

Assessment overview

Content domain	Total
Biology	9
Structure and function of living organisms	9
Chemistry	7
Pure and impure substances	4
The particulate nature of matter	2
The periodic table	1
Physics	8
Matter	8
Working scientifically	7

Question breakdown

Q	Reference
1	P5.1.b similarities and differences, including density differences, between solids, liquids and gases
2	C1.a the properties of the different states of matter (solid, liquid and gas) in terms of the particle model, including gas pressure
3	C1.a the properties of the different states of matter (solid, liquid and gas) in terms of the particle model, including gas pressure
4	P5.2.a the differences in arrangements, in motion and in closeness of particles explaining changes of state, shape and density; the anomaly of ice-water transition
5	B1.5.b reproduction in plants, including flower structure, wind and insect pollination, fertilisation, seed and fruit formation and dispersal, including quantitative investigation of some dispersal mechanisms
6	B1.5.b reproduction in plants, including flower structure, wind and insect pollination, fertilisation, seed and fruit formation and dispersal, including quantitative investigation of some dispersal mechanisms
7	B1.5.b reproduction in plants, including flower structure, wind and insect pollination, fertilisation, seed and fruit formation and dispersal, including quantitative investigation of some dispersal mechanisms
8	P5.4.d the light year as a unit of astronomical distance
9	P5.4.a gravity force, weight = mass x gravitational field strength (g), on Earth $g=10 \text{ N/kg}$, different on other planets and stars; gravity forces between Earth and Moon, and between Earth and sun (qualitative only)
10	P5.4.a gravity force, weight = mass x gravitational field strength (g), on Earth $g=10 \text{ N/kg}$, different on other planets and stars; gravity forces between Earth and Moon, and between Earth and sun (qualitative only)
11	WS4.b use and derive simple equations and carry out appropriate calculations
12	P5.4.c the seasons and the Earth's tilt, day length at different times of year, in different hemispheres
13	WS2.c select, plan and carry out the most appropriate types of scientific enquiries to test predictions, including identifying independent, dependent and control variables, where appropriate
14	WS2.e make and record observations and measurements using a range of methods for different investigations; and evaluate the reliability of methods and suggest possible improvements
15	WS3.c interpret observations and data, including identifying patterns and using observations, measurements and data to draw conclusions
16	WS3.c interpret observations and data, including identifying patterns and using observations, measurements and data to draw conclusions
17	C6.e the properties of metals and non-metals
18	WS4.a understand and use SI units and IUPAC (International Union of Pure and Applied Chemistry) chemical nomenclature
19	WS4.b use and derive simple equations and carry out appropriate calculations

Question breakdown

Q	Reference
20	B1.1.a cells as the fundamental unit of living organisms, including how to observe, interpret and record cell structure using a light microscope
21	B1.1.b the functions of the cell wall, cell membrane, cytoplasm, nucleus, vacuole, mitochondria and chloroplasts
22	B1.1.c the similarities and differences between plant and animal cells
23	B1.2.a the structure and functions of the human skeleton, to include support, protection, movement and making blood cells
24	B1.2.b biomechanics – the interaction between skeleton and muscles, including the measurement of force exerted by different muscles
25	B1.2.c the function of muscles and examples of antagonistic muscles
26	C3.a the concept of a pure substance
27	C3.e the identification of pure substances
28	C3.d simple techniques for separating mixtures: filtration, evaporation, distillation and chromatography
29	C3.c diffusion in terms of the particle model
30	P5.1.d diffusion in liquids and gases driven by differences in concentration
31	P5.1.c Brownian motion in gases