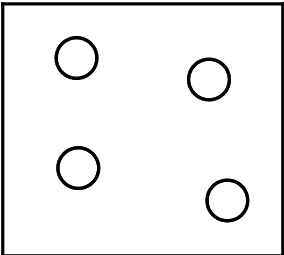
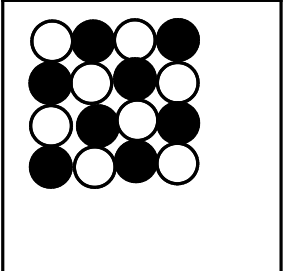


Question	Answer	Marks	Further Information
1	organ system organ tissue cell	1	all in correct order = 1 mark

Question	Answer	Marks	Further information
2(a)	any three from evaporation condensation precipitation	3	each process = 1 mark processes can be in any order Accept rainfall Accept melting
2(b)	water runoff	1	Accept any correct process from the water cycle not mentioned in (a) Accept transpiration


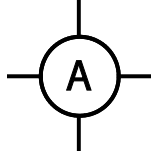
Question	Answer	Marks	Further Information
3(a)	magnesium oxide	1	Accept MgO but name takes precedence
3(b)	colour change / new substance formed / solid to powder	1	Accept there is a change in mass / the mass of magnesium after reacting is different / bright white light
3(c)(i)		1	<p>particle model should show random arrangement of at least four particles of oxygen spaced far apart.</p> <p>Accept molecules of oxygen rather than individual particles</p>
3(c)(ii)		1	<p>particle model with regular arrangement of particles, in a fixed position, showing some oxygen and some magnesium particles.</p> <p>Ignore the order of the oxygen and magnesium particles</p> <p>Note the diagram does not need to fill the box</p>

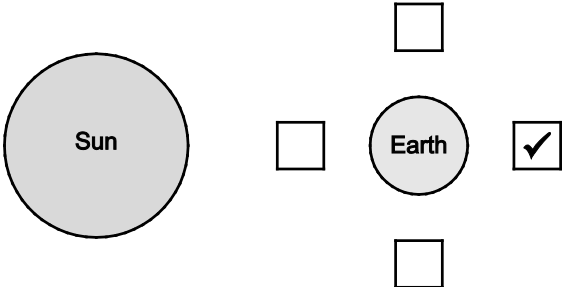
Question	Answer	Marks	Further Information
4(a)	<p> eagle (jaguar) boa constrictor (monkey) tapir (macaw) sloth (agouti) (fruit and nuts on the trees) </p>	2	all four organisms correct = 2 marks two or three organisms correct = 1 mark one organism correct = 0 marks
4(b)	energy flow (through the food web)	1	Ignore reference to what eats what
4(c)	5	1	
4(d)(i)	microorganisms / bacteria / fungi	1	Accept named examples Accept earthworms / maggots / woodlice or other detritivores
4(d)(ii)	dead material / decaying material / waste material / dead leaves / dead animals / faeces	1	

Question	Answer	Marks	Further Information
5	<p>any three from</p> <p>hard strong shiny sonorous malleable ductile high melting point high boiling point (good) thermal conductor / heat conductor</p>	3	<p>each correct answer = 1 mark</p> <p>Accept high density</p>
Question	Answer	Marks	Further Information
6(a)(i)	16 (J)	1	
6(a)(ii)	it has been transferred into the environment / air	1	Accept it spreads out
6(b)	150 (J)	1	
6(c)	<p>electric drill</p> <p>electrical energy \longrightarrow kinetic + heat + sound</p> <p>skydiver falling out of a plane</p> <p>(gravitational) potential energy \longrightarrow kinetic + heat</p> <p>girl running</p> <p>chemical \longrightarrow kinetic + heat</p>	3	<p>each correct energy transfer = 1 mark</p> <p>Accept sound</p> <p>Accept sound</p>

Question	Answer	Marks	Further Information
7(a)	A – adelic (penguin) B – emperor (penguin) C – chinstrap (penguin) D – african (penguin)	2	all four correct = 2 marks two or three correct = 1 mark one correct = 0 marks
7(b)	how many eggs do they lay each breeding season?/they lay one egg each breeding season/they lay two eggs each breeding season	1	Accept (does it have) an orange glow on its cheeks
7(c)	metre ruler / tape measure	1	

Question	Answer	Marks	Further Information
8(a)(i)	nitrogen	1	Accept N/N ₂ but name takes precedence
8(a)(ii)	oxygen	1	Accept O/O ₂ but name takes precedence
8(a)(iii)	carbon dioxide / neon / argon / krypton / xenon	1	Accept correct formula or symbols but name takes precedence Do not accept water vapour
8(b)	carbon dioxide	1	only accept gas C if it has been identified as carbon dioxide or water vapour in (a)(iii) Accept water vapour / carbon monoxide Accept correct formula but name takes precedence

Question	Answer	Marks	Further Information
9(a)		1	Do not accept 
9(b)	The metal fork is an electrical conductor because it allows particles called electrons to flow through it.	1	

Question	Answer	Marks	Further Information
10		1	more than one boxed ticked = 0 marks

Question	Answer	Marks	Further Information
12(a)	<p>any two from</p> <p>shows the different layers</p> <p>colours let us see the different layers clearly</p> <p>can study the inside of the earth which is too hot for us to visit</p> <p>can see all the layers at the same time</p> <p>the Earth is too large</p>	2	each correct answer = 1 mark
12(b)	<p>any three from</p> <p>it is not to scale</p> <p>the layers are not the correct thickness</p> <p>the layers are not made out of clay / not made from the same substance</p> <p>it does not show the movement of the layers</p> <p>it does not show if layers are solid or liquid</p> <p>it does not show inner and outer core</p>	3	each correct answer = 1 mark

Question	Answer	Marks	Further Information
13(a)	sound source	1	Accept named sound sources
13(b)(i)	rarefaction	1	Accept the particles are spread out
13(b)(ii)	compression	1	Accept the particles are close together
13(c)	vibrate	1	Accept move to and fro Accept moving forwards and backwards / left and right