

Assessment overview

Content domain	Total
Biology	14
Structure and function of living organisms	5
Material cycles and energy	2
Interactions and interdependencies	4
Genetics and evolution	3
Chemistry	10
Chemical reactions	5
The periodic table	3
Materials	2
Physics	10
Energy	2
Motion and forces	4
Waves	3
Electricity and electromagnetism	1
Working scientifically	6

Question breakdown

Q	Reference
1	B3.1.a the interdependence of organisms in an ecosystem, including food webs and insect pollinated crops
2	B3.1.a the interdependence of organisms in an ecosystem, including food webs and insect pollinated crops
3	B3.1.b the importance of plant reproduction through insect pollination in human food security
4	B3.1.c how organisms affect, and are affected by, their environment, including the accumulation of toxic materials
5	C6.d how patterns in reactions can be predicted with reference to the periodic table
6	C6.c the periodic table: periods and groups; metals and non-metals
7	C6.d how patterns in reactions can be predicted with reference to the periodic table
8	P1.2.c other processes that involve energy transfer: changing motion, dropping an object, completing an electrical circuit, stretching a spring, metabolism of food, burning fuels
9	P1.2.c other processes that involve energy transfer: changing motion, dropping an object, completing an electrical circuit, stretching a spring, metabolism of food, burning fuels
10	P2.2.h non-contact forces: gravity forces acting at a distance on Earth and in space, forces between magnets, and forces due to static electricity
11	P2.2.b using force arrows in diagrams, adding forces in 1 dimension, balanced and unbalanced forces
12	P3.4.d use of ray model to explain imaging in mirrors, the pinhole camera, the refraction of light and action of convex lens in focusing (qualitative); the human eye
13	P3.4.d use of ray model to explain imaging in mirrors, the pinhole camera, the refraction of light and action of convex lens in focusing (qualitative); the human eye
14	P3.4.d use of ray model to explain imaging in mirrors, the pinhole camera, the refraction of light and action of convex lens in focusing (qualitative); the human eye
15	C7.b the use of carbon in obtaining metals from metal oxides
16	C4.c combustion, thermal decomposition, oxidation and displacement reactions
17	C7.a the order of metals and carbon in the reactivity series
18	B2.2.a aerobic and anaerobic respiration in living organisms, including the breakdown of organic molecules to enable all the other chemical processes necessary for life
19	B1.1.b the functions of the cell wall, cell membrane, cytoplasm, nucleus, vacuole, mitochondria and chloroplasts
20	B2.2.d the differences between aerobic and anaerobic respiration in terms of the reactants, the products formed and the implications for the organism

Question breakdown

Q	Reference
21	WS2.d use appropriate techniques, apparatus, and materials during fieldwork and laboratory work, paying attention to health and safety
22	WS2.b make predictions using scientific knowledge and understanding
23	P4.3.d the magnetic effect of a current, electromagnets, DC motors (principles only)
24	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
25	B4.1.e a simple model of chromosomes, genes and DNA in heredity, including the part played by Watson, Crick, Wilkins and Franklin in the development of the DNA model
26	B4.1.e a simple model of chromosomes, genes and DNA in heredity, including the part played by Watson, Crick, Wilkins and Franklin in the development of the DNA model
27	B4.1.g the variation between individuals within a species being continuous or discontinuous, to include measurement and graphical representation of variationA
28	WS3.b present observations and data using appropriate methods, including tables and graphs
29	P2.2.c moment as the turning effect of a force
30	WS4.b use and derive simple equations and carry out appropriate calculations
31	WS4.b use and derive simple equations and carry out appropriate calculations
32	P2.2.c moment as the turning effect of a force
33	B1.4.a the structure and functions of the gas exchange system in humans, including adaptations to function
34	B1.4.a the structure and functions of the gas exchange system in humans, including adaptations to function
35	B1.4.b the mechanism of breathing to move air in and out of the lungs, using a pressure model to explain the movement of gases, including simple measurements of lung volume
36	B1.4.c the impact of exercise, asthma and smoking on the human gas exchange system
37	C4.f reactions of acids with metals to produce a salt plus hydrogen
38	C4.f reactions of acids with metals to produce a salt plus hydrogen
39	C4.c combustion, thermal decomposition, oxidation and displacement reactions
40	C4.b representing chemical reactions using formulae and using equations