

Changes in the Earth and its atmosphere

1.	(a)	carbon dioxide	1	
		<i>accept formula CO₂</i>		
		oxygen	1	
		<i>accept formulae O₂ / O</i>		
	(b)	4%	1	
	(c)	carbon dioxide has <u>decreased</u> / from 95% to 0%	1	
		oxygen has <u>increased</u> / from 0% to 21%	1	
		any one from:	1	
		(carbon dioxide decrease)		
		• carbon dioxide used during photosynthesis / by plants		
		• carbon dioxide dissolves in oceans		
		• carbon dioxide is locked up in rocks / carbonates / fossil fuels		
		(oxygen increase)		
		• oxygen released during photosynthesis / by plants		
				[5]
2.	(a)	core	1	
	(b)	(i) 3 or below / low on the Richter scale	1	
		<i>accept vibrations <u>not felt</u> / causes no damage</i>		
		<i>ignore references to injuries</i>		
		(ii) 4	1	
		(iii) movement of (Earth's / tectonic) plates	1	
		<i>allow plates collide</i>		
		(iv) (earthquakes) cannot be predicted / sudden / without warning / random	1	
		<i>ignore under / in the sea</i>		
				[5]
3.	(a)	oxygen and nitrogen	1	
		20 – 21 % and 78 – 80 %	1	
		<i>accept any two correct responses in the correct space for one mark</i>		
	(b)	(i) acid rain	1	
		<i>accept toxic gas or consequence of acid rain</i>		
		(ii) idea of the removal or use of sulphur dioxide gas (from the waste gases)	1	
		<i>do not accept remove sulfur from coal</i>		
		(iii) oxygen	1	
		<i>accept O₂</i>		
		water	1	
		<i>accept H₂O</i>		
		<i>accept hydrogen oxide / steam</i>		

(c)	any two from:	2	
	<ul style="list-style-type: none"> • it's a 'greenhouse gas' or increase greenhouse effect <i>accept action of a 'greenhouse gas'</i> • causes global warming or increase in the Earth's temperature • sea-levels rise or flooding • climate change • (polar) ice-caps melt • extension of deserts <i>mention of ozone / acid rain / global dimming = max 1 mark</i> 		
(d)	idea trap / store / lock the carbon dioxide	1	
	in the oil reservoir or under the sea bed	1	
	<i>do not accept 'into the oil' / 'under the sea'</i>		[10]
4.	(a) (i) old animals / fossils / rocks match (when the continents are put together) or (continents) fit together	1	
	<i>ignore 'they are the same shape'</i>		
	(ii) any two from:		
	<ul style="list-style-type: none"> • continents / plates cannot move (thousands of kilometres) <i>accept the continents / plates are attached to the Earth or continents / plates cannot drift / float</i> • modern / new animals are different • a land bridge (could explain the matching fossils / rocks) <i>ignore 'no evidence' 'no proof' 'no reputation'</i> 	2	
	(b) crust	1	
	<i>allow lithosphere</i>		
	mantle	1	
	year	1	[6]