# Knowledge Organiser



9

YEAR

European Day of Languages work by Jasleen Ahluwalla and Harry Burgess

THE ENGAGED MIND STAYS SHARP. Be engaged in the here and now.

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# Equipment

all students must have...



Mobile phones are not to be used in lessons without staff permission No photos or videos to be taken without permission No school related images or videos to be uploaded on to social media Black or blue pen Pencils Ruler - 30cm Protractor Compass Rubber Pencil Sharpener Purple pen Scientific calculator Coloured crayons Student Organiser Knowledge Organiser Locker Key 2

# Knowledge Organisers at Redmoor Academy

#### Why do we have knowledge organisers?

Your knowledge organisers help you to be successful in many ways. Firstly, they make the key elements of each topic clear, showing you what you need to have an excellent understanding of in order to be successful. If you know these elements, your teacher will help you to understand them.

#### What are my teachers' expectations of me?

In Year 7 and 8 your teachers will give you homework. You will be spending 20 minutes a week learning information from your knowledge organiser for each subject, with Sparx used for Maths and Literacy. In Year 9 this will increase to 30-40 minutes. Teachers will test you regularly to make sure that you are completing the homework and remembering your knowledge.

#### How will my teachers use them?

WHAT?

Core subjects will set homework once a week (others less often). This will help you to learn the most important knowledge for each topic. Teachers will also test you regularly to see how well you have remembered it. Research tells us that this practising is a really good way of helping you make sure that the knowledge stays in your memory. Over time, you will build on this knowledge to make sure that you know everything you need to for your subject. Sometimes you may have high stakes quizzes, where teachers will set a certain score that you have to reach to be successful.

#### How will they help me to be successful later on?

When it comes to GCSEs, you have lots of information to remember. Your knowledge organisers will gradually build up this knowledge over 5 years to help support you in Year 11. This means that when you revise you will just be recalling knowledge that you have already stored. Also, all of this practice with lots of different revision techniques now will help you when it comes to your final exams.

# How we learn at Redmoor



Why reviewing your learning is so important

As soon as we are told a new piece of information, most of that information is 'lost' and forgotten. Hermann Ebbinghaus found that repeating information helps us remember more of it. This means we need to be reviewing and going over what we learn in order for us to remember and be able to use the information after a period of time has passed.

This resource summarises some proven strategies that you can use to review your knowledge.

### Retrieval practice

Testing what you know is a powerful tool in revision; the effort to remember something really strengthens your memory. Apps such as Memrise and Quizlet allow you to use or create your own quizzes based on topics. Create them, test yourself or get someone to test you. It works!

Learn more about retrieval practice here: <u>Link to the Learning</u> <u>Scientists</u>

# THINK HARD, WORK HARD, GO FAR

Common methods of revision that are the **least effective**:

- Highlighting key points
- Re-reading
- Summarising texts



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# How we learn at Redmoor

### Flash Cards

You can use these simply to create questions on one side and answers on the other. You might colour-code the cards for specific topics, and even include keywords and timelines.

Once you have created your flashcards you need to think about how you will use them effectively. There is a link below to a video helping you understand the Leitner system of using flashcards: YouTube: The Leitner Method



### Dual Coding



**Dual coding** is the process of combining verbal materials with visual materials. You simply take information that you are trying to learn and draw visuals to go with it.

You can learn more about dual coding here: Link To The Learning Scientists

Try to come up with different ways to represent the information. For example, you could draw a timeline, a cartoon strip or a diagram of parts that work together.

### **Cornell Notes**

This method can be used in your revision books as a great method to get you to 'think' about your revision. You simply split your page into 3 sections as shown on the diagram below:

- Note Taking
- Key words / concepts
- Summary



# How we learn at Redmoor

### Spacing and Interleaving

You shouldn't revise all of your topics in one go this is called cramming. Instead, you should revise 'chunks' of a topic for small amounts of time, spending around 15-30 minutes on each. Your should then move onto another 'chunk' from a different topic.

Eg. topic 1 is 'cells', topic 2 is the 'digestive system'. This will improve your memory!



### Mind Maps

**Mind mapping** is simply a diagram used to visually represent or outline information. It is a powerful graphic technique you can use to translate what's in your **mind** into a visual picture.

Mind maps help with memorisation of key knowledge as they help to organise information and allow you to begin to make links and connections to different pieces of information. The use of visual images helps your brain to memorise the information with simple words next to them

- and this links to dual coding!



Useful links:

- The learning scientists: <u>https://www.learningscientists.org/</u>
- Memrise: <u>https://www.memrise.com/</u>
- Quizlet: <u>https://quizlet.com/en-gb</u>
- Seneca: <u>https://www.senecalearning.com/</u>



# THINK HARD, WORK HARD, GO FAR

### **Literacy** Proofreading Guidance

#### Full Stops & Commas

- A full stop gives a strong pause. It goes at the end of a whole sentence.

e.g. Jake had four brothers. He got on best with Dan who shared his sense of humour.

- A comma gives a short pause and is used to separate items in a list e.g. Bring some milk, eggs, butter and flour.

After introductory words e.g. However,

Between the different parts of a sentence: *Gran, who had* been a champion boxer in the sixties, stepped forward.

#### Paragraphs

- Change in time, e.g. Later that day, an important letter arrived. -Change in place, e.g. Back at home things were just as bad. / Chile, however, has a population of...

- Change of subject, e.g As well as mountain biking, I also enjoy swimming...

- Each time a different person speaks:

"Hey, that's my phone!" "No it isn't - I had it for my birthday." When we write, we know what we're trying to say, so our brains might skip out words or punctuation. It is important that we proofread to avoid making silly mistakes.

#### Spelling Homophones

Words that sound the same but are spelt differently.

**there , their , they're** They're silly to have left their coats over there where there is wet grass.

your , you're You're such a good friend to lend me your phone.

**to , two , too** Two of my friends are coming to Alton Towers too.

#### <u>Grammar Errors</u>

I have played tennis. ✓ I of played tennis. X I should have / should've played tennis.

I should of played tennis. X

I/she/he were late. 🗙 I/she/he was late.

They were late. ✔ They was late. Ⅹ You were late. ✔ You was late. Ⅹ

I ran quick, passing the ball brilliant. I played amazing. X I ran quickly, passing the ball brilliantly. I played amazingly. ✓

#### <u>Apostrophes</u>

- Use an apostrophe to show possession e.g. John's football is flat.

- Also use an apostrophe for omissions (the apostrophe shows where a letter or letters are missing) e.g. I didn't do it. It wasn't me!

#### Capital Letters

At the start of every sentence
For days, months and celebrations,
e.g. Wednesday, April, Easter
For proper nouns (names of people and places) e.g. James, London, Rutland Water
For Titles (except the small words) e.g. The Hunger Games, Match of the Day
For abbreviations e.g. BBC, RSPCA

#### Correct Tense

Are you using the correct tense? Do not switch from one to another. - For days, months and celebrations,

- Past: e.g. I ran to the shops.
- **Present:** e.g. I am running to the shops
- Future: e.g. I am going to run to the shops.

### Literacy Marking Code:

| sp    | Spelling mistake           |  |
|-------|----------------------------|--|
| ۸     | Missing word/letter        |  |
| 0     | Capital letter/Punctuation |  |
| ~~~~~ | Unclear/poorly worded      |  |
| //    | New paragraph              |  |
| th    | Use a thesaurus            |  |
| w     | Wrong word                 |  |

### Redmoor English Department: Romeo and Juliet

| BIG QUESTION: To what extent is 'Romeo and Juliet' a tragedy?   |   |  |
|---|---|--|
| Aristotle   | An ancient Greek philosopher who first defined what a tragedy is                    |  |
| Tragedy   | A play dealing with tragic events and having an unhappy ending, usually a death     |  |
| Fate  | The belief that your life is mapped out for you, and you cannot change your destiny |  |
| Tragic HeroA character who starts the play well respected but<br>cause their own downfall and demise due to their<br>fatal flaw |   |  |
| Fatal Flaw         A trait of the tragic hero's personality which causes their downfall and death                               |   |  |
| Catharsis A feeling of emotional release  |   |  |

| Structure                            | The order in which the events in a story occur.   |  |
|--------------------------------------|---|--|
| Prologue                             | A speech addressed to the audience at the beginning of play. It tells the audience what happens   |  |
| 5 Act Play                           | A five-part structure of a play: prologue, rising action climax, falling action and denouement  |  |
| Dramatic Irony                       | When the audience know something the characte do not  |  |
| Foreshadowing                        | When the writer hints at what's to come later in the story  |  |
| Sonnet                               | A 14-line poem, usually about love  |  |
| Soliloquy                            | When a character gives a speech alone so the audience can hear their thoughts and ideas   |  |
| Stage Directions                     | Instructions given from the writer to the actors about what to do, where to move or how to speak  |  |
| BIG QUESTION: How                    | v does Shakespeare use language to create meaning?  |  |
| Oxymoron                             | A figure of speech where a writer combines two ideas which are opposites  |  |
|                                      | ideas which are opposites   |  |
| Metaphor                             | A figure of speech that is used to make a comparis<br>between two things that aren't alike but have<br>something in common  |  |
| Metaphor<br>Foresahdowing            | A figure of speech that is used to make a comparis<br>between two things that aren't alike but have<br>something in common<br>Hinting at events to come later in the text   |  |
| Metaphor<br>Foresahdowing<br>Imagery | A figure of speech that is used to make a comparis<br>between two things that aren't alike but have<br>something in common<br>Hinting at events to come later in the text<br>Descriptive language which creates a picture in yo<br>mind |  |

atmosphere

| Key Word   | Key Word Definition  |                |
|------------|--|----------------|
| Hierarchy  | A system in which members of society are ranked according to status. | Metaphor       |
| Duplicity  | Being deceitful or two-faced.  |                |
| Authority  | The power to give orders   | Foresahdowir   |
| Stereotype | A fixed view of people or things                                     |                |
| Fate       | Destined to happen by supernatural forces out of our control         | Imagery        |
| Loyalty    | A strong feeling of support or alliance                              | Pathetic Falla |

### Redmoor English Department: Language Skills

| <b>BIG QUESTION:</b> What is a perspective and how is it conveyed? |   |  |
|--|---|--|
| Perspective  | A way of looking at something                               |  |
| Opinion  | What you think or feel about something                      |  |
| Fact   | A thing that is known to be true                            |  |
| Argument   | Your main idea or point about something                     |  |
| Tone   | The overall mood a writer shows, such as angry or humorous  |  |
| Attitude   | A set of emotions, beliefs and behaviours towards something |  |
| Context  | Background information                                      |  |

| BIG QUESTION: How do I summarise a text?  |   |  |
|---|---|--|
| Summary   | A brief statement of the main points                              |  |
| Statement   | A definite or clear idea  |  |
| Quotation   | n A short line copies from the text, which supports the statement |  |
| Inference What the quotation makes you think of feel. What you can work out about a topic from what's written |   |  |

|  | <b>BIG QUESTION:</b> How do I analyse a text?   |  |  |
|--|---|--|--|
|  | Point What is the writer's perspective or viewpoint on the topic?   |  |  |
|  | Evidence Embed a short, relevant quotation to support your point. Explain what it means and what the writer thinks or feels.  |  |  |
|  | Technique   | Explain the methods used by the writer (e.g. tone, words, ethos, logo, pathos) |  |
| Zoom Unpick the quotation in detail, writing two or three ideas about the technique used. <b>Challenge:</b> explore different words or techniques in the quotation. Link to another quotation in the text. |   |  |  |
|  | Link Link back to the the writer's perspective. Why do they have this opinion? Explore their context and purpose for writing. |  |  |

|        | The Aristotelian Triad  |  |  |  |  |
|--------|---|--|--|--|--|
| Ethos  | Appeals to the personality or character. Establishes the<br>author's credibility using:<br>- Good will<br>- Good character<br>- Expertise |  |  |  |  |
| Logos  | Appeals to reason. Establishes an argument based on logic<br>using:<br>- Statistics/Facts<br>- Citing authority<br>- Data<br>- Benefits   |  |  |  |  |
| Pathos | Appeals to the emotions of the author's audience. Writer's<br>play on their audience's:<br>- Fear<br>- Duty<br>- Hope                     |  |  |  |  |

# MATHS - Assessment 3

| MATHS – Assessment 3 |  | Covered in | Pre-test re | Post test re         |
|----------------------|--|------------|-------------|----------------------|
| Sparx<br>Code        | TOPIC  | flection   |             | eflection<br>lessons |
| U787                 | Constructing bisectors of angles                   |            |             |                      |
| U245                 | Constructing perpendicular bisectors and lines     |            |             |                      |
| U221                 | Finding the arc length of sectors                  |            |             |                      |
| U373                 | Finding the area of sectors                        |            |             |                      |
| U464                 | I464         Finding the surface area of cylinders |            |             |                      |
| U915                 | Finding the volume of cylinders                    |            |             |                      |
| U657                 | Finding error intervals                            |            |             |                      |
| U743                 | Plans and elevations                               |            |             |                      |
| U385                 | Using Pythagoras' theorem in 2D                    |            |             |                      |



| MATHS – Assessment 4                            |  | Covered i                             | Pre-test r | Post test  |
|---|--|---------------------------------------|------------|------------|
| Sparx<br>Code                                   | TOPIC  | reflection<br>reflection<br>n lessons |            | reflection |
| U687  | Writing and simplifying ratios                 |                                       |            |            |
| U577  | Sharing amounts in a given ratio               |                                       |            |            |
| U721  | Solving direct proportion word problems        |                                       |            |            |
| U357  | Solving inverse proportion word problems       |                                       |            |            |
| U610  | Currency conversion                            |                                       |            |            |
| U315  | Finding equations of straight line graphs      |                                       |            |            |
| U669  | Interpreting equations of straight line graphs |                                       |            |            |
| U151  | Calculating with speed                         |                                       |            |            |
| U256  | Calculating with rates                         |                                       |            |            |
| U403  | Plotting distance-time graphs                  |                                       |            |            |
| U914  | Interpreting distance-time graphs              |                                       |            |            |
| U462  | Calculating speed from distance-time graphs    |                                       |            |            |
| U966 Plotting distance-time graphs using speeds |  |                                       |            |            |
|   |  |                                       |            |            |

y = mx + cgradient y-intercept



DistanceTime

10

#### 1. What is meant by resultant force and what are its effects?

- What is the relationship between speed, distance and time? 2.
- How can forces affect the rotation and shapes of objects? 3.
- How is pressure different in solids, liquids and gases? 4.







#### **KS3 Physics - Forces**

2. Wh

Weight (N) = Mass (kg) x Gravitational field strength (N/kg)

| 1. What is n   | neant by resultant force                              | and what are   | re its effects?   |  |
|--|---|--|---|--|
| Force  | A push or a pull that a                               | A push or a pull that acts on an object, measured in Newtons (N).  |   |  |
| Contact force  | A force that act betwe                                | A force that act between two objects that are physically touching.   |   |  |
| Non-contact fo   | A force that acts betw                                | A force that acts between two objects that are not physically touching.                                    |   |  |
| Resultant force  | The overall force acti                                | The overall force acting on an object when multiple force are acting on the object.                        |   |  |
| Friction   | A force that opposes                                  | A force that opposes the movement of an object.  |   |  |
| Weight   | A force that acts on a                                | n object that is wi  | within a gravitational field. Measured in Newtons (N).      |  |
| Mass   | A measure of the amo                                  | ount of matter (stu  | stuff) an object is made out of. Measured in kilograms (kg) |  |
| 2. What is the relationship between speed,<br>distance and time? |   |  |   |  |
| Speed  | Speed is a measure of how fails moving.               | ed is a measure of how fast an object<br>oving.<br>v far an object has travelled,<br>asured in metres (m). |   |  |
| Distance   | How far an object has travell measured in metres (m). |  |   |  |
| Acceleration   | Describes an object which is speed.                   | cribes an object which is increasing in ed.  |   |  |
|  |   |  | Time  |  |
| Pivot  | applied   | gase:  | es?   |  |
| → `Q /   | ×   | Pressure   | e Force applied per unit area.                              |  |
| Perpe  | endicular distance                                    | Upthrust   | Force that pushes objects upwards in a liquid or gas.       |  |
| [  | Ruler   | Pressure (N/m²) = Force (N) / Area (m²)  |   |  |
| Clamp  | Spring  |  | Pressure in a liquid or gas<br>increases with depth.        |  |
| stand<br>and<br>clamp  | Mass hang<br>Masses<br>Pointer                        | er Low PRESSUR WATER   | URE Weakest jet Larger area = lower pressure                |  |
|  | Thirt   |  | International area = higher pressure                        |  |



- 3. How are substances transported in an organism?
- 4. How are new cells made and how can we take advantage of this?

GCSE Biology Cell transport and Cell division

Oxygen and carbon dioxide are transported by diffusion.





| Perfume particles         |               | Remember this is happening across cell membranes.  |
|---------------------------|---------------|--|
| Factor                    | Н             | ow it affects diffusion  |
| Concentration<br>gradient | Also<br>larg  | b known as the difference in concentration $\rightarrow$ the er the difference the faster the diffusion. |
| Temperature               | Higi<br>spre  | her temperature $\rightarrow$ more kinetic energy $\rightarrow$ particles ead out faster.                |
| Surface area              | Larç<br>diffu | ger surface area mean more space for substances to<br>ise.   |





| 3. How are substances transported in an organism? |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|
| Diffusion   | Movement of particles from a higher concentration to a lower concentration.  |  |  |  |  |  |  |
| Osmosis   | Movement of water from an area of higher water concentration (dilute) to an area of lower water concentration (concentrated) through a partially permeable membrane. |  |  |  |  |  |  |
| Active transport                                  | Movement of substances from an area of lower concentration to an area of higher concentration using energy.  |  |  |  |  |  |  |
| Concentration gradient                            | The difference in the concentration of a substance across a membrane.  |  |  |  |  |  |  |
| Exchange surface                                  | A surface where substances, are moved across membranes.  |  |  |  |  |  |  |

# 4. How are new cells made and how can we take advantage of this?A type of cell division which produces two identical daughter

| Mitosis         | cells.  |  |  |  |  |  |
|-----------------|---|--|--|--|--|--|
| DNA             | Genetic information that contains codes to produce proteins.              |  |  |  |  |  |
| Chromosome      | DNA is arranged into these, humans have 23 pairs.                         |  |  |  |  |  |
| Differentiation | The process by which an unspecialised cell becomes specialised.           |  |  |  |  |  |
| Stem cell       | Undifferentiated cell that can specialise into many different cell types. |  |  |  |  |  |





Independent

Dependent

variable

variable

Control

variables

Concentration of salt

or sugar solution.

Change in mass

length of potato

Volume of the

solution, surface

area of cylinders,

start length and start

cylinders.

mass.

and/or change in

| BIG QUESTIC  | DNS:   | GCS<br>Atomic struct               | SE Chemistry<br>ure & the Periodic ta   | able  |  | <sup>t</sup> shell holds a i                             | maximum of              |  |
|--|--|------------------------------------|---|---|--|--|-------------------------|--|
| <ol> <li>How do di<br/>from each</li> <li>Why was t<br/>important</li> </ol> | fferent types of atoms differ<br>other?<br>he periodic table such an<br>scientific breakthrough? |                                    |   | tion 8 8 0 000  |  | 2 <sup>nd</sup> shell holds a maximum<br>of 8 electrons. |                         |  |
| <ol> <li>How do at</li> <li>How can want</li> <li>predict real</li> </ol>    | oms bond to each other?<br>we use chemical equations to<br>acting quantities?                    | Fitratio                           | Evapo   | 00  |  | of 8 electrons.  | Charge                  |  |
| 1. How do di   | fferent types of atoms differ from   | one another?                       | <u> </u>  |   | Proton   | 1  | +1                      |  |
| Atom   | Smallest part of an element  |                                    | Fractional Distillation   |   | Neutron  | 1  | 0                       |  |
| Element  | Material made of one type of atom  |                                    |   |   | Electron   | 1/2000   | -1                      |  |
| Compound   | Substance made of more than one type   | of atom chemically                 | 3. How do atoms   | bond to each other?   |  |  |                         |  |
| Mixture  | 2 or more elements or compounds NOT  | T chemically bonded. Halogens Grou |   | Group 1 elements<br>Group 7 elements  | Group 7 elements   |  |                         |  |
| Proton   | Positively charged particle found in nucl  | Pus of atom Noble gases Gro        |   | Group 8/0 elements th   | at are unreacti  | ve.  |                         |  |
| Noutrop  | Noutrally charged particle found in nucl   | ous of stom                        | Transition elements   | Element from the centra   | Il block of the p  | periodic table   |                         |  |
| Electron   | Negatively charged particle found on sh  | ells surrounding                   | Displacement reactions  | When a more reactive n<br>metal in a compound.  | When a more reactive metal takes the place of a less reactive metal in a compound. |  |                         |  |
| lon  | A charged particle formed when an aton   | n loses or gains an                | Oxidation   | When an element reacts and gains oxygen   |  |  |                         |  |
| Isotope  | electron<br>Atoms that have the same number of pro<br>different number of neutrons               | otons but have a                   | Electron Shielding  | Electron shielding refers to the blocking of the attraction between the nucleus and the outer shell electrons de presence of inner-shell electrons. |  |  | tion<br>ue to the       |  |
| 2. Why was breakthro   | he periodic table such an importaugh?  | ant scientific                     | 4. How can we u   | se chemical equations<br>Substance at the beginning   | to predict r   | eacting qua  | antities?<br>re the     |  |
| Period   | A horizontal row in the periodic table.  |                                    | Products  | reaction has occurred)  | t of a chemical  | reaction   |                         |  |
| Group  | A vertical column in the periodic table co<br>with similar chemical properties.                  | ontaining elements                 | Conservation of mass  | The total mass of the produ<br>total mass of the reactants  | icts formed in a   | a reaction is eq   | ual to the              |  |
| Atomic<br>number   | The number of protons in the nucleus of proton number.   | an atom. Also called               | Word Reaction   | A chemical reaction expressed in words. A word equation s<br>state the reactants (starting materials), products (ending m                           |  |  | n should<br>materials), |  |
| Atomic<br>Weight   | Weighted average of the atomic mass of of an element   | f all natural isotopes             | Complex I Formation   | A chemical reaction expres  | n.<br>sed in formula   | e. A balanced s  | symbol 1                |  |
| Atomic Mass  | The sum of the protons and neutrons in   | an atoms.                          | Symbol Equation   equation has the same number of atoms of each sides of the arrow. |   |  | or each elemei   | nt on doth              |  |

Energy

System

energy

Work done

Dissipation

Conservation of

Kinetic energy

- 1. How is energy stored and transferred?
- 2. How do we calculate the values of different energy stores?

1. How is energy stored and transferred?

The ability to do work.

Energy stored in a

moving object.

Books on a

An object or group of objects.

between energy stores or dissipated.

Energy transferred from one energy store to another.

Energy cannot be created or destroyed, it can be transferred

Process of energy being transferred, or lost, to the surroundings.

Chemical energy

#### **GCSE** Physics **Dissipation & conservation of energy**

**Energy transfers** 

<u>By heating</u>  $\rightarrow$  increases the kinetic of the particles in the system, which increases the energy in the thermal store of the object.

MAINS SUPPLY

ENERGY IS TRANSFER TO THE THERMAL STORE OF THE LAMP

circuit.

Energy stored in

chemical bonds.

A stretched or

ENERGY IS TRANSFERRED TO

RANSFERRE FROM THE CHEMICAL STORE OF THE CELL



| 2. How do we calculate the values of different energy stores? |   |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|
| Power   | Rate at which energy is transferred. Measured in Watts (W). |  |  |  |  |  |  |
| Joules (J)  | Unit for energy and work done.                              |  |  |  |  |  |  |



3. Are all energy transfers useful?

4. How can we compare different energy resources and why is this necessary?

c 10

#### GCSE Physics Energy transfers & energy resources

| Change in        |      | x | specific heat | v | change in   |
|------------------|------|---|---------------|---|-------------|
| thermal energy 🖡 | mass |   | capacity      | х | temperature |



Conduction

Particles gain kinetic energy and vibrate more. This vibration is passed onto neighbouring particles.

| 3. Are all energy transfers useful? |  |  |  |  |  |  |  |  |
|-------------------------------------|--|--|--|--|--|--|--|--|
| Thermal conductivity                | A measure of how well a material conducts energy when it is heated.  |  |  |  |  |  |  |  |
| Conductor                           | A material that allows thermal energy and charge to transfer through it easily. Has a high thermal conductivity.       |  |  |  |  |  |  |  |
| Insulator                           | A material that does not allow thermal energy or charge to transfer through it easily. Has a low thermal conductivity. |  |  |  |  |  |  |  |
| Conduction                          | The transfer of heat through a material by transferring kinetic energy from one particle to another.                   |  |  |  |  |  |  |  |
| Convection                          | The transfer of heat energy through a moving liquid or gas.  |  |  |  |  |  |  |  |
| Infrared radiation                  | Electromagnetic radiation emitted from a hot object.   |  |  |  |  |  |  |  |
| Emitted                             | Process of sending out energy.   |  |  |  |  |  |  |  |
| Reflected                           | When waves bounce off of a surface.  |  |  |  |  |  |  |  |
| Specific heat capacity              | Energy required to raise the temperature of 1kg of a substance by 1°C.   |  |  |  |  |  |  |  |









Ma Famille

| (1) Se   | entence Star  | rter + Verb+ Noun  | (2) PVS + Noun (Family Members)<br>(masc/fem/plural)   |   |   |  |  |  |
|--|---|--|--|---|---|--|--|--|
| Dans ma famille<br>In my family<br>Chez moi<br>At my house | <b>il y a</b><br>there are<br><b>j'ai</b><br>I have | trois personnes;<br>three people;<br>quatre personnes;<br>four people;<br>cinq personnes;<br>five people;<br>six personnes;<br>six people; | mon père my father<br>mon frère my brother<br>mon beau-père my step-dad<br>mon beau-frère my step-brother<br>mon demi-frère my half brother<br>mon grand-père my grandad<br>mon cousin my cousin<br>mon oncle my uncle | ma mère my mother<br>ma soeur my sister<br>ma belle-mère my step-mum<br>ma belle-sœur my step-sister<br>ma demi-sœur my half sister<br>ma fille my daughter<br>ma grand-mère my grandma<br>ma cousine my cousin<br>ma tante my aunt<br>ma femme my wife | mes grands-parents<br>my grandparents<br>mes parents<br>my parents<br>et moi.<br>and me |  |  |  |

#### Tu t'entends bien avec ta famille? Do you get on with your family?

| (3) Opinion   | PVS + Noun  | (4) D   | irect Object                                      | t Pronouns   | (5) (                | Quality Vocab  | (6) Verb  | (7) Intensifier   | (8) Adjective  |  |  |
|---|---|---|---|--|----------------------|--|---|---|--|--|--|
| J'adore<br>I love<br>Je ne supporte pas<br>I can't stand<br>Je m'entends bien<br>avec   | <ul> <li>mon père.<br/>my father.</li> <li>ma mère.<br/>my mother.</li> <li>mes parents.<br/>my parents.</li> </ul> | mon père.<br>my father.<br>ma mère.<br>my mother. | mon père.<br>my father.<br>ma mère.<br>my mother. | Je<br>I  | l'<br>him/her        | <b>aime</b><br>like<br><b>adore</b><br>love  | car<br>because<br>parce<br>que<br>because   | pour moi<br>for me<br>je pense qu'<br>I think that<br>j'estime qu'<br>I reckon that       | il est<br>he is<br>elle est<br>she is<br>ils sont<br>they (m) are  | complètement<br>completely<br>tellement<br>so<br>un peu<br>a bit | amical(e)(s) friendly<br>bavard(e)(s) chatty<br>bête(s) stupid<br>egoïste(s) selfish<br>gentil(le)(s) kind |
| Je me dispute avec<br>I argue with<br>Je me fâche avec<br>I get angry with<br>J'ai un bon rapport<br>avec<br>I have a good<br>relationship with<br>J'ai des bonnes<br>relations avec<br>I have good<br>relationships with |   | ints.<br>Is.                                      | les<br>them<br>le<br>him<br>la<br>her             | les déteste<br>them hate<br>le<br>him<br>la<br>her | <b>puisque</b><br>as | temps<br>most of the time<br>je suis l'opinion<br>qu'<br>in my opinion<br>je dirais qu'<br>I would say that<br>heureusement<br>fortunately<br>malheureusement<br>unfortunately | they (f) are rath<br>trop<br>il peut être too<br>he can be ass<br>elle peut quit<br>être par<br>she can be part | rather<br>trop<br>too<br>assez<br>quite<br>particulièrement<br>particularly               | genereux(euse)(s)<br>generous<br>casse-pieds<br>annoying<br>heureux(euse)(s)<br>happy<br>jaloux(ouse)(s)<br>jealous<br>méchant(e)(s) mean<br>poli(e)(s) polite |  |  |
|   |   |   |   |  |                      |  | il / elle me cor<br>il / elle ne me<br>me<br>il / elle m'éner<br>on a les même                                  | mprend he/she under<br>comprend pas he/sh<br>ve he/she annoys me<br>es goûts. we have the | stands me<br>e doesn't understand<br>17<br>e same interests  |  |  |

II/Elle est comment? What does he/she look like?

Décris ton / ta meilleur(e) ami(e) Describe your best friend

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| Verb<br>Avoir   | (9) PVS                             | • + Noun + Adjectives<br>(colours)  | (10) Adjectives  | Sentence<br>starter                           | Verb                   |   |  |
|---|-------------------------------------|---|--|---|------------------------|---|--|
| J'ai<br>I have<br>II a<br>He has<br>Elle a<br>She has<br>IIs ont<br>They (m) have<br>Elles ont<br>They (f) have | les yeux<br>eyes                    | bleus blue<br>verts green<br>gris grey<br>marron brown<br>noisettes hazel | <b>clairs.</b> light.<br><b>foncés.</b> dark.            | Mon meilleur<br>ami<br>My best friend<br>(m)  | est<br>is              | petit(e) small<br>grand(e) tall<br>mince thin<br>gros(se) big<br>joli(e) pretty<br>le foot. football<br>la danse. dance<br>les animaux. animals |  |
|   | <mark>les</mark><br>cheveux<br>hair | blonds blonde<br>châtain light brown<br>noirs black                       | courts. short.<br>mi-courts. mid-length.<br>longs. long. | Ma meilleure<br>amie<br>My best friend<br>(f) | <b>aime</b><br>likes   |   |  |
|   |                                     | marron brown<br>roux ginger<br>gris grey                                  | <b>raides.</b> straight.<br>frisés. curly.               |   | s'appelle<br>is called | James.<br>Sarah.  |  |

#### **II/Elle est comment?** What is he/she like?

| Verb<br>(Être)                                     | Comparative                                | Adjective   |                      |  | Verb<br>(Être)   | Pronoun                                    | Superlative  | Adjective  |
|--|--|---|----------------------|--|--|--|--|--|
| Je suis<br>(I am)<br>Il est<br>(he is)<br>Elle est | plus<br>(more)<br>moins<br>(less)<br>aussi | grand(e)<br>(tall)<br>intelligent(e)<br>(intelligent)<br>drôle<br>(funny) | <b>que</b><br>(than) | moi<br>(me)<br>lui.<br>(him)<br>elle.<br>(her) | Je suis<br>(I am)<br>Il est<br>(he is)<br>Elle est<br>(she is)<br>Ils sont<br>(they are) | le<br>(the)<br>la<br>(the)<br>les<br>(the) | <b>plus</b><br>(most)<br><b>moins</b><br>(least)   | grand(e)(s)<br>(tall)<br>intelligent(e)(s)<br>(intelligent)<br>drôle(s)<br>(funny)<br>sportif/ive(s)<br>(sporty) |
| (she is)   | (as)                                       | <b>sportif/ive</b><br>(sporty)  |                      |  | (they are)<br>Elles sont<br>(they are)   |  | <b>meilleur(e).</b> (the best) <i>of a group</i><br><b>mieux.</b> (the best) <i>at something</i><br><b>pire.</b> (the worst) |  |

#### Qu'est-ce que tu aimes regarder à la télé/au cinéma? What do you like to watch on TV/at the cinema?

|                   | Opinion (1)  | Verb(2)                            | Noun(3)  | Noun(4)  | Connective(5)   | Quality Vocab(6)  | Verb(7)   | Adjective(8)   |
|-------------------|--|------------------------------------|--|--|---|---|---|--|
| Les Loisirs 🎘 🐥 🕺 | J'adore<br>I love<br>J'aime assez<br>I quite like<br>J'aime beaucoup<br>I really like<br>Je n'aime pas du tout<br>I don't like at all<br>Je déteste<br>I hate<br>Je préfère<br>I prefer<br>Je ne supporte pas<br>I can't stand | regarder<br>to watch /<br>watching | les actualités<br>the news<br>les dessins animés<br>(the) cartoons<br>les feuilletons<br>(the) soaps<br>les jeux télévisés<br>(the) game shows<br>les publicités<br>(the) adverts<br>les séries<br>(the) series<br>les émissions de<br>télé-réalité<br>(the) reality TV shows<br>les émissions de<br>sport<br>(the) sports shows<br>les documentaires<br>(the) documentaires<br>la météo<br>the weather forecast | les films de guerre<br>(the) war films<br>les films policiers<br>(the) crime films<br>les films d'action<br>(the) action films<br>les films de<br>science fiction<br>(the) sci-fi films<br>les films d'amour<br>(the) love films<br>les comédies<br>(the) comedy films<br>romantiques<br>(the) Rom-Coms<br>les films d'horreur<br>(the) horror films | parce que<br>because<br>car<br>because<br>puisque<br>as | on me dit que<br>people say that<br>il faut admettre<br>que<br>I must admit that<br>heureusement<br>fortunately<br>malheureusement<br>unfortunately<br>je dirais que<br>I would say that<br>c'est vrai que<br>it's true that<br>ce n'est pas vrai<br>que<br>it's not true that<br>pour moi<br>for me<br>selon mes amis<br>according to my<br>friends<br>j'estime que<br>I reckon that | c'est<br>it is<br>ce n'est<br>pas<br>it's not<br>ça peut<br>être<br>it can be | <pre>émouvant. moving. triste. sad. effrayant. scary. comique. funny. banal. dull. romantique. romantic. idiot. stupid. original. original. bizarre. weird. formidable. great.</pre> |

Tu aimes quelle sorte de musique? What sort of music do you like?

| Opinion (9)  | Verb(10)                                       | Noun(11)  |                          | Opinion (12)  | Connective(12)  | Reason (13)  |    |
|--|--|---|--------------------------|---|---|--|----|
| J'adore<br>I love<br>J'aime assez<br>I quite like<br>J'aime beaucoup<br>I really like<br>Je ne supporte pas<br>I can't stand | écouter<br>to listen<br>to/<br>listening<br>to | de la musique rap<br>(some) rap music<br>de la musique RnB<br>(some) RnB music<br>de la musique pop<br>(some) pop music<br>de la musique rock<br>(some) rock music<br>de la musique classique<br>(some) classical music<br>des chansons françaises<br>(some) French songs<br>des chansons anglaises<br>(some) English songs | et<br>and<br>mais<br>but | <ul> <li>mon chanteur préféré est<br/>my favourite male singer is</li> <li>ma chanteuse préférée<br/>est<br/>my favourite female singer<br/>is</li> <li>mon groupe préféré est<br/>my favourite group is</li> </ul> | car<br>(because)<br>parce que<br>(because)<br>puisque<br>(as) | j'aime les mélodies.<br>I like the tunes.<br>j'aime les paroles.<br>I like the lyrics.<br>j'adore les chansons.<br>I love the songs.<br>il est génial.<br>he is great.<br>elle est fantastique.<br>she is fantastic. | 19 |

Qu'est-ce que tu fais? What do you do?

| Time Phrase(14)  | Verb(15)                     | PVS(16)  | Noun(17)  | Subordinate<br>Clause(18)   |
|--|------------------------------|--|---|---|
| Normalement,<br>Normally,<br>D'habitude,<br>Usually,                         | <b>je joue</b><br>I play     | au<br>at (m)<br>aux<br>at (pl)   | foot.<br>football.<br>jeux vidéos.<br>video games.                          | avec mes ami(e)s.<br>with my friends.<br>avec mes copains.<br>with my mates (m).<br>avec mes copines.<br>with my mates (f).<br>avec ma famille.<br>with my family.<br>avec mon équipe.<br>with my team.<br>chez moi.<br>at my house<br>chez mon ami(e).<br>at my friend's house.<br>chez mon père.<br>at my dad's house.<br>au centre sportif.<br>at the sports centre.<br>en ville.<br>in town.<br>au collège.<br>at school.<br>au restaurant.<br>at the restaurant.<br>at the park.<br>dans ma chambre<br>in my room. |
| Le weekend,<br>At the weekend,<br>Pendant la<br>semaine,<br>During the week, | <b>je fais</b><br>I do       | du<br>some (m)<br>de la<br>some (f)<br>de l'<br>some (v)                     | vélo.<br>cycling.<br>natation.<br>swimming.<br>équitation.<br>horse riding. |   |
| Quelquefois,<br>Sometimes,<br>De temps en<br>temps,<br>From time to<br>time, | <b>je regarde</b><br>I watch | la<br>the (f)<br>un<br>a (m)   | télé.<br>TV.<br>match de foot.<br>football match.                           |   |
|  | <b>je vais</b><br>I go       | en<br>to<br>au<br>to the (m)   | <b>ville</b><br>town<br><b>cinéma</b><br>cinema                             |   |
|  | <b>je mange</b><br>I eat     | du<br>some (m)<br>de la<br>some (f)<br>de l'<br>some (v)<br>des<br>some (pl) | poulet.<br>chicken.<br>pizza.<br>pizza.<br>pineapple.<br>frites.<br>chips.  |   |
|  | j'écoute<br>I listen         | <mark>de la</mark><br>some (f)   | <b>musique.</b><br>music.   | -   |
|  | <b>je retrouve</b><br>I meet | <mark>mes</mark><br>my (pl)  | amis.<br>friends.   |   |

Qu'est-ce que tu vas faire? What are you going to do?

| Time Phrase (19)                       | Verb(20)                         | PVS (21)                      | Noun(22)                 |
|--|----------------------------------|-------------------------------|--------------------------|
|  | <b>je jouerai</b>                | au                            | <b>rugby.</b>            |
|  | I will play                      | at (m)                        | rugby.                   |
|  | <b>je ferai</b>                  | <mark>du</mark>               | <b>footing.</b>          |
|  | I will do                        | some (m)                      | jogging                  |
| <b>Demain,</b>                         | <b>je regarderai</b>             | <mark>la</mark>               | <b>télé.</b>             |
| Tomorrow,                              | I will watch                     | the (f)                       | TV.                      |
| <b>Ce weekend,</b>                     | <b>j'irai</b>                    | <mark>à la</mark>             | <b>bibliothèque</b> .    |
| This weekend,                          | I will go                        | to the (f)                    | library.                 |
| La semaine<br>prochaine,<br>Next week, | <b>Je mangerai</b><br>I will eat | <mark>des</mark><br>some (pl) | <b>chips.</b><br>crisps. |
|  | <b>j'écouterai</b>               | <mark>de la</mark>            | <b>musique.</b>          |
|  | I will listen                    | some (f)                      | music.                   |
|  | <b>je retrouverai</b>            | <mark>mes</mark>              | <b>amis.</b>             |
|  | I will meet                      | my (pl)                       | friends <b>.</b>         |

#### Qu'est-ce que tu as fait? What did you do?

**Future Tense** 

**Perfect Tense** 

| Time Phrase (23) | Verb(24)                         | PVS(25)            | Noun(26)                    |
|------------------|----------------------------------|--------------------|-----------------------------|
|                  | <b>j'ai joué</b>                 | au                 | <b>netball.</b>             |
|                  | I played                         | at (m)             | netball.                    |
| Hier,            | <b>j'ai fait</b>                 | <mark>de la</mark> | danse.                      |
|                  | I did                            | some (f)           | dance.                      |
| Yesterday,       | <b>j'ai regardé</b>              | une                | <b>série Netflix.</b>       |
| Ce weekend,      | I watched                        | a(f)               | Netflix series.             |
| La semaine       | <b>je suis allé(e)</b>           | au                 | <b>parc</b> .               |
| dernière,        | I went                           | to the (m)         | park.                       |
| Last week,       | <b>j'ai mangé</b><br>I ate       | <b>chez</b><br>at  | <b>McDo.</b><br>McDonald's. |
|                  | <b>j'ai écouté</b><br>I listened | un<br>a (m)        | 20<br>podcast.<br>podcast.  |

# YEAR 9 HISTORY: WW2

### <u>STEPS TO WAR:</u>

Axis: Germany & Italy Allies: UK, France, USSR & Poland Demilitarised zone: an area with no military force Rhineland: demilitarised zone between France and Germany Annexed: forcible addition of one state's territory by another state. Appeasement: keeping someone happy by letting them have what they want. Neville Chamberlain: the British Prime Minister who believed in appeasement.

Sudetenland: border area of Czechoslovakia where many Germans lived.

Anschluss: the union of Austria with Germany that took place in 1938.

1936 March : German troops enter the Rhineland

**1936 November:** Hitler makes alliances with Italy and Japan.

1938: Germany "annexes" Austria 1938 September: Hitler threatens to invade part of Czechoslovakia where many ethnic Germans lived.

1939 March: Germany invaded the rest of Czechoslovakia

1939 September: Hitler invades Poland 3<sup>rd</sup> September 1939: Britain and France declare war on Germany

### <u>BLITZKRIEG:</u>

Blitzkrieg: means "lightning war" and was a tactic used by the German army Reconnaissance: military observation of a

region

Refugee: a person who has been forced to leave their country in order to escape war, persecution, or natural disaster. Infantry: soldiers marching or fighting on foot

Artillery: large-calibre guns used in warfare on land Stuka: dive bombing aircraft that became notorious as a terror weapon partly because it was fitted with a siren that wailed as the plane dived

## <u>DUNKIRK:</u>

Dunkirk: scene of a British retreat from May 26 to June 4, 1940 Ardennes Forest: region of forest and rugged terrain in southeast Belgium that extends into Germany and France Winston Churchill: 10th May he became new British Prime Minister Maginot Line: This French line of defence was constructed along the country's border with Germany during the 1930s Operation Dynamo: The plan to evacuate British and French soldiers Little Ships: civilian boats and ships that sailed across the Channel to help soldiers get to the larger ships Luftwaffe: German Air Force **BEF:** British Expeditionary Force





# <u>BATTLE OF BRITAIN</u>:

RAF: Royal Air Force Operation Sea Lion: Nazi Germany's code name for the plan for an invasion of Britain Radar: British invention worked by sending out radio waves which would bounce back if they hit any large metallic object Attack of the Eagles: The Luftwaffe switching of their targets to the RAF itself June 1940: Germans targeted shipping, aim was to starve Britain into submission August 1940: Attack of the Eagles 7th September 1940: Luftwaffe unexpectedly changes its target to London. 15th September 1940: Battle of Britain Day

# YEAR 9 HISTORY: WW2



# <u>OTHER EVENTS</u>:

Battle of the Atlantic: struggle by the Allies to secure shipping routes 7th December 1941: Japan attacks Pearl Harbour 8th May 1945: VE Day, Germany surrenders 6th August 1945: Atom bomb dropped on Hiroshima 9th August 1945: Atom bomb dropped on Nagasaki 2nd September 1945: VJ Day, Japan surrenders





# <u>D-DAY 6TH JUNE 1944</u>:

Atlantic Wall: large network of fortifications and beach defences along the coast of France Operation Bodyguard:campaign of allied deception leading up to D Day Window: strips of aluminium which were dropped by aircraft in order to confuse German radar Normandy beaches: area of Northern France chosen as the location for invasion Landing craft: small seagoing vessel that allowed troops onto the beaches Hobart's Funnies: a number of unusually modified tanks Mulberry Harbour: artificial harbour that would be anchored near to the landing beaches PLUTO: Pipeline under the ocean used to supply allied vehicles Operation Fortitude: code name for the deception campaign leading up to the D-Day landings Operation Overlord: code name for the Battle of Normandy Operation Neptune: code name for the channel crossing phase of Operation Overlord

# Year 9 Geography - Our Unequal World

| Social Measures<br>of Development   | Social measures of develor<br>infant mortality. Generall<br>social measures and econ | opment include birth rat<br>ly, there is a strong corre<br>iomic measures. | e, death rate and<br>lation between |
|---|--|--|-------------------------------------|
| Measure   | Germany (HIC)  | India (NEE)  | Chad (LIC)                          |
| 67 V  |  | Contract of  | A CERTIFIC A                        |
| Birth Rate<br>The number of births per<br>1,000 people each year  | 9.0  | 19.3   | 43.86                               |
| Death Rate<br>The number of deaths per<br>1,000 people each year  | 11.3<br>(high due to ageing<br>population)   | 7.3<br>(low due to young<br>population)                                    | 13.2                                |
| Infant Mortality<br>The number of deaths of<br>infants under one year old<br>per 1,000 births each year | 3.3  | 36.2   | 76.8                                |
| People per Doctor<br>The average number of<br>people per doctor   | 250  | 1,380  | 23,000                              |
| Access to Safe Water<br>The percentage of<br>people who have access<br>to clean drinking water          | 100%   | 94.1%  | 50%                                 |
| Life Expectancy<br>The average number of<br>years that a person can<br>expect to live                   | 81   | 68   | 52                                  |
| Literacy Rates<br>The percentage of<br>people in a population<br>who can read and write                 | 99%  | 72%  | 40%                                 |
| HICS  |  | Conflict   | Weather<br>and                      |
|   |  | Wh   | y is the world<br>unequal?          |
| LICS  |  | Lack of<br>schools or<br>poor<br>education                                 | Landloc                             |

| Key Term                 | Definition   |
|--------------------------|--|
| HIC                      | HIgh income country  |
| LIC                      | Low income country   |
| NEE                      | Newly emerging economy   |
| Malnourished             | Being weak or ill because of having too little food.                                     |
| Development              | The economic progress of a country and improvements to quality of life.                  |
| Development indicator    | A measure of a country's level of development.   |
| Literacy rate            | How many people can read or write, as a percentage of the population over the age of 15. |
| Infant<br>mortality rate | The amount of children who die before their first birthday.                              |
| GNI                      | Gross national income; the amount of money a country makes in a year.                    |
| Resources                | Something that has a value or purpose, such as food, water and energy.                   |
| Resource<br>insecurity   | A lack of resources such as food, water and energy.                                      |
| Resource<br>security     | Plentiful supply of resources like food water and energy.                                |

### Year 9 Geography - A Changing Climate

#### Key terms

Atmosphere - a layer of gases that surrounds the planet

Weather - the current conditions in the atmosphere

Climate - the average weather conditions in an area over a period of time

Greenhouse effect - the process by which CO2 and other gases prevent the Earth's heat escaping into space

Greenhouse gas - a gas, present in the atmosphere, which reduces the loss of heat into space (carbon dioxide, methane, nitrous oxide, water vapour, CFCs).

Global warming - the slow increase in the Earth's average temperature

Carbon emissions - CO2 added to the atmosphere by burning fossil fuels

Enhanced Greenhouse effect - the effect of increased levels of CO2 and other gases in the atmosphere to prevent more of the earth's heat from escaping into space

#### What is the greenhouse effect?

**Solar radiation** (the sun's rays) power the climate system. Some solar radiation is reflected by the Earth and the **atmosphere**. About half the solar radiation is absorbed by the Earth's surface and warms it. Infrared radiation is emitted from the Earth's surface. Some of this infrared radiation passes through the atmosphere, but most is absorbed and re-emitted in all directions by clouds & **greenhouse gases**. The effect of this warms the Earth's surface and lower atmosphere. Human activities can impact the amount of greenhouse gases in the atmosphere, and can therefore increase global temper



### Causes of climate change

#### Human causes

Burning fossil fuels – fossil fuels like coal and natural gas contain high amounts of carbon; burning them for energy releases this carbon into the atmosphere Transport emissions – most use petrol or diesel for fuel which releases greenhouse gases into the atmosphere.



**Deforestation** - trees absorb carbon and transform it into oxygen during photosynthesis; if they are cut down there will be more carbon in the atmosphere

**Dumping waste in landfills** - when waste is left to decompose in a landfill it produces and gives off methane, another greenhouse gas like carbon **Agriculture** - agricultural practices lead to the release of nitrogen oxide & methane into the air

#### Natural causes

**Orbital changes** - the Earth has natural periods (like ice ages) where the average temperature changes a lot due to changes in the tilt, wobble and shape of the orbit.

**Solar output** - the amount of solar radiation from the sun changes; if it is stronger, Earth's temperatures will rise

Volcanic eruptions - during a volcanic eruption carbon dioxide is released.

# Year 9 Computing

Python Programming

| Python to English           |   |
|-----------------------------|---|
| <pre>print('hello!')</pre>  | Prints a value on screen (in this case, hello!)   |
| input('')                   | Inputs a value into the computer.   |
| x=input('')                 | Inputs a value and stores it into the variable x.   |
| <pre>x=int(input(''))</pre> | Inputs a value into x, whilst also making it into an integer.   |
| <pre>print(str(x))</pre>    | Prints the variable x, but converts it into a string first.   |
| if name == "Fred":          | Decides whether the variable 'name' has a value which is equal to 'Fred'.   |
| else:                       | The other option if the conditions for an if<br>statement are not met (eg. name = 'Bob'<br>when it should be Fred)    |
| elif name == "Tim"          | elif (short for else if) is for when the first if<br>condition is not met, but you want to<br>specify another option. |
| #                           | # is used to make comments in code –<br>any line which starts with a # will be<br>ignored when the program runs.      |

| Python Programming Terminology  |   |  |
|---------------------------------|---|--|
| Python                          | A text based programming language that is very close to written English.  |  |
| Algorithm                       | A set of steps or instructions to complete a task.  |  |
| Variable                        | A place to store a single piece of data.  |  |
| Input                           | Where data is entered into a computer by a user/human.  |  |
| Output                          | Where data is displayed by the computer.<br>Examples include: text, images, sound, or video<br>displayed on a monitor or through speakers.                          |  |
| Assignment                      | When one variable is set equal to another e.g. x<br>= y   |  |
| Sequence                        | When code is run in a specific order, usually from top to bottom.   |  |
| Selection<br>IF<br>ELIF<br>ELSE | <pre>Also called a decision, when a program takes a<br/>course of action based on an answer.<br/>if answer == 0:<br/>print("Even")<br/>else:<br/>print("Odd")</pre> |  |
| Loops<br>While<br>For           | When one or more lines of code are repeated.<br>for i in range(11):<br>print ("The count is: " + str(i))  |  |

# Year 9 Computing

Cyber Security

| Malware | Stands for malicious software. Software that is designed to disrupt or damage a computer  |
|---------|---|
| Virus   | A type of malware that inserts itself into normal<br>programs so when that program runs, so does<br>the virus                                 |
| Worm    | A type of malware that can spread itself without<br>the need to insert itself into another program  |
| Trojan  | A type of malware that disguises itself as software that you would want to run  |
| Spyware | A type of malware that collects data about<br>activities on a computer then sends it back to the<br>attacker e.g. recording passwords entered |
| Adware  | A type of malware that shows unwanted adverts   |

| Social<br>Engineering | Where people (e.g. employees, users) are targeted when attacking a computer or network  |  |
|-----------------------|---|--|
| Phishing              | A social engineering attack, when an attacker<br>sends emails pretending to be a company such<br>as a bank to try and convince someone to hand<br>over sensitive information such as passwords<br>and credit card numbers |  |
| Brute Force<br>Attack | A social engineering attack, hen an attacker<br>keeps trying to guess someones password until<br>they get it right  |  |

| Prevention               |  |
|--------------------------|--|
| Eavesdropping            | When an attacker uses software to intercept data that is being transferred, either by cable or wireless              |
| Encryption               | Where data is scrambled using a keyword so it can't be read if it is intercepted                                     |
| Anti-malware<br>software | Software that can scan your computer and find malware. Once found it can be quarantined or removed from the computer |

| Hacking              |   |
|----------------------|---|
| White Hat<br>Hacking | An attacker who hacks legally. Usually they<br>have been paid to hack a computer system<br>and will then hand the company information<br>about where their security problems are so the<br>company can fix the problems that have been<br>found |
| Grey Hat<br>Hacking  | An attacker who hacks illegally and for the fun<br>of it or for the challenge. They can sometimes<br>be referred to as 'troll hackers'  |
| Black Hat<br>Hacking | An attacker who hacks illegally and wants to<br>cause harm or disruption. They can often be<br>trying to make money by using data that has<br>stolen to either be sold or used for blackmail  |

# Year 9 Art - Drawing Skills

#### Do you need talent to be an artist?



- British painter Sarah Graham was born in Hitchin in 1977, and works almost exclusively in oil on canvas.
- 2. She completed a BA (hons) in Fine Art painting from De Montfort University, Leicester in 2000, and has been pursuing her practice ever since.
- Her work typically depicting a host of sweets and toys.
- 4. In 2012, Sarah was **commissioned** by the British band Kaiser Chiefs to paint the album cover of their singles collection Souvenir, which was released worldwide.
- 5. Sarah uses photographs as **reference** and scales up by eye and sketching out in yellow acrylic.

**Composition** gives layout and structure to each art piece, and also affects the way the **subjec**t is perceived and understood. It leads the eye of the observer through the image and emphasizes the focal point. Strong artistic compositions are vital to the success of a piece of art. The composition of a piece is what captures a viewer's eye and holds their attention once they take a closer look.

The grid method involves drawing a grid over your reference photo, and then drawing a grid of equal **ratio** on your work surface (paper, canvas, wood panel, etc). Then draw the image on your canvas, focusing on one square at a time, until the entire image has been transferred. Once you're finished, you simply erase or paint over the grid lines, and start working on your painting, which will be now be in perfect **proportion.** 



One of the principal **genres** of Western art – essentially, the subject matter of a still life painting or sculpture is anything that does not move or is dead.

Still life includes all kinds of man-made or natural objects, cut flowers, fruit, vegetables, fish, game, wine and so on. Still life can be a celebration of material pleasures such as food and wine.

In modern art simple still life arrangements have often been used as a **relatively neutral** basis for formal experiment, for example by Paul Cézanne, the cubist painters and, later in the twentieth century, by Patrick Caulfield.



#### How does composition affect artwork?

farthest away.

Accuracy in Drawing





Bird's Eye View. - A point of view looking down

Background. - The part of an artwork that seems the

**Composition -** Describes the different ways elements of an artwork are arranged.

**Continuous Line Drawing -** A type of line drawing where the drawing implement is not taking off the page until the drawing is complete. It is often a fast paced way of working resulting in fluid mark making.

**Contour Drawing -** is a type of drawing where only the outlines of shapes within the subject of the drawing are drawn.

**Direct Observation -** is drawing from life rather than drawing from a photograph.

**Foreground -** The part of the artwork that seems to be closest to you.

**Line -** A line is a path made by an object moving across a surface.

**Middle Ground -** The middle layer of an artwork that appears to be between the foreground and background.

**Observational Drawing -** Drawing what you see, not what you think you see.

**Perspective -** Refers to the representation of objects in three-dimensional space on the two-dimensional surface of a picture.

**Scale -** refers to the actual size of an artwork or the size of the objects in an artwork.

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**Still Life -** A painting or drawing that shows an arrangement of objects.





# Year 9 Art - Lino Printing

#### Printing or drawing, which is better?

Printmaking is an artistic process based on the principle of transferring images from a **matrix** onto another surface, most often paper or fabric. Traditional printmaking techniques include woodcut, etching, engraving, and lithography.

The **medium's** ability to reproduce images and create unique visual qualities has influenced everyone from book publishers to graphic designers.

Woodcuts and linocuts share a graphic quality because the relief process forces you to create images with flat planes of colour. Linocuts, which emerged in the 20th century, also fall under the category of relief printmaking, but instead of carving from a block of wood, linocuts are made by cutting into a sheet of linoleum.

This smooth material has no directional grain, so you are free to carve in any direction you like, and can use woodcut or engraving tools. Since linoleum's surface is smooth, it only leaves a slightly spongy, grainy texture behind.

This technique is frequently introduced to printmaking beginners because it's easy to learn, and its low-cost materials make it relatively accessible.



Under

water

#### How can line express meaning?

Mark making describes the different lines, dots, marks, patterns, and textures to create in an artwork. It can be loose and **gestural** or controlled and neat. It can apply to any material used on any surface: paint on canvas, ink or pencil on paper, a scratched mark on plaster, a digital paint tool on a screen, a tattooed mark on skin. Artists use gesture to **express** their feeling and emotions in response to something seen or something felt – or gestural qualities can be used to create a purely **abstract composition**.

For pencil or pen-and-ink drawing, using *hatching* is one of the easiest and cleanest ways to fill in the dark areas. By drawing fine lines that are more or less parallel, the area as a whole is perceived as being darker than the individual lines are in reality. *Cross Hatching* adds a second layer of lines that are drawn in the opposite direction. The second layer of lines are applied at right angles. Using cross hatching builds the **illusion** of darker tones.

*Stippling* involves placing individual dots across a surface in a pattern that will be identifiable, especially when viewed from a distance; the further you are, the more your mind is forced to fill in the gaps on its own. Basically, instead of drawing a circle, you compose this shape with tiny dots, and shade it the same way to create the **impression** of depth.

#### How do you think Art will look in the future?

Fine arti artwork,



**Illustrator -** Illustrators work to a brief to create designs for products such as books, cards and clothes. You can start out by taking on small or unpaid commissions and freelancers can register with the Association of Illustrators to access resources and opportunities for self-promotion.

**Graphic designer -** Graphic designers create clear and eye-catching graphics for media products such as websites, magazines and advertisements.

**Photographer -** Photographers take and edit photos according to a brief and usually specialise in an area such as commercial photography (including areas such as weddings or photojournalism) or fine art photography.

**Interior designer -** Interior designers design and renovate interiors according to the wishes of clients, considering cost, the type of building and the space they are working with – giving them an opportunity to use both creative and practical skills.

**Curator -** Curators look after and organise artworks that a museum or gallery owns or has on loan, often specialising in a specific style or period.

**Art therapist -** Art therapists use art to guide and help people suffering from mental or physical health problems.

**Product designer -**Product designers design and improve everyday items according to a brief, and often create and test prototypes. A good level of computer literacy is essential for this.

# Year 9 Design

#### Do all ideas come from another?

Artists and designers find stimuli in the world around them or research a particular topic to find stimuli. They use this material to help them generate a personal creative response in their work.

A stimulus is something which interests an artist or designer and gives them new ideas. A stimulus can be as simple as a word or as complex as a novel, person, place or an entire culture. The plural is stimuli.

In design work, carrying out market research might suggest possible starting points. You may also work from a source of inspiration or from a design problem as a stimulus to help you generate ideas.

There are many different ways to respond to stimuli for design work. You could:

- Base a list or a spidergram on your design brief to explore possibilities.
- Make a collage of market research images in your sketchbook or make a moodboard .
- Make a collection of images of designers' work that you particularly admire.
- Make a collection of images relating to your source of inspiration.
- Make 3D forms based on your source of inspiration, if appropriate.
- Take photographs.
- Doodle some initial ideas in your sketchbook.
- Make drawings based on your source of inspiration.

#### Do designers need to follow rules?

Designers use a brief to give them guidance and focus. A brief helps define the design problem and gives details on important considerations and constraints.

Once they have decided on a basic design problem, they then expand on it to create your brief.

To do this, they identify key considerations for the brief. These can be:

- aesthetic considerations these relate to the appearance of a design
- functional considerations- these relate to the purpose of a design
- market considerations these relate to who a design is for

By creating a design brief, designers can see if they have been successful or not once they've produced their final idea.

Developing Successful Ideas



#### Do you only need one good idea?

Developing ideas is part of the creative process for artists and designers. By exploring and refining ideas, effective decisions can be made about the final piece of artwork or design solution. There are many ways to develop ideas for design.

**Refining Your Ideas** Refinement does not involve major changes, but is about making small changes which improve the idea in some way.

This might be done by:

- Varying a technique eg producing a graphic design using software to achieve a more professional look
- Producing a jewellery or textile design using different materials
- Modifying an idea so that it functions more effectively or looks more aesthetically pleasing.
- Changing a particular part of a design eg changing a handle on a product so that it can be picked up more effectively.
- Enhancing the idea by experimenting with materials that give a better finish.
- Altering one visual aspect eg changing the type of repeat pattern in a textile design, or changing the scale of an element to make a design look more interesting.
- Fine-tuning a design through small changes eg making a chair design balance more effectively.
- Changing the position of particular elements - eg re-arranging windows in an architectural model to improve the use of natural light in the building.

| Drama Keywords             |  |  |  |
|----------------------------|--|--|--|
| Narration                  | To tell a story/information of what is happening to the audience.  |  |  |
| Flashback/<br>Flashforward | scene which shows events from before or after the main action of the play. It<br>an give extra information about the plot or help to develop characters.                       |  |  |
| Split-staging              | The stage is split into different areas representing different places or times.  |  |  |
| Freeze Montage             | Three or more Tableaux linked together, to show a situation/event.   |  |  |
| Conscience Alley           | One character walks down the middle of two lines people (in character or not)<br>and each person gives the character gives them advice about a decision they<br>have to make.  |  |  |
| Expression                 | Use of Facial Expression to show how you feel.   |  |  |
| Tone of Voice              | The emotion heard in your voice of this character.   |  |  |
| Body Language              | To show your emotion towards others/the situation in your body.  |  |  |
| Posture                    | How a character stands, e.g. upright, hunched, slumped.  |  |  |
| Movement                   | How the character physically inhabits the character and travels around the stage.  |  |  |
| Analyse                    | To look at the information provided and break it down to identify and interpret<br>the main points being raised. You need to talk about specific effects this has in<br>Drama. |  |  |
| Evaluate                   | To evaluate is to make a personal judgement about the performance using the available evidence.  |  |  |

#### Year 9 Drama - Spring Term Blood Brothers

Key Knowledge

- You will continue to develop your performance skills - both vocally and physically in this unit
- You will learn about the context of the play Blood Brothers, by Willy Russell
- You will explore the characters in the story, and develop responses to key events that happen to them during the play
- You will get to use set, props and lighting to enhance your performances
- You will work together to create exam style performances using extracts of the script





Drama techniques, skills and GCSE Drama keywords.

# Morals and Ethics

Rationalist: Using your logic Empiricist: Using your senses Natural law: God given rules that are innate Evolution: Survival of the fittest Psychologist: someone who studies the human mind and human emotions and behaviour Atheist: someone who believes in no God Theist: someone who believes in one or more gods Agnostic: someone who is not 100% sure there is or is not a God or someone who thinks you cannot know for certain whether there is a god Humanist: someone who believes that human reasoning is the highest authority.

**Plato** (born c427 BCE) was a rationalist. He said you need to use your *brain* to <u>work out what is true</u> -<u>reason it out</u>. He thought that ordinary people were like <u>prisoners</u> who had got <u>trapped in a cave</u>. The only little bit of the outside world the prisoners got to see was like shadow puppets. The firelight made <u>the shadows of the outside</u> world look like MONSTERS.

Merth

Aristotle (born c384 BCE) was a student of Plato. He strongly disagreed with Plato. He believed you need to <u>use your senses</u> to find out what is true obviously. He was an empiricist.

Thomas Aquinas (1225-1274 CE): The <u>First Cause</u> argument and the <u>Design</u> argument both prove that <u>God exists</u> as he is the only one who could have made the universe.

**Descartes** (born 1596 CE) thought he couldn't trust anything. He did reason that he was a thinking thing; '<u>I think, therefore I am</u>.' His trademark argument was that the idea of God is imprinted on the brain. <u>God is perfect and so must exist</u>. **Charles Darwin** (1809-1882 CE) wrote On the Origin of Species and introduced the theory of <u>evolution by</u> <u>natural selection</u>. He said the world was not made quickly and was not made exactly as it is today. He saw the results of natural selection in birds; <u>survival of the fittest</u>.



Karl Marx (1818-1883 CE) was an atheist. He described religion as '<u>the opium of the people</u>.' He compared religion to an addictive, pain killing drug that enabled the <u>ruling classes to oppress</u> the working classes.

**Sigmund Freud** (1856-1939 CE) was a psychologist who said <u>we are all scared</u> of not having a parent, injustice and dying. He said <u>religion</u> was a 'cure' for the fear of these 3 things.



#### Humanism

Humanists believe you should <u>use reason</u>, <u>evidence</u> <u>and science</u> to find out what is true. It is more than not believing in God - it is about how you live your life; <u>make</u> <u>the absolute most of this life</u>.





#### Suggesting Ideas

In my opinion... I wonder if... I think ... because ... lagree with... because... I'd like to raise a new point ... Some... believe that... because... Some... argue that... because ...

#### Making Connections & Building Ideas

#### :Q:Go further

I would like to build on what ... said ... I would like to give an example/counter example... I'd like to seek clarification on... I'd like to refer back to ... Links can be made between ... and ... A connection could be made between ... and ... because...

#### Crime and Punishment

Aims of Punishment -

- -Deterrence: put people off committing crime
- -Reformation: reform the criminal
- -Retribution: make the criminal pay for what they did
- -Justice: ensure the right and fair thing is done Key terms

Conscience- our sense of right and wrong Evil- morally wrong, wicked, linked to the devil Forgiveness- letting go of anger toward someone Hate crimes- crime committed because of prejudice

Crime- breaking the law; against a person, property or the state

Corporal punishment- physical hurt as punishment Capital punishment- death penalty Imprisonment- locking someone up in jail Probation order- monitoring behaviour Parole - release from prison with monitoring

# Talk like a

#### Challenging Ideas

I disagree with ... because ... To counter-argue what... said... I respect what... has said, however... I appreciate your point, however... I would like to ask... a question to ...

#### C: Go further

I've spotted an assumption with ... An alternative perspective to ... would be ...

Giving & Interpreting Evidence

The quote could be interpreted as... A contrasting interpretation would be ... An example to support ... would be ... This implies that ... The statement suggests...

#### :Q:Go further

A source of wisdom to support... is... From this I can infer...

The Parable of the Good Samaritan - NIV An expert in the law stood up to test Jesus. "Teacher... what must I do to inherit eternal life?"..."Love the Lord your God with all your heart and with all your soul and with all your strength and with all your mind and, love your neighbour as yourself."...the man asked"And who is my neighbor?" Jesus said: "A man was going down from Jerusalem to Jericho, when he was attacked by robbers. They stripped him of his clothes, beat him... leaving him half dead. A priest ... passed by on the other side. So too, a Levite... But a Samaritan (his enemy) ...took pity on him; ...bandaged his wounds ... put the man on his own donkey, brought him to an inn and took care of him ... (Jesus asked) "Which of these three do you think was a neighbour ...? The expert in the law replied, "The one who had mercy on him." Jesus told him, "Go and do likewise."

#### Ethical theories - ways of deciding right and wrong



Thomas Aquinas (1225-1274) believed that all humans were built with an inbuilt knowledge of Gods' **natural Law**. These were to protect the innocent, reproduce, live in society, worship God and educate children. Therefore, these laws are absolute.

Immanual Kant (1724-1804) introduced duty based





PLEASURI



Utilitarianism is an ethical theory from Jeremy Bentham (1748-1832). He believed that we should use **relative morality** to make decisions. Bentham said that we should use the hedonic calculus to make decisions. Pleasure - pain = the right choice

Joseph Fletcher (1905-1991) put forward situation ethics. He argued that choices need to be made based on the circumstances. Fletcher was influenced by his Christian values of Love and the Good Samaritan. He believed that we should make decisions based on relative morality.



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Absolute morality: some things are always right, or always wrong. Circumstances don't make a difference. **Relative morality**: what is considered right or wrong depends on circumstances. It depends on what is happening in society now.

**Abortion**: The termination of a pregnancy Euthanasia: The ending of a life for reasons of

#### compassion

**IVF:** In vitro fertilization Genetic engineering: The changing of a genetic structure



### Year 8 Music: Looping and Beatbox

| D.A.W           | Digital Audio Workstation – Electronic software used for<br>recording, editing & producing audio files. Has meant a<br>generation of "bedroom" producers has emerged          |  |
|-----------------|---|--|
| Sequencer       | The sequencer allows you to organise your layers into an<br>arrangement / structure<br>This is where you move blocks around to produce the whole<br>piece                     |  |
| Audio           | Real sound which has been recorded in using a microphone or D<br>It looks like a soundwave  |  |
| Track           | Each track contains audio or midi sounds  |  |
| Looping         | Repeating a pattern again and again   |  |
| MIDI            | Musical Instrument Digital Interface, this is a digital instrument.<br>Computer information translated into music (opposite of audio).<br>It can be changed after it is input |  |
| Sampling        | The reuse of a sound recording in another piece of music  |  |
| Quantisation    | using a <u>DAW</u> you <u>can</u> quantise notes, this means if you played<br>them out of time they can be automatically placed in the correct<br>location (in time).         |  |
| Synthesiser     | A technique of generating sound using electronic hardware from<br>scratch. Replicates sounds. Can be a keyboard with a bank of<br>sounds                                      |  |
| Drum<br>Machine | A programmable electronic device able to imitate the sounds of drum kits and beats (e.g. Beatmaker)   |  |
| Effects / FX    | Changing the way something sounds e.g. Reverb, Delay (Echo), Chorus,  |  |

|             | Distortion, Tremolo, Phaser   |  |
|-------------|---|--|
| Mixing      | Audio mixing is the process of assembling all the tracks and blending &<br>balancing them together. Tracks are blended using various processes such<br>as EQ, Compression and Reverb. Each input has a channel. Gain, Pan & EQ<br>can be adjusted |  |
| Engineer    | The engineer handles the sound using the mixer, the sequencer & the effects. They are responsible for the end sound   |  |
| Technician  | Is responsible for the equipment & makes sure it works, is in tune and<br>placed correctly  |  |
| Compression | this is the narrowing of the dynamic range of a recording. It is like squeezing the volume levels so the quiet parts become louder and the loudest parts softer.  |  |
| EQ          | Equalization, adjusting the volume levels of certain frequencies. For<br>example, you can cut out the bass and boost the higher frequencies.  |  |
| Reverb      | One of the oldest of all audio effects, it aims to recreate the natural ambience of real rooms and spaces, almost like an echo.   |  |
| Panning     | The placing of sound within the stereo field (left/right speakers)  |  |
| Delay       | An effect added which repeats a sound regularly creating an echo effect   |  |



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### YEAR 9 PE - HANDBALL KNOWLEDGE ORGANISER

#### Handball Set Plays

Set plays can either be from a restart in play or a set routine during open play.

Strategies during set plays can include but aren't limited to:

- Screening
- Switching of the play
- Counter attacking



#### **Rules and regulations**

**Dribbling:** You are permitted one go at dribbling, then must either; shoot or pass the ball after you stop dribbling the ball.

**Travel:** You are permitted three steps once you stop dribbling before you must either; shoot or pass the ball.

**Passive play:** It is not permitted to keep the ball in the team's possession without making any recognisable attempt to attack or to shoot on goal. Prior to a penalty being awarded, a forewarning will be issued by the referee to give the team an opportunity to change its way of attack to avoid losing possession.

Goalkeeper Area: Only the goalkeeper is allowed to enter the goal area.

The goalkeeper throw, awarded when:

- Someone from the opposing team enters the goal area.
- Either the keeper of the attacking team had the last touch of the ball before going out behind the goal-area line.
- The goalkeeper has control of the ball inside the goal-area.

#### Attacking Tactics and strategies

Jump to shoot before feet touch the floor and do not enter the goal area when shooting.

Quick passing, switching the ball from player to player to draw away defenders and create space to shoot.

Using fakes and dummies to trick defenders and goalkeeper

#### Defending Tactics and Strategies

Man-to-man: each member on your team picks a player on the other team and marks them directly. When done right, it can work really well, however, it is physically tiring and if one person doesn't cover their mark properly, it can leave them open to score.

Zone defence: all of your team members defend the entire zone. The most effective way to do this is to line up on your crease to limit the attacking teams scoring opportunities; this directly protects the goal area.

#### Theory links:

Predominant muscles used during a pass: Bicep & tricep, deltoid & pectoralis major. Components of fitness required to be successful in Handball: Coordination, Agility, Speed, Balance, Power.

#### Fouls and Unsportsmanlike Conduct

#### It is permitted to:

- use arms and hands to block or gain possession of the ball;
- use an open hand to play the ball away from the opponent from any direction;
- use the body to obstruct an opponent, even when the opponent is not in possession of the ball;
- make body contact with an opponent, when facing him and with bent arms, and maintain this contact in order to monitor and follow the opponent.

#### It is not permitted to:

- pull or hit the ball out of the hands of an opponent;
- block or force away an opponent with arms, hands or legs;
- restrain or hold (body or uniform), push, run or jump into an opponent;
- endanger an opponent (with or without the ball).



### YEAR 9 PE - TABLE TENNIS KNOWLEDGE ORGANISER

#### <u>Topspin</u>

- Stand side on with your knees bent.
- Keep your eyes on the ball and your head still.
- Start your with your bat below the ball and brush the ball from bottom to the top, whilst pushing the ball over the net.

#### When should I use a topspin shot?

- When you want to play more of an attacking shot
- Change the pace of the play
- Rush your opponent as the bounce will bounce higher
- When you have a little more time and the ball has bounced higher.

#### What tactics can I use to outwit my opponent?

- Hit the ball low to net, particularly if they like to play attacking shots
- Identify your opponent's weaker side
- If your opponent is static, keep changing the direction of the ball
- If you like to attack, consider playing a short, low shot first so that your opponent has to lift the ball.
- Adapt as you play.



#### When should I use a push shot?

- When you want a safe return in a specific area.
- Change the pace of the play
- Defend when your opponent is attacking



#### What type of serve should I use?

- Using a variety will help you not to become predictable to your opponent
- Use your strongest serve when you need it the most
- Serve to your opponent's weakness
- Limit serving to the area of your opponent's strength.

### TABLE TENNIS RULES

#### <u>Serve</u>

Stand behind the table

Hold the ball in a flat palm so your opponent can see it.

Throw the ball a minimum of 6 inches in the air.

Hit the ball behind the white line, at the back of your table

Hit the ball on your side the table and then your opponents.

You only get one attempt.

If it hits the net and lands over the net, it is a 'let' and you'll need to retake the serve

#### <u>Doubles</u>

The serve must bounce once in diagonally opposition rectangles.

The server and receiver rotate every two points.

Teammates must alternate who hits it over when into a rally

#### **Open Play**

The ball can only bounce once on your side of the table.

You must hit the ball once so it lands on your opponent's side of the table.

If you touch the net, it is your opponent's point.

If it hits the net and lands in, it is seen as a lucky shot.

#### <u>Scoring</u>

The winner is the player who reaches 11 first but if gets to 10:10, you have to win by two clear points.

Each player takes two serves each.

You can score points on both your serve and your opponents serve.

A point is awarded if:

- The ball bounces twice on your side of the table
- Volley the ball
- Don't return the ball to your opponent's side of the table 35

# YEAR 9 PE: RUGBY

### Skills and Techniques:

Running with the ball - Carry the ball in two hands, accelerate into spaces, run direct and look to pick gaps in defensive lines. Draw players towards creating space for others to run into.

Passing (Offloading) - Pass with accuracy over speed, good communication prevents mistakes. Always be prepared to receive a pass with your hands up ready. Throw a pass you'd like to receive.

Tackling - Low body position, shoulder drive below the hip, head safe side, lock arms to prevent leg drive, try to land on the tackled player, release once player is fully grounded.

Rucking - Low body position hips above shoulders, stay on feet if you want to play the ball. Drive opposition players off or create a solid base to play from.

### Rules:

- Game starts and restarts with a kick off.
- Three officials- Referee and two touch judges.
- Passing from the hand must travel level or backwards to the receiver.
- Tackling must be below shoulder.
- If a player knocks on (drops the ball forward) the opposing side will gain possession via a scrum.
- □ You may not tackle a player in the air.
- You must enter a ruck from the back foot of your side of the ruck.
- Any player in front of a player kicking must wait for the kicker to pass or they will be offside.

#### Positions:

Forwards: Prop (open / tight head). Hooker Second row (2) Back row (3) Backs: Scrum Half Fly Half Inside centre Outside Centre Winger (Left / Right) Fullback Total number of players 15

### Key Words:

Pass, Run, Tackle, Ruck, Maul, Scrum, Penalty, Free-kick, Knock-on, Forward pass, High tackle, Defensive line, Scissor, Loop Tactics:

→ Draw players to create spaces for others.

 $\rightarrow$  Run direct and look for gaps in the defence.

- → Straight defensive line.
- → Uses different running lines and moves to create scoring opportunities.

#### Scoring System:

- → Try touching the ball down in the in goal area. 5 points
- → Conversion taken after a try 2 points
- → Penalty kick 3 points.
- → Drop Goal 3 Points
- $\rightarrow$  Most points at the end wins



# Year 9 PE - Gymnastics

#### KEY TERMS

Sequence; A sequence is a series of movements which flow together. When composing a sequence it must have a clear start and end. Think of this at the capital letter to start a sentence and a full stop to end it.

Any gymnastics routine should aim to be aesthetically pleasing and display the followina:

- BODY TENSION
- Control
- Clarity of shape
- Flow
- Extension

#### WHAT FITNESS TEST WOULD YOU DO FOR EACH COMPONENT OF FITNESS?

| Balance, | Muscular Strength, | Flexibility |
|----------|--------------------|-------------|
|----------|--------------------|-------------|

Coordination, Agility, Power, Speed.

Muscular Endurance, **Reaction Time.** 

What fitness tests do you need to be good at for gymnastics?

How could you improve each of them?

Set yourself a weekly target to improve your health and fitness.

#### SKILLS IN ISOLATION

Tuck

Pike

Star



Forward roll Backwards roll Through vault Straddle vault

#### PERFORMANCE

#### Apparatus

Pommel horse, rings, high bar, parallel bars, vault, balance beam, asymmetric bars.

#### Floor routine

Create a sequence combining and linking key shapes and skills. Rhythmic routine

Ball, Clubs, Rope, Ribbon, Hoop



A gymnast must create their own routines at an appropriate skill level for his/ her degree of difficulty.

No jewellery, body piercing or adornments of any kind are permitted

A judge panel usually scores gymnastics competitions.

Gymnasts have two different scores, the D score (difficulty of the routine) and the E score (execution of the routine aka how neat and tidy it is!).

All **gymnasts** begin with a 10.0 execution **score** which then has points removed for faults such as bent legs, arms and falls.

