

**Mathematics**

- 1) **What are the four operations?** Addition, subtraction multiplication and division.
- 2) **What is a factor?** An integer that divides exactly into another integer without a remainder.
- 3) **What is a multiple?** A value you get when you multiply any number by an integer.
- 4) **What is an integer?** A whole number.
- 5) **What does ascending mean?** Going from smallest to largest.
- 6) **What does descending mean?** Going from largest to smallest.
- 7) **What does  $>$  mean?** Greater than.
- 8) **What does  $<$  mean?** Less than.
- 9) **What does  $\geq$  mean?** Greater than or equal to.
- 10) **What does  $\leq$  mean?** Less than or equal to.
- 11) **What does  $\neq$  mean?** Not equal to.
- 12) **These symbols all replace which other symbol in an equation?** The equals sign.
- 13) **What is the inverse of addition?** Subtraction.
- 14) **What is the inverse of subtraction?** Addition.
- 15) **What is the inverse of multiplication?** Division.
- 16) **What is the inverse of division?** Multiplication.
- 17) **What does inverse mean?** The opposite.
- 18) **What does BIDMAS stand for?** Brackets, Indices (Order), Division, Multiplication, Addition, Subtraction.
- 19) **Define what a prime number is.** A number with only two factors- one and itself.
- 20) **List the first 10 prime numbers.** 2, 3, 5, 7, 11, 13, 17, 19, 23, 29.
- 21) **Define what a square number is.** The answer when I multiply any number by itself.
- 22) **List the first 10 square numbers.** 1, 4, 9, 16, 25, 36, 49, 64, 81, 100.
- 23) **What is the inverse of squaring a number?** Square root.
- 24) **What is the opposite of cubing a number?** Cube root.
- 25) **What is a divisor?** The number being divided.
- 26) **What is a dividend?** What a number is being divided by.
- 27) **What is a quotient?** The answer to a division.
- 28) **What is a multiplier?** What a number is being multiplied by.
- 29) **What is a multiplicand?** The number that is being multiplied.
- 30) **What operation would you use when the word 'share' is used?** Division.
- 31) **What is an equation?** A mathematical statement that shows that two mathematical expressions are equal.
- 32) **What is an expression?** A set of terms combined using the operations +, -, x or  $\div$  and does not have an equal sign.
- 33) **What is an identity?** An equation which is always true, no matter what values are substituted.
- 34) **What is a formula?** A mathematical rule or relationship.
- 35) **What operation would you use when the word 'sum' is used?** Addition.
- 36) **What operation would you use when the word 'difference' is used?** Subtraction.

# English

## Autumn 1: Transitional

- 1) What is emotive language? Words and phrases that make the reader feel something.
- 2) What are some possible connotations of the colour blue? Sadness, calm.
- 3) What does 'tone' mean? The feeling associated with a piece of writing.
- 4) What does 'sinister' mean? Giving the impression that something harmful is happening or will happen.
- 5) How does imagery enhance writing? Imagery appeals to the reader's senses and creates vivid mental pictures, making the poem more engaging and expressive.
- 6) Write your own simile. Using 'like' or 'as' in a comparison. Example: "The baby's laughter was as sweet as honey."
- 7) Personify trees in the wind. Giving human characteristics to a non-human. Example: "The trees waved in the wind".
- 8) Why do writers use metaphors? Writers use metaphors to make their writing more exciting and creative by comparing things in a special way that helps us imagine and understand better.
- 9) What is a word meaning 'filled with horror or shock'? Aghast.
- 10) What are: tenor, vehicle and ground used to create? Metaphors.
- 11) What does deconstruct mean? To break something into parts.
- 12) If you are 'pondering' something, what are you doing? Thinking.
- 13) What is an inference? An educated guess, using evidence.
- 14) How can you quickly engage a reader? Using a hook at the beginning.
- 15) What is the A in the mnemonic AFOREST? Alliteration.
- 16) What structural device means the start and end are the same/similar? Cyclical.
- 17) What does sombre mean? Dark or dull in character.
- 18) What is the language device in the sentence: 'As cold as ice'? Simile.
- 19) What does a SEIZE paragraph stand for? Statement, Evidence, Inference, Zoom in, Effect.
- 20) What does 'murky' mean? Dull and dark in colour.

## Gap Fill

- 21) Narrative writing tells a story.
- 22) It has a clear beginning and end.
- 23) The opening line acts as a "hook" to compel the reader into further reading.
- 24) It contains characters, including their thoughts and motivations.
- 25) It often contains a problem – an intriguing event or question to be answered.

## Autumn 2: Raven's Gate

- 1) Define narrative. A spoken or written account of connected events; a story.
- 2) Define genre. A style or category of art, literature or music.
- 3) Name two themes in Raven's Gate. Peer Pressure, Supernatural.
- 4) What are the characteristics of Matt? Protagonist, Vulnerable, Brave, Impulsive.
- 5) List 3 key features of Gothic Literature. Fear of the unknown, isolated settings, the supernatural, a heroic protagonist.
- 6) Define protagonist. The main character/ hero.
- 7) Define antagonist. The character who goes against the hero- the villain.
- 8) Finish this key quotation: 'You have to take responsibility...' You have to take responsibility for who you are.
- 9) When do you use a full stop? At the end of a sentence. For abbreviations.
- 10) Which part of the narrative structure is at the beginning? The exposition.
- 11) Define empathy. To understand and share the feelings of others.
- 12) What is the name of the cat in Ravens Gate? Asmodeus.
- 13) Define Pathetic Fallacy. Using the weather to create tone/atmosphere.
- 14) What is the name of the project that Matt is sent on? LEAF.
- 15) Define supernatural. Unable to be explained by laws or the science of nature.
- 16) 'She was sipping her tea but her eyes never left him. They were devouring him.'  
What does the word 'devouring' infer? 'Devouring' infers that Jayne is staring at Matt, trying to work out his thoughts. She can't look away and Matt feels uncomfortable because devouring means to rapidly eat.
- 17) What does 'uncanny' mean? The feeling that something is strangely familiar.
- 18) What comes at the end of the narrative structure? Resolution.
- 19) When would you use an exclamation mark? To show a strong sense of emotion.
- 20) What is horror? An intense feeling of shock, fear or disgust.
- 21) What is a plot twist? An unexpected turn in a story.
- 22) What is light relief? Something that is pleasant and amusing after something sad or serious.
- 23) What is an analysis? Looking at something in detail.

## Science

- 1) **What are examples of abiotic factors?** Soil pH, temperature, humidity, carbon dioxide concentration.
- 2) **How does a greater biodiversity lead to a more stable ecosystem?** Organisms will have different species to depend on (e.g. different sources of food) and therefore are less affected by a change to one population.
- 3) **What would happen if an organism was removed from an ecosystem?** There would be knock on effects throughout the food web. The organisms' food source will increase in number, whereas their predator may initially decrease in number.
- 4) **How can biodiversity be measured?** Random or systematic sampling using a quadrat and a transect.
- 5) **How would deforestation affect an ecosystem?** It would remove a habitat from the environment, reducing biodiversity as organisms begin to die or migrate elsewhere.
- 6) **What are examples of biotic factors?** Food availability, ease of finding mates.
- 7) **Where does energy in a food chain begin/come from?** The sun.
- 8) **What do the arrows in a food chain or food web represent?** The direction of energy transfer between organisms.
- 9) **How do plants use the sun's energy to make food?** Photosynthesis.
- 10) **What is a stable ecosystem?** Where the relative number of each organism stays constant due to all the organisms supporting each other.
- 11) **What would happen if the producer was removed from the ecosystem?** All organisms would die if they couldn't adapt to eating another producer or migrate elsewhere.
- 12) **What is competition?** Where organisms fight/compete with each other for limited resources.
- 13) **Why are decomposers important in any ecosystem?** They cycle materials such as Carbon and Nitrogen, which are found in living organisms back into the environment.
- 14) **Why do predator numbers decrease after the prey numbers decrease?** There is less food available and therefore not all will survive and reproduce.
- 15) **Why are insects like bees important to farmers?** They pollinate plants/crops.
- 16) **What is an organism that starts a food chain by producing its own food called?** Producer.
- 17) **How can toxins enter a food chain?** Fertilisers, weed killers and urban street run off.
- 18) **What is ecology?** The study of interactions between organisms and their environment.
- 19) **What is the organism at the top of a food web called?** Apex predator.
- 20) **What is a keystone species?** A keystone species is an organism that helps define an entire ecosystem. Without its keystone species, the ecosystem would be dramatically different or cease to exist altogether.
- 21) **State 3 things that plants compete for.** Light, space, water and mineral ions.
- 22) **State 3 things that animals compete for.** Food, mates, territory.
- 23) **What will happen to the number of predators if the number of prey increases?** Predators will also increase.
- 24) **What do the arrows in the food chain represent?** The direction of energy.
- 25) **State 2 reasons that cause organisms to become endangered and extinct?** Introduction of new predators, loss of habitats.
- 26) **What does a food chain show?** The movement of energy from one organism to another.