

## Mathematics

- 1) Define the word factor. A factor is an integer that divides exactly into a whole number without a remainder.
- 2) Define the word multiple. A number you get when you multiply a certain number by an integer.
- 3) What does inverse mean? The opposite.
- 4) List the first 10 prime numbers. 2, 3, 5, 7, 11, 13, 17, 19, 23, 29.
- 5) List the first 12 square numbers. 1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144.
- 6) List the 5 first triangular numbers. 1, 3, 6, 10, 15.
- 7) Define what a prime number is. A number with only two factors, one and itself.
- 8) What is an equation? A mathematical statement that shows that two mathematical expressions are equal.
- 9) What is an expression? A set of terms combined using the operations +, -, x or ÷ and does not have an equal sign.
- 10) What is a formula? A mathematical rule or relationship.
- 11) What is an identity? An equation which is always true, no matter what values are substituted.
- 12) What symbol does <, >, ≥, ≤ and ≠ replace? The equals sign.
- 13) What does > mean? Greater than.
- 14) What does < mean? Less than.
- 15) What does ≤ mean? Less than or equal to.
- 16) What does ≥ mean? Greater than or equal to.
- 17) What does ≠ mean? Not equal to.
- 18) What do these symbols cause an equation to become? An inequality.
- 19) Define what a lowest common multiple is. The lowest quantity that is a multiple of two or more given numbers.
- 20) Define what a highest common factor is. The highest number that can be divided exactly into each of two or more numbers.
- 21) What part of  $y = mx + c$  is the gradient.  $m$ .
- 22) What part of  $y = mx + c$  is the  $y$  intercept.  $c$ .
- 23) Is the  $y$ -axis horizontal or vertical? Vertical.
- 24) Is the  $x$ -axis horizontal or vertical? Horizontal.
- 25) How many minutes are in an hour? 60.
- 26) How many hours are in a day? 24.
- 27) How many seconds are in a minute? 60.
- 28) How many days are in a non-leap year? 365.
- 29) How many weeks are in a year? 52.
- 30) How many days are in a fortnight? 14.
- 31) What is the formula for finding the area of a square? Base x height (or length x width).
- 32) What is the formula for finding the area of a triangle?  $\frac{\text{Base} \times \text{height}}{2}$ .
- 33) What is the formula for finding the area of a trapezium?  $\frac{(a+b) \times h}{2}$ .
- 34) What is the formula for finding the area of a circle?  $\pi r^2$ .
- 35) What is the formula for finding the circumference of a circle?  $\pi d$ .
- 36) Define what area is. The space inside a shape.

- 1) **What is prejudice?** Preconceived opinion that is not based on reason or actual experience.
- 2) **What is discrimination?** The unjust treatment of different categories of people, eg. age, sex, ethnicity, disability.
- 3) **What does it mean to be defiant?** Resisting and refusing to follow orders.
- 4) **Who is Malala?** An activist who fights for equal education in Pakistan.
- 5) **What is a flashback?** To focus one's mind on or vividly remember a past time or incident.
- 6) **What is dialogue?** A conversation between two or more people as a feature of a book, play, or film.
- 7) **Is a flashback a structural or language feature?** Structural.
- 8) **What is identity?** Who we are and the social groups we belong to.
- 9) **What is the difference between connotation and denotation?** Connotations are the feelings linked to a word or thing. Denotation is the literal definition.
- 10) **What is a cyclical structure?** The beginning and end are the same.
- 11) **What is a stereotype?** A stereotype is a mistaken idea or belief many people have about a thing or group that is based upon how they look on the outside, which may be untrue or only partly true.
- 12) **What were the Jim Crow Laws?** A set of laws enforcing racial segregation in the Southern United States until 1965.
- 13) **What is sibilance?** Sibilance is a figure of speech in which a hissing sound is created within a group of words through the repetition of "s" sounds.
- 14) **Give an example of sibilance.** eg. Softly swaying.
- 15) **What language device is used here: 'The rain in Spain stays mainly on the plain.'** Assonance The rain in Spain stays mainly on the plain.
- 16) **What is toxic masculinity?** A set of beliefs about how men should act in society eg. Violence or hiding emotions.
- 17) **What is a refugee?** Someone who has been forced to flee his or her country because of persecution, war or violence.
- 18) **What is a summary?** A brief statement or account of the main points of something.
- 19) **What is imagery?** Descriptive and figurative language that leaves an image in your head.
- 20) **What is colloquial language? Give an example.** Casual, informal language such as slang.
- 21) **What are the different types of discrimination?** Classism, Racism, Sexism, Lookism.
- 22) **In the poem 'I am not de problem' by Benjamin Zephaniah, why does he repeat the phrase 'I am not de problem'?** Zephaniah is aware that he experiences racial abuse, but it is the fault of those who are racist.
- 23) **What is sexism?** Involves a belief that a particular sex or gender is naturally superior to another.
- 24) **Is this prejudice or discrimination? 'Heather gets turned down for an apprenticeship as a mechanic. The employer suggests that she should aim for a more feminine career that requires less heavy lifting.'** Discrimination because it involves an action.
- 25) **What is a zealot?** A person who has very strong feelings about something (such as religion or politics) and who wants other people to have those feelings.

## Autumn 2: Bone Sparrow

- 1) What is the difference between a migrant and a refugee? A refugee has been forced to leave their country whereas a migrant makes a choice.
- 2) What is persecution? Persecution-hostility and ill-treatment, especially because of race or political or religious beliefs; oppression.
- 3) What is displacement? The action of moving something from its place or position.
- 4) Why were the Australian immigration centres set up? Immigration detention centres in Australia are used to detain people who are found in Australian waters fleeing from their countries. Similarly, people who have stayed longer in the country than their visa allows have also been reported to be seen in there.
- 5) Subhi is a member of the R\_\_\_\_\_ people of Burma. Rohingya.
- 6) What is a protagonist? Give an example from a book or film. The hero of a story eg. Subhi.
- 7) What is the name of the duck who Subhi talks to? Shakespearian Duck.
- 8) Who is Harvey? A guard at the immigration centre who is kind to Subhi.
- 9) Who are the jackets? The guards at the immigration centre.
- 10) What is the name of Subhi's best friend who lives in Family Tent Four? Eli.
- 11) What are some examples of human rights? Right to privacy, freedom of expression, right to work and education.
- 12) Why can't you trust Subhi as a narrator? Because he is a child.
- 13) What is bias? Prejudice for or against one person or group.
- 14) How are the refugees in Bone Sparrow dehumanised? Lack of water, freedom, food etc.
- 15) What are two themes seen in the Bone Sparrow? Love, Hope, Family, Loss, Sadness.
- 16) Who is Subhi? The protagonist and main character living in the detention centre.
- 17) Who is the character outside of the camp? Jimmie.
- 18) What does Subhi's mother tell him 'never to look too closely at the food' he is given? It contains maggots.
- 19) What is a first person narrative? Story telling from a personal point of view ('I').
- 20) What is the presence of the bird said to symbolise? Death.
- 21) What does Subhi wish for someday? That life will be better and he won't be in the camp.
- 22) What is Eli's 'business'? Delivering items to others in the camps.
- 23) Is narrative voice an example of language or structure? Structure.
- 24) What is persecution? Hostility and ill-treatment, especially because of race or political or religious beliefs; oppression.

## 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 organisms stay constant due to all the organisms support 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.