. What is a hazard?

- Hurricanes, tornadoes, volcanoes, earthquakes, landslides, floods, lighting, drought, meteorological and geological.

2. Explain the theory of continental drift.

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

3. Describe the types of hazards caused by tectonic plate movements.

- Constructive plate margin
- Destructive plate margin
- Conservative plate margin
- Collision plate margin

4. What are earthquakes and how are they measured?

What are they:

- Focus → epicentre → shock waves → magnitude.

Measured:

- Richter Scale
- Mercalli Scale

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

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

6. Explain how Haiti responded to the effects of the earthquake.

- Aid supplied by USA.
- Red Cross.
- United Nations – Security.
- World Bank.
- Cash for work schemes.

8. Explain how Kobe responded to the effects of the earthquake.

- Jobs for reconstruction
- Friends and neighbours
- 1.2 million volunteers
- Shock proof buildings
- Temporary shelters.

HEALTH & SOCIAL CARE

AUTUMN TERM 2 (CONTENT FROM AUTUMN TERM 1)

1. What are the 6 life stages and ages?

- Infancy (0-2 years)
- Early Childhood (3-8 years)
- Adolescence (9 – 18 years)
- Early Adulthood (19-45 years)
- Middle Adulthood (45-65 years)
- Later Adulthood (65 years +)

2. What is the difference between growth and development?

- Growth means the increase in a **measurable quantity** such as **height**, **weight** or other dimensions.
- Development is about the complex changes in **skills** and **capabilities** that an individual experience as they grow. Development is observed, not measured.

3. What are the 4 areas of development and what do they mean?

- **Physical development** refers to growth and other physical changes that happen to our body throughout life.
- **Intellectual development** refers to the development on language, memory and thinking skills.
- **Emotional development** refers to the ability to cope with feelings about ourselves and towards others.
- **Social Development** refers to the ability to form friendships and relationships, and to learn to be independent.

HISTORY

AUTUMN TERM 2 (CONTENT FROM AUTUMN TERM 1)

1. Who had the most power in Medieval England?

- The King, nobility and Church.

2. What dictated the economy in Medieval England?

- The economy was **rural** and relied on **farming**.

3. Why did the Jews migrate to England?

- They were invited to be moneylenders.

4. What is a blood libel?

- Killing Christian children as part of religious rituals

5. Which monarch began raising taxes on the Jews?

- Henry III

6. When was the Statute of Jewry passed?

- 1275

7. When did Edward I expel Jews from England?

- 1290

8. What was the impact of Flemish weavers?

- They helped transform England from a rural economy to a manufacturing economy.

INFORMATION TECHNOLOGY

AUTUMN TERM 2 (CONTENT FROM AUTUMN TERM 1)

1. What is an input device?

- A piece of equipment that allows data to be entered into a computer
- Examples: mouse, keyboard, digital camera, scanner, tablet, microphone, sensor

2. What is an output device?

- A piece of equipment that allows users to retrieve data from a computer (audio, visual or physical)
- Examples: monitor, speakers, headphones, printer, projector

3. What is a storage device?

- A device that saves and keeps data.
- They can be internal or external
- Examples: hard disk drive, dvd, solid state storage, cloud

4. What are the basic internal components of a computer?

- Motherboard
- Network interface card
- Sound card
- Graphics card
- CPU (Central Processing Unit)
- Ports

5. What is an application?

- Software that is installed on top of the operating system, such as MS Word, Firefox or Minecraft

6. What is a driver?

- Software that allows the operation system and a device to communicate with each other

7. What does GUI stand for?

- Graphical User Interface

MATHEMATICS

AUTUMN TERM 2 (CONTENT FROM AUTUMN TERM 1)

1. What do the words median, mode, mean and range mean?

- **Median**: The middle of an ordered list of items
- **Mode**: The most common item in a list
- **Mean**: Add together then divide by how many there are
- **Range**: The biggest value take away the smallest

2. How do you calculate the mean from a table?

- If the data is grouped, find a midpoint. Multiply each midpoint by the frequency. Add these values together. Divide by the sum of the frequency.

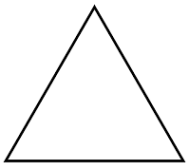
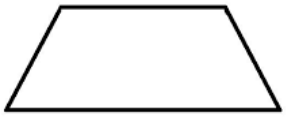
3. How do you calculate the median from a table?

- Find the median position by adding one to the total frequency then dividing by two. Count through the frequencies to find this value. This group contains the median.

4. Key word definitions:

- **Ascending**: Ordering from smallest to largest
- **Descending**: Ordering from largest to smallest
- **Spread**: How close together items are
- **Class**: A group of data, eg: $15 < x \leq 20$

5. How do you calculate the area of different shapes?

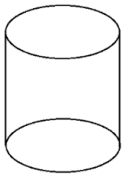
Rectangle:	Triangle	Parallelogram	Trapezium
			
Base x height	Base x height divided by 2	Base x perpendicular height	Add the parallel sides, multiply the height then divide by 2

6. What is the difference between surface area and volume?

- **Volume:** The amount of space that a solid shape takes up (measured in cubes)
- **Surface Area:** The area of all of the faces of a 3D shape added together (measured in squares)

7. What are prisms and cylinders?

- A prism is a 3D shape with the same cross section throughout.
- Volume of a prism = area of cross section x length
- A cylinder is a prism with a circular cross section.



MEDIA

AUTUMN TERM 2 (CONTENT FROM AUTUMN TERM 1)

1. What does denotation mean?

- Elements that are arguable, the factual elements that we all agree.

2. What does connotation mean?

- Elements that are arguable, elements that are personal to the viewer.

3. What is consumption?

- Audiences reading, listening or watching a media product

4. What does reading an image mean?

- The effect that a media image has on audiences; what they understand from the media product

5. What does analysis mean?

- Breakdown of an image or idea; an explanation of why we believe something to be so

6. What is context?

- The elements, ideas and beliefs surrounding a media product that provides additional understanding

7. What is an icon?

- Images that have strong associations with a person, place, idea or time

8. What does polysemics mean?

- The idea that images and colours may be open to different interpretations

9. What does anchorage mean?

- Anchorage is when one element of a media product uses a different element of media to reinforce a specific idea

10. What does culture mean?

- The ideas, customs and social behaviour of a particular people or society

11. What is mise-en-scene?

- Everything in the frame of a shot in a tv show or film

12. What does point of view mean?

- Where the camera places the audience in relation to the action in a shot

PERFORMING ARTS

AUTUMN TERM 2 (CONTENT FROM AUTUMN TERM 1)

DRAMA ROUTE

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 style of performance did Constantin Stanislavski use?

- The actor must use his ***imagination*** to be able to answer all questions (when, where, why, how).
- Believed that the audience should ***emotionally*** connect with the characters.
- Actors should use their ***own experience*** to make their characters as believable as possible.

3. Name 6 techniques used by Constantin Stanislavski

The fourth wall	Emotional Memory	The Magic IF
Sense Memory	Objectives	Given Circumstances

4. What style of performance did Bertolt Brecht use?

- 'Art is not a mirror to reflect reality, but a hammer with which to shape it.'
- Believed that theatre should be used to spread a message and comment on society.
- The audience should always be aware they are watching a play and constantly questioning what they see.

5. Name 6 techniques used by Bertolt Brecht

Breaking the 4th wall	Alienation effect	Multirole
Minimal set/props	Use of masks	Use of placards

6. What are "genres" in performing arts?

- The genre refers to the type or style.
- This is important for the actors to know what the performance will be about and for the audience to decide if they wish to watch that performance style.

Examples:

- Action
- Adventure
- Comedy
- Drama
- Horror
- Musical
- Mystery
- Romantic
- Romantic Comedy
- Sci-fi
- Soap
- Thriller
- Tragedy

7. What are "themes" in performing arts?

- Themes refer to what the performance is about.
- You may find many different themes running through a performance.

Examples:

- War
- Crime
- Bullying
- Revenge
- Sacrifice
- Death
- Love
- Hate
- Desire
- Jealously
- Witchcraft
- Magic

8. What are the roles and responsibilities of actors?

- Learn lines, work with other actors, be punctual, attend auditions, keep their voice in good health, work with the director and production team.

9. What are the roles and responsibilities of dancers?

- Keep fit and healthy, attend auditions, learn new dance pieces, work with the director and other dancers, work as a team, listen to instruction.

10. What are the roles and responsibilities of directors?

- Work as a team, be punctual, listen to everyone's thoughts, cast people for the show, work closely with the producer, have a vision and be able to share it, be professional at all times.

11. How can we be safe when performing?

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

PERFORMING ARTS

AUTUMN TERM 2 (CONTENT FROM AUTUMN TERM 1)

MUSIC ROUTE

1. How are the following techniques used in performances?

1. Dynamics

2. Articulation

3. Phrasing

4. Tempo

5. Techniques for Specific Instruments

6. Vocal Techniques

7. Interpretive Techniques

8. Collaborative Techniques

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- Actors should use their ***own experience*** to make their characters as believable as possible.

3. Name 6 techniques used by Constantin Stanislavski

The fourth wall	Emotional Memory	The Magic IF
Sense Memory	Objectives	Given Circumstances

4. What style of performance did Bertolt Brecht use?

- 'Art is not a mirror to reflect reality, but a hammer with which to shape it.'
- Believed that theatre should be used to spread a message and comment on society.
- The audience should always be aware they are watching a play and constantly questioning what they see.

5. Name 6 techniques used by Bertolt Brecht

Breaking the 4th wall	Alienation effect	Multirole
Minimal set/props	Use of masks	Use of placards

6. What are "genres" in performing arts?

- The genre refers to the type or style.
- This is important for the actors to know what the performance will be about and for the audience to decide if they wish to watch that performance style.

Examples:

- Action
- Adventure
- Comedy
- Drama
- Horror
- Musical
- Mystery
- Romantic
- Romantic Comedy
- Sci-fi
- Soap
- Thriller
- Tragedy

7. What are "themes" in performing arts?

- Themes refer to what the performance is about.
- You may find many different themes running through a performance.

Examples:

- War
- Crime
- Bullying
- Revenge
- Sacrifice
- Death
- Love
- Hate
- Desire
- Jealously
- Witchcraft
- Magic

8. What are the roles and responsibilities of actors?

- Learn lines, work with other actors, be punctual, attend auditions, keep their voice in good health, work with the director and production team.

9. What are the roles and responsibilities of dancers?

- Keep fit and healthy, attend auditions, learn new dance pieces, work with the director and other dancers, work as a team, listen to instruction.

10. What are the roles and responsibilities of directors?

- Work as a team, be punctual, listen to everyone's thoughts, cast people for the show, work closely with the producer, have a vision and be able to share it, be professional at all times.

11. How can we be safe when performing?

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

PHYSICAL EDUCATION

AUTUMN TERM 2 (CONTENT FROM AUTUMN TERM 1)

1. State the definition for "health"

- A state of complete **emotional**, **physical** and **social** wellbeing and not merely the absence of disease.

2. State some of the benefits of exercise on physical health:

Burns calories	Strengthens bones	Reduces blood pressure

3. State some of the negative effects of exercise:

- Over exertion can cause increased blood pressure / heart attacks.
- Overuse injuries such as tennis elbow can occur.

4. State some of the benefits of exercise on mental health:

- Takes your mind off your problems and relieves stress.
- Increases serotonin levels, reducing depression.
- Can be enjoyable/fun and reduce boredom.

5. State some of the negative effects of exercise on mental health

- An injury can lead to depression as you are unable to train.
- Sport can lead to frustration, anger and anxiety.

6. State some of the benefits of exercise on social health

- We can meet new people / make new friends as well as meeting current friends.
- It can improve our cooperation skills and social skills.
- A child may develop their social skills and an elderly person may prevent loneliness from regular exercise.

7. State some of the negative effects of exercise on social health

- Some performers may spend too much time training and less time with their families.

8. State the five sections of a training programme:

Aim	**Design**	**Develop**	**Monitor**	**Evaluate**

9. Describe the difference between anorexia and obesity:

- **Anorexia**: Not eating enough. Effects: little energy / tired / weak.
- **Obesity**: Eating too much. Effects: lack of mobility / joint problems.

10. Why should teenagers get 8-10 hours of sleep per night?

- Lack of sleep leads to tiredness, meaning your performance drops.

11. State some effects of drinking alcohol and smoking.

Smoking:	**Alcohol:**
Bronchitis	Heart failure
Heart disease	Increased blood pressure
Lung Cancer	Liver disease

12. Define fitness, exercise and performance:

- **Fitness**: The ability to meet the demands of the environment.
- **Exercise**: A form of activity done to maintain and improve health or physical fitness. It is not competitive sport'.
- **Performance**: How well a task is performed'.

13. Why is fitness testing important?

- Fitness testing is first carried out at the start of a fitness plan to **establish fitness levels**.
- It is used to identify strengths and weaknesses as well as planning and setting **targets**.
- A fitness test is also carried out during/after a programme to check for **improvements** and test for **effectiveness**.

14. State some examples of fitness tests:

- 12-minute Cooper Run.
- 12-minute Cooper swim.
- Harvard step test.
- 30m sprint.
- Sit and Reach.
- Illinois ability run.
- Grip dynamometer.
- Vertical Jump.

15. Key definitions:

- **Agility**: The ability to change position of the body quickly while maintaining control of the movement.
- **Balance**: The ability to retain the body's centre of mass above the base of support.
- **Body composition**: The relative ratio of fat mass to fat-free mass in the body.
- **Cardiovascular fitness**: The ability to exercise the entire body for long periods of time without getting tired.
- **Coordination**: The ability to use two or more body parts together.
- **Muscular Endurance**: The ability to exercise the voluntary muscles many times without getting tired.
- **Flexibility**: The range of movement possible at a joint.
- **Power**: The ability to do strength performances quickly.
- **Reaction Time**: The time taken to respond to a stimulus.
- **Speed**: The amount of time it takes to perform a particular action or cover a particular distance.
- **Strength**: The amount of force a muscle can exert against a resistance.

PHYSICS

AUTUMN TERM 2 (CONTENT FROM AUTUMN TERM 1)

1. What are waves?

- Waves are vibrations that transfer **energy**, they do not transfer matter (particles)

2. What are transverse waves?

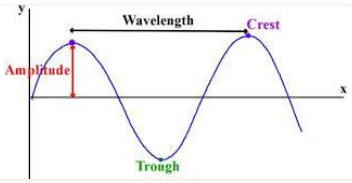
- Examples: Light, radio waves, microwaves and X-rays.
- The **vibrations** are **at right angles** to the **direction** that the wave **travels**

3. What are longitudinal waves?

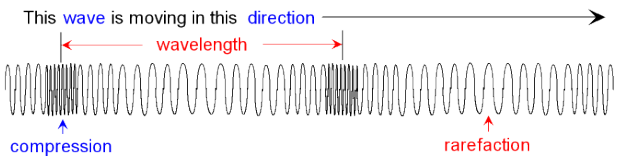
- Examples of longitudinal waves include sound waves
- The **vibrations** are **parallel** to the **direction** the wave **travels**

4. What do waves look like?

Transverse waves



Longitudinal waves



- The frequency of a wave is the number of waves that pass a point every second. We measure frequency in hertz (Hz)
- The period of a wave is the time taken to complete one full wave.

5. How can we calculate wave speed?

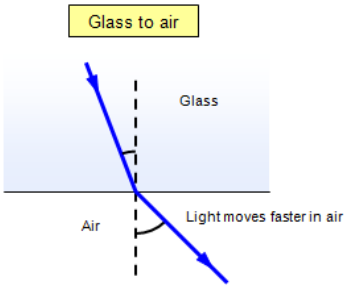
- Wave speed (m/s) = distance (m) ÷ time (s)
- Wave speed (m/s) = frequency (Hz) x wavelength (m)

6. How can we investigate wave speed?

- To measure **distance**: **ruler** (short) or **trundle wheel** (long)
- To measure **time**: **stopwatch** (time must be longer than 1s).
- To measure **wavelength**: **length of 10 waves ÷ by 10**.
- To measure **frequency**: count the **number of waves** passing a point **in 10 seconds** and **divide by 10**.

7. What is the refraction of light?

- An **interface** is the boundary between two materials.
- As light passes from air into glass it slows down and **refracts** towards the normal
- As light passes from glass into air it speeds up and **refracts** away from the normal



SEL

AUTUMN TERM 2 (CONTENT FROM AUTUMN TERM 1)

1. **Positive** things about starting Key Stage 4 include:

- More independence
- New classes and subjects
- Can drop subjects you don't like
- Can go out with friends more independently
- Planning for the future
- Less supervision
- More confident in who you are

2. The word **resilience** means:

- **Resilience:** A skill that helps people to recover quickly from difficulties to adapt to adversity through adopting effective coping strategies.

3. **Strategies** to improve emotional wellbeing are:

- Relaxation techniques
- Following interests and hobbies
- Keeping active
- Getting outside in nature
- Asking for help
- Online mindfulness (stress and anxiety apps)
- Exercises to promote relaxation e.g. yoga
- Getting plenty of good quality sleep
- Spending time with family and friends

4. Common **mental health conditions** include:

- Anxiety
- Depression
- Stress

5. **Support available** to young people suffering with mental health concerns are:

- Friends
- Family
- Teachers and other members of school staff
- Online Support organisations
- Local charities/phone lines
- Medical professionals

6. How is mental health **portrayed in the media**?

- Distressing and triggering topics
- Offer different perspectives on people's lives
- Positive and negative role models
- Create stereotypes

TEXTILES

AUTUMN TERM 2 (CONTENT FROM AUTUMN TERM 1)

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
• Pencils • Collage • Watercolours • Paints • Chalk Pastels	• Charcoal • Fine liners • Pen • Artist Markers • Photoshop (CAD) • Photographs	• Written – pen / pencil • Bullet points / key words / paragraphs • Typed up on the computer