

Practice test mark scheme Foundation

Q	Expected answers	Marks	Additional guidance
1	<p>a turbine boiler generator</p> <p>b i 70% ii carbon dioxide</p> <p>c nucleus</p> <p>d sun / wind / wave / hydroelectric / tidal / geothermal/ biomass</p>	<p>3</p> <p>1</p> <p>1</p> <p>1</p> <p>2</p>	<p>One for each correct label</p> <p>any two</p>
		8	
2	<p>a (i) "The leak was held safely inside a second container, which was specially designed for safety in case a leak occurred." (ii) MP3 (iii) MP1</p> <p>b it cannot be made completely safe</p> <p>c (i) the country's population will benefit (ii) people living near the site will have extra risk</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>	
		6	
3	<p>a ionising</p> <p>b there are radioactive materials in the enviroment</p> <p>c alpha → thin paper but not 1 mm Al beta → 1 mm Al but not 1 mm Pb gamma → several cm Pb</p> <p>d i oxygen-15 ii carbon-14</p>	<p>1</p> <p>1</p> <p>2</p> <p>1</p> <p>1</p>	<p>All links correct = (2) 1/2 links correct = (1)</p>
		6	
Total		20	

Practice test mark scheme Higher

Q	Expected answers	Marks	Additional guidance
1	a <ul style="list-style-type: none"> ● nucleus ● unstable ● neutrons / energy ● energy / neutrons ● fissions 	5	either order
	b sun / wind / wave / hydroelectric / tidal / geothermal/ biomass	2	Any two
		7	
2	a (i) "The leak was held safely inside a second container, which was specially designed for safety in case a leak occurred."	1	
	(ii) MP3	1	
	(iii) MP1	1	
	b it cannot be made completely safe	1	
	c (i) the country's population will benefit	1	
	(ii) people living near the site will have extra risk	1	
		6	
3	a i 6 (mSv/millisieverts)	1	
	ii each worker wears a monitoring device	1	
	b <ul style="list-style-type: none"> ● Rachal – PR ● Adam – GR ● Sohaib – PP ● Becky – AR 	3	4 correct 3 marks 3 or 2 correct 2 marks 1 correct 1 mark
	c government based on scientific data	1	
	Risks must be reduced to the lowest level that allows the work to be done.	1	
		7	
Total		20	