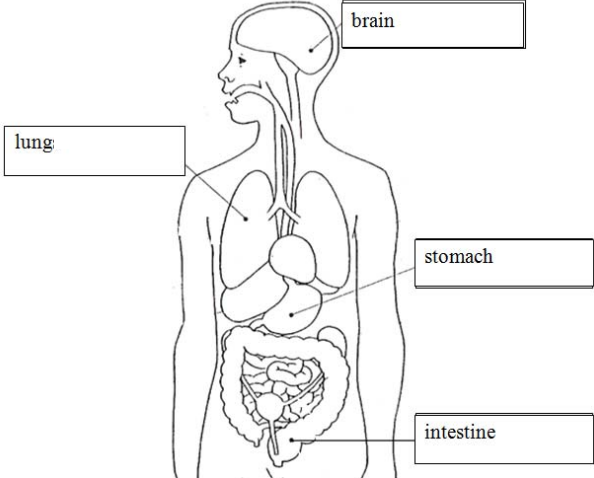
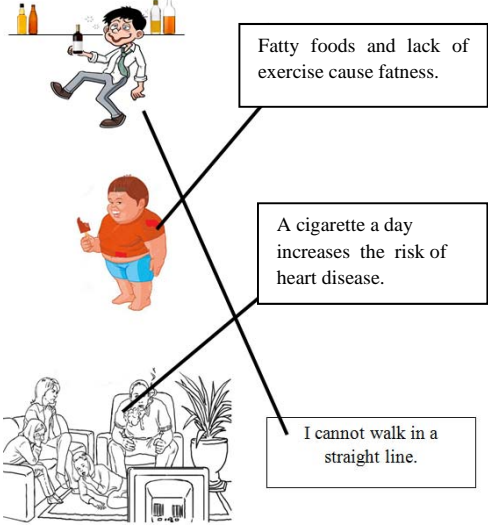

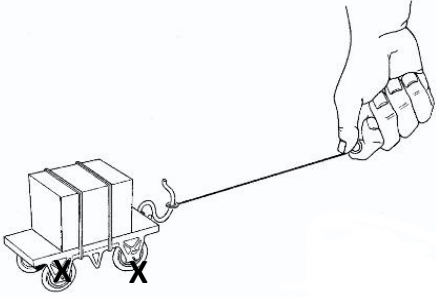
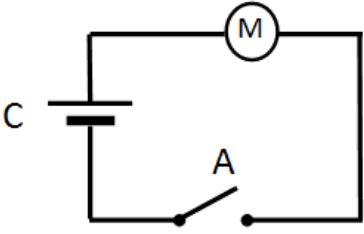


FORM 4 SCIENCE / DESIGN & TECHNOLOGY MARKING SCHEME

THE NATURAL WORLD		10 MARKS	
Question	Answer	Mark	Additional Guidelines
1		2	Award ½ mark for each correct term.
2		3	Award 1 mark for each correct match.

3	a.	Ribs. <i>Accept:</i> rib cage	1	
	b.	Protection of the lungs; Ventilation. <i>Accept:</i> to take air in/breathing	1	
4	a.	Cell membrane	1	
	b.	Controls the activity of the cell	1	
5			1	Award 1 mark if correct image is selected.

THE PHYSICAL WORLD			10 MARKS	
6	a.		1	Award ½ mark for friction between shaft and wheels and ½ mark for friction between wheels and the ground.
	b.	Applying oil ✓ Smoothing surfaces ✓	1	Award ½ mark for each correct statement.
	c.	distance moved; time taken	1	Award ½ mark for each correct quantity.
7		wind, electrical; light, electrical	2	Award ½ mark for each correct input or output energy.
8	a.	thermometer	½	
	b.	less	½	
9	a.	switch	1	
	b.	True	1	
		False	1	
		True	1	

THE WORLD OF TECHNOLOGY			10 MARKS
10	a.	Switch; on/off switch, or SPST switch are all acceptable answers.	1
	b.		2 Award 2 marks if circuit wires are drawn clearly connecting the components together. Deduct 1 mark if only 1 side of the circuit is connected.
	c.	Battery/Cell	1
11		Image 1: Battery or Cell Image 2: Solar powered photo-Voltaic panels Image 3: Power Station Plant Image 4: Electronic circuit	2 Award ½ mark for each correct match.
12	a.	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Answer should be ticked as above	1 Award ½ mark for each correct tick.
	b.	fridge	1
13	a.	Soldering Iron <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	½
	b.	Accept answers mentioning any of the following or similar relevant answers: safety goggles, ventilation, avoiding touching hot tip.	½
14		Input: Switch; Output : Bulb	1 Award ½ mark for each correct answer.