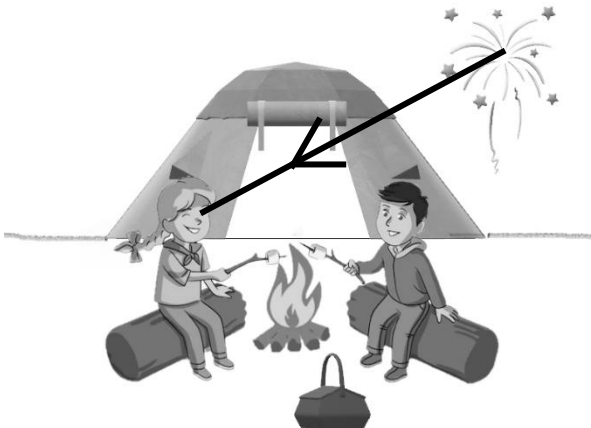


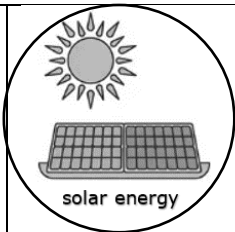
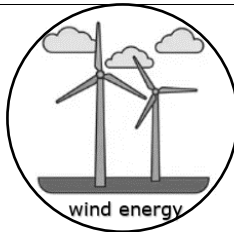
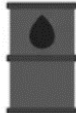
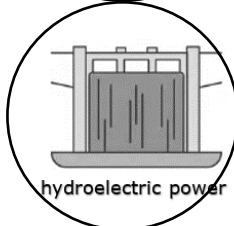
YEAR 8 **INTEGRATED SCIENCE** **MARKING SCHEME**

Question			Answer	Mark
1.	a.	i.	carbohydrates energy	1 1
		ii.	protein growth and repair	1 1
		iii.	vitamin or mineral health	1 1
	b.		May cause tooth decay. Excess sugar would be converted to fat. Could lead to obesity. (accept any two correct answers)	2
	c.	i.	No	1
		ii.	Not all food substances are present in a balanced way.	1
Total: 10 marks				
2.	a.	i.	Pulse rate increases.	1
		ii.	The body needs more energy when doing exercise.	1
	b.	i.	$900 - 400 = 500\text{cm}^3$ (decrease 1 mark if unit is not written)	1 1
		ii.	Her muscles need more energy to work. Oxygen is needed to carry respiration and generate more energy. (accept any correct answer)	1
	c.	i.	Her temperature increases.	1
		ii.	As the muscles work, they generate more heat energy.	1
	d.		Ingredient: nicotine Effect on health: makes the body addicted to smoking Ingredient: tar Effect on health: it blocks the alveoli (accept any combination of correct answers)	1 1

	e.	i.	Virus	1
		ii.	Vaccines trigger your immune response to recognize and fight disease-causing organisms. (accept any correct answer)	1
		iii.	The skin or the mucus in the nose or eye tear (accept any correct answer)	1
Total: 12 marks				
3.	a.		Decibel	1
	b.		Cars Factories (accept any two correct answers)	2
	c.		Sound proofing Sound barrier Planting of trees (accept any two correct answers)	2
	d.		ear drum or cochlea or nerve endings (accept any one of the above)	1
Total: 6 marks				
4.	a.		Fireworks Camp fire	1 1
	b.		 <p>Do not give any mark if the line is not a straight line or arrow is not visible.</p>	1

	c.		 <p>Do not give any mark if the lines are not straight and linked or if arrows are not visible. Accept also if students opt to use the fireworks as the source of light.</p>	1
	d.	i.	Yes	1
		ii.	Light travels faster than sound	1
Total: 6 marks				
5.	a.		Insoluble	1
	b.		Sugar, salt, coffee etc. (accept any two correct answers)	2
	c.		Sand, plastic, clay, etc. (accept any two correct answers)	2
	d.		Solvent	1
Total: 6 marks				
6.	a.		element	1
	b.		1. It conducts electricity and heat. 5. It is shiny.	1 1
	c.	i.	Iron + <u>oxygen</u> $\longrightarrow$ <u>Iron oxide</u> (do not accept rust as a correct answer)	2
		ii.	Chemical	1
		iii.	transparent	1
Total: 7 marks				

7.	a.		Chemical change	1
	b.	i.	Melting of wax	1
		ii.	Burning of wax	1
				Total: 3 marks
8.	a.		From the solution	1
	b.		Evaporation	1
	c.		84.36 – 71.26 = 13.10g (give one mark if the answer is incorrect but the students showed the correct working.) (give full mark if only the answer is shown)	1 1
				Total: 4 marks
9.	a.		So that they do not contaminate the crime scene. (accept any correct answer)	1
	b.	i.	using science to help solve a crime identifying and comparing evidence from a crime scene	1 1
		ii.	Footprints next to the window which have an inward direction.	1
	c.		C	1
	d.	i.	Chromatography	1
		ii.	Put a dot from the pens you would like to test on some filter paper. Drop some water on the dots and allow time for the colour to spread out. Drop some water on the message and allow the colour to spread. Compare the pattern of the colour spread to identify which pen matches the message.	1 1 1
	e.		Microscope	1
				Total: 10 marks

10.	a.		<div> solar energy</div> <div> gas</div> <div> wind energy</div> <div> oil</div> <div> coal</div> <div> hydroelectric power</div>	3								
	b.		<table><tr><th>Renewable energy</th><th>Non-renewable energy</th></tr><tr><td>Can be used over and over again.</td><td>Gone forever when used.</td></tr><tr><td>More environmentally friendly.</td><td>Create a lot of pollution.</td></tr><tr><td>Replaced over a short time.</td><td>Also called fossil fuels.</td></tr></table>	Renewable energy	Non-renewable energy	Can be used over and over again.	Gone forever when used.	More environmentally friendly.	Create a lot of pollution.	Replaced over a short time.	Also called fossil fuels.	6
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More environmentally friendly.	Create a lot of pollution.											
Replaced over a short time.	Also called fossil fuels.											
Total: 9 marks												
11.	a.		valley	1								
	b.	i.	A nature reserve is a protected area of importance for flora, fauna, or features of geological or other special interest. (accept any correct answer)	1								
		ii.	They are important for the conservation of particular species and conservation of ecosystems to protect them from human impact. (accept any correct answer)	1								
	c.	i.	Non-Governmental Organisation	1								
		ii.	Protection of particular areas Generate awareness – education Collect data Rehabilitation of natural areas Reporting abuse Manage and monitor nature reserves (accept any correct answer)	1								

		iii.	Birdlife, Nature Trust (accept any correct answer)	1
	d.	i.	Indigenous: A living thing which is naturally occurring in a particular area, native. Endemic: A living thing which occurs only in a restricted area and nowhere else. (accept any correct answer)	1 1
		ii.	The hornet population has increased over these past years because of an increase in buildings where they can nest.	1
		iii.	Pollution and release of greenhouse gases is leading to global warming. (accept any correct answer)	1
Total: 10 marks				
12.	a.		candle	1
	b.		This shows that the gas is acidic.	1
	c.		The lime water turns milky white.	1
	d.	i.	Use bicycles instead of cars.	1
		ii.	Switch off the lights when leaving a room.	1
		iii.	Use natural lights from windows instead of switching on the lights. (for i., ii. and iii. accept any other correct answer)	1
Total: 6 marks				
13.	a.		It is a natural satellite orbiting Earth.	1
	b.		The following statements only should be ticked: ii. iv.	2
	c.	i.	The Moon has less gravity than Earth.	1
		ii.	Mass is the measure of the particles an object has. Weight is the particles and the force of gravity acting on it.	1 1

	d.		<table><tr><th>Number</th><th>Statement</th></tr><tr><td>24</td><td>The hours for Earth to spin ones on itself.</td></tr><tr><td>8</td><td>Planets in our solar system.</td></tr><tr><td>1</td><td>The number of moons orbiting Earth.</td></tr><tr><td>28</td><td>Days the Moon takes to orbit Earth.</td></tr><tr><td>365</td><td>Days for Earth to complete one orbit around the Sun.</td></tr></table>	Number	Statement	24	The hours for Earth to spin ones on itself.	8	Planets in our solar system.	1	The number of moons orbiting Earth.	28	Days the Moon takes to orbit Earth.	365	Days for Earth to complete one orbit around the Sun.	5
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Total: 11 marks																

YEAR 8	INTEGRATED SCIENCE (Fieldwork Question)	MARKING SCHEME
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Question			Answer	Mark
1.	a.		In the shade, plants cannot carry out photosynthesis. (accept any correct answer)	1
	b.		Butterflies do not stay in one place but move.	1
	c.	i.	There are less flowers the further away you move from the water course.	1
		ii.	Plants need water to grow.	1
	d.	i.	Alien Species are animals and plants that are introduced accidentally or deliberately into a natural environment where they are not normally found, with serious negative consequences for their new environment. (accept any correct answer)	1
		ii.	Humans bought the crayfish as a pet and later released it in the Chadwick lakes.	1
		iii.	It is hunting down the painted frog population.	1
		iv.	It would kill off the painted frog and other native creatures living in Chadwick lakes.	1
	e.		Do not leave any trash behind. Do not disturbing rubble walls. Do not take and living things like tadpoles. (accept any two correct answers)	2
Total: 10 marks				