



**GCSE**

**Science A 4461**

*Physics 4451*

**PHY1A F & H**

**Mark Scheme**

*2007 examination - June series*

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**PHY1A (Energy and Electricity)**  
Foundation Tier

Question	<i>Key</i>			
One	<b>A</b>	chemical	<b>1</b>	
	<b>B</b>	electrical	<b>2</b>	
	<b>C</b>	kinetic	<b>3</b>	
	<b>D</b>	thermal	<b>4</b>	
Two	<b>A</b>	conduction	<b>1</b>	
	<b>B</b>	convection	<b>3</b>	
	<b>C</b>	insulation	<b>4</b>	
	<b>D</b>	radiation	<b>2</b>	
Three	<b>A</b>	hydroelectric	<b>3</b>	
	<b>B</b>	nuclear	<b>2</b>	
	<b>C</b>	wind	<b>1</b>	
	<b>D</b>	tidal	<b>4</b>	
Four	<b>A</b>	0.38	<b>4</b>	
	<b>B</b>	2	<b>2</b>	
	<b>C</b>	38	<b>3</b>	
	<b>D</b>	60	<b>1</b>	
Five	<b>A</b>	decreases	<b>2</b>	
	<b>B</b>	increases	<b>1</b>	
	<b>C</b>	is unchanged	<b>4</b>	
	<b>D</b>	rises	<b>3</b>	
Six	<b>A</b>	conclusion	<b>4</b>	
	<b>B</b>	control variable	<b>2</b>	
	<b>C</b>	dependent variable	<b>3</b>	
	<b>D</b>	independent variable	<b>1</b>	
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
Seven	<b>3</b>	<b>1</b>	<b>3</b>	<b>2</b>
Eight	<b>4</b>	<b>3</b>	<b>1</b>	<b>2</b>
Nine	<b>3</b>	<b>3</b>	<b>3</b>	<b>1</b>

**PHY1A (Energy and Electricity)**  
Higher Tier

Question	<i>Key</i>			
One	<b>A</b>	conclusion	<b>4</b>	
	<b>B</b>	control variable	<b>2</b>	
	<b>C</b>	dependent variable	<b>3</b>	
	<b>D</b>	independent variable	<b>1</b>	
Two	<b>A</b>	electrical energy	<b>1</b>	
	<b>B</b>	gravitational potential energy	<b>2</b>	
	<b>C</b>	sound energy	<b>4</b>	
	<b>D</b>	thermal energy	<b>3</b>	
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
Three	<b>4</b>	<b>3</b>	<b>1</b>	<b>2</b>
Four	<b>3</b>	<b>3</b>	<b>3</b>	<b>1</b>
Five	<b>1</b>	<b>3</b>	<b>3</b>	<b>3</b>
Six	<b>3</b>	<b>3</b>	<b>2</b>	<b>4</b>
Seven	<b>2</b>	<b>3</b>	<b>1</b>	<b>4</b>
Eight	<b>2</b>	<b>4</b>	<b>2</b>	<b>3</b>
Nine	<b>1</b>	<b>4</b>	<b>2</b>	<b>2</b>