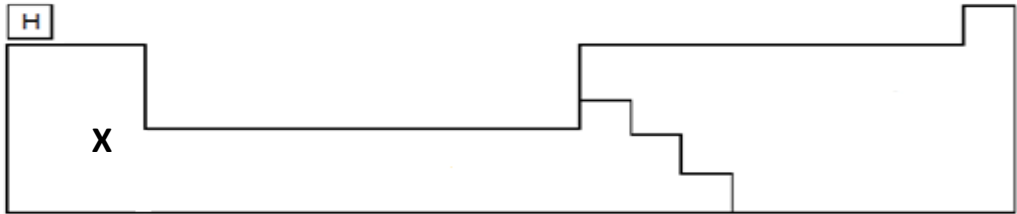


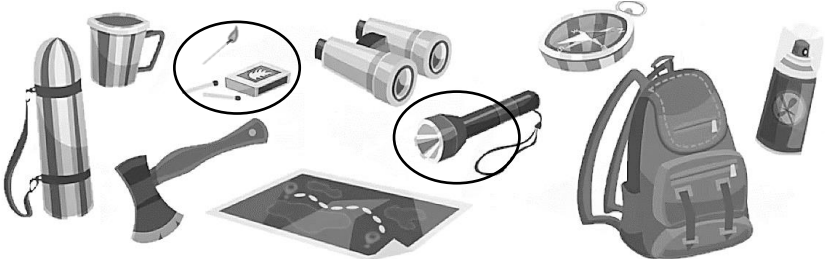
Annual Examinations for Middle Schools 2024

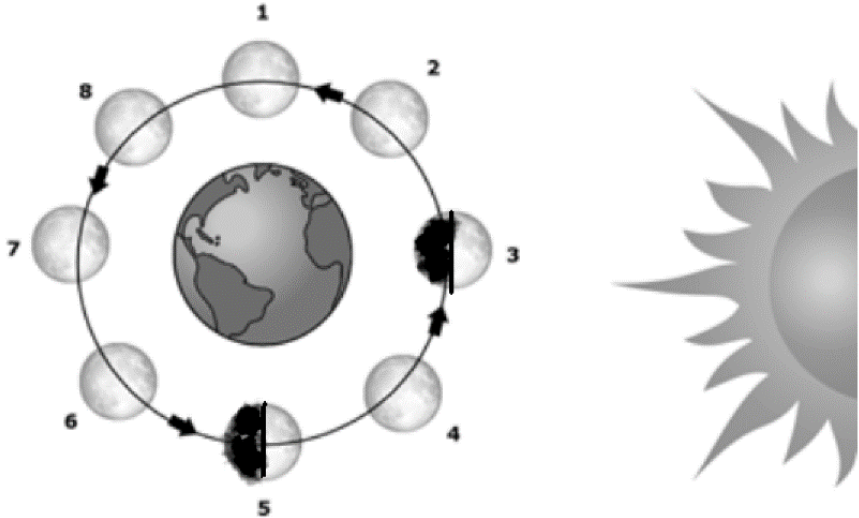
YEAR 8	INTEGRATED SCIENCE	MARKING SCHEME
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QUESTION			ANSWER			MARK
1.				TRUE	FALSE	
	a.		The chocolate bar is rich in carbohydrates.	☒	☐	1
	b.		Meat contains lots of carbohydrates.	☐	☒	1
	c.		Meat is a good source of fibre.	☐	☒	1
	d.		Fats contain lots of energy.	☒	☐	1
	e.		Proteins are needed for energy.	☐	☒	1
	f.		Carbohydrates are a good source of energy.	☒	☐	1
	g.		Fibre is important for a healthy nervous system.	☐	☒	1
	h.		Protein is used by the body for growth and repair of cells.	☒	☐	1
			(Total: 8 marks)			
2.	a.	i.	75			1
		ii.	140			1
		iii.	Her body needs more energy when doing heavy exercise. Therefore the pulse rate increases.			1
		iv.	Yes			1
	b.	i.	2300 x 3 = 6900 kJ			1
		ii.	Playing football needs more energy than playing bowling.			1
	c.		Smoking effects her lungs and thus her breathing. Smoking damages her blood vessels.			1 1
	d.		She avoids crowded places. She avoids meeting people who are sick. (Accept any other correct answer)			1 1
			(Total: 10 marks)			

3.	a.	i.	It is shiny.	1
		ii.	It conducts electricity.	1
			(Accept also – It conducts heat.)	
	b.	i.	baked a huge cake	1
		ii.	burning colourful fireworks	1
	c.		A new product is produced. (Accept also – Reaction cannot be reversed.)	1
	d.		 (Accept anywhere as long as the 'X' is on the LHS of the table.)	1
	e.		Al O Cu C Fe N Mg (Accept any of Al, Cu, Fe or Mg)	1
			Al: Aluminium Cu: Copper Fe: Iron Mg: Magnesium (Accept correct answer as long as the name of the metal corresponds to the circled symbol.	1
			(Total: 8 marks)	
4.	a.	i.	Josefa	1
		ii.	Fossil fuels release harmful gases. (Accept any other correct answer)	1
	b.	i.	petrol, diesel, oil, kerosine, coal, natural gas (Accept any two or any other correct answer.)	2
		ii.	Greenhouse gases are the gases in the atmosphere that raise the surface temperature of Earth by trapping heat. Example: Carbon dioxide, methane, nitrous oxide (Accept any)	1 1
	c.		Warmer sea Rising sea levels Melting glaciers More frequent drought or storms (Accept any two or other correct answers)	1 1
	d.		Accept any two examples. These may include: - using renewable forms of energy - reduce waste material - buy local products rather than foreign Accept any other correct answers.	1 1
			(Total: 10 marks)	

5.	a.	i.	A chromatography	1
		ii.	B evaporation	1
		iii.	C filtration	1
		iv.	D distillation	1
	b.	i.	C	1
		ii.	B	1
		iii.	A	1
		iv.	D	1
		v.	C	1
(Total: 9 marks)				
6.	a.		Red, Yellow and Green	1
	b.		Cherry sweet	1
	c.		Strawberry sweet	1
(Total: 3 marks)				
7.	a.	i.	The plant lives on the coast. The plant lives on the land by the sea. The plant lives on rocky seashore. (Accept any or any other correct answer.)	1
		ii.	These plants can withstand salty conditions. These plants can grow in areas with little or no soil at all. They are usually small bushes due to high wind conditions. (Accept any or any other correct answer.)	1
	b.		This plant is found in one particular area only.	1
	c.	i.	A nature reserve is a protected area in which wildlife can grow and live naturally. A nature reserve is a protected area in which wildlife is given priority. The human activity in this area is very much controlled. (Accept any or any other correct answer)	1
		ii.	Għadira Nature Reserve ; Simar Nature Reserve; Wied Għollieqa Nature Reserve; Xrobb l-Għaġin Nature Park; Il-Buskett; Il-Magħluq M'Scala; Ċirkewwa Marine Park; Majjistral Park; Natura 2000 sites; Id-Dwejra (Gozo); Fungus Rock (Gozo); Filfla; Il-Ponta tal-Qawra. (Accept any or any other correct answer)	1

		iii.	Trampling on wild plants, fires, introduction of alien species. (Accept any or any other correct answer)	1
	d.	i.	Non-govermental organisation.	1
		ii.	BirdLife Malta, Din l-Art Ħelwa, Flimkien Għal Ambjent Aħjar, Friends of the Earth Malta, Nature Trust (Malta), Ramblers Association of Malta, Sharklab (Accept any two or any other correct answers)	2
		iii.	NGOs create awareness to protect the environment. They promote legislation which protects the environment. Planting of trees. Taking care of nature reserves. (Accept any or any other correct answer)	1
			(Total: 10 marks)	
8.	a.			2
	b.	i.	sources	1
		ii.	non-luminous reflect	2
		iii.	smooth, shiny, light	3
	c.	i.	Student: Student D Reason: Light can be reflected on the mirror and reach his eye. Or Student: Student B Reason: The pipe is straight and light travels in a straight line. Accept student chosen only if the reason is also correct.	1 1
		ii.	Student: Student A or C Reason: Light travels in a straight line so it cannot bend along the pipe. It will not reach the eye.	1 1
	d.	i.	Waves	1
		ii.	Echo	1
		iii.	Solid	1
			(Total: 15 marks)	

9.	a.	i.	A or B	1
		ii.	D	1
		iii.	B and D	2
		iv.	C	1
	b.	i.	 Give one mark if the correct side of the moon is shaded and another mark if the line between day and light is drawn perpendicular.	2
		ii.	7	1
		iii.	5	1
		iv.	The mass describes the number of particles an object has. This does not change on the Moon. Weight is a force and is determined by the strength of the gravity. The moon has a weaker gravity and, therefore, on the Moon an object weighs less.	1
	d.	i.	Jupiter	1
		ii.	Venus	1
		iii.	Neptune	1
(Total: 13 marks)				
10.	a.	i.	Heat, oxygen, fuel	3
		ii.	• a set of fingerprints on the door ☒ • the name of the place ☐ • blood stains on the floor ☒ • the colour of the floor tiles ☐ • the size of the room ☐ • the type of missing diamonds ☒	3
	b.		Add some water to the salts and mix. The salt will dissolve while the diamonds will not.	1

	c.	i.	Four	1
		ii.	Incisor	1
		iii.	Canine To tear pieces of food Pre-molar/Molar To crush food Give marks only if the tooth matches the correct function.	4
		iv.	microscope	1
			(Total: 14 marks)	

FIELDWORK QUESTION				
(answered only by students who for some reason missed the fieldwork trip)				
1.	a.		A: coastal	1
			B: woodland	1
			C: salt marshes	1
			D: garigue	1
	b.	i.	Throw the quadrat a number of times. Count the number of flowers in each quadrat. Calculate the average number of flowers in each quadrat. Calculate the number of quadrats that would fit the field. Finally estimate the total number of flowers in the field.	2
		ii.	Butterflies move around and thus you cannot use the quadrat to count the number of butterflies.	1
	c.	i.	Rubble walls hold the soil in place.	1
		ii.	They provide place where small organisms may live. (Accept any other correct answer)	1
	d.		An alien species is a foreign species which was introduced in place by humans.	1
			(Total: 10 marks)	