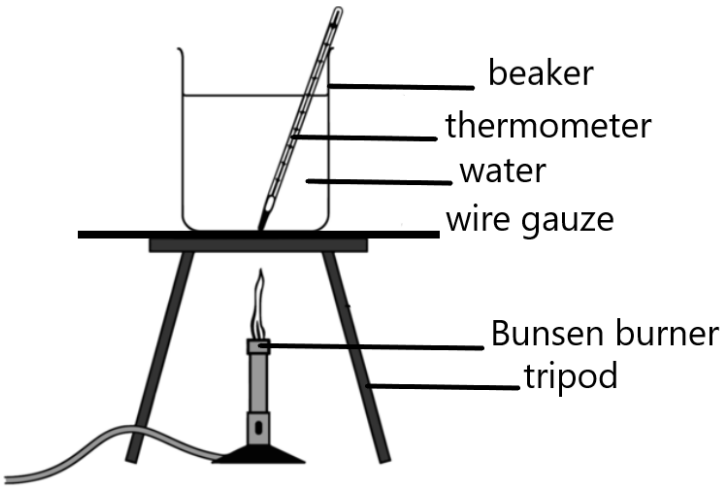
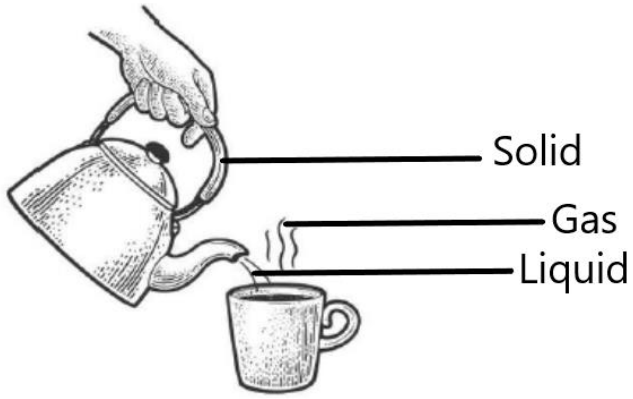
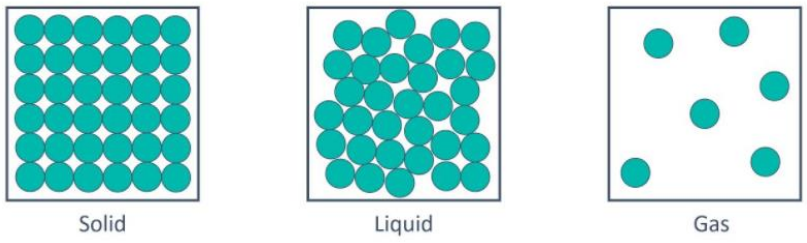
DEPARTMENT FOR CURRICULUM,
LIFELONG LEARNING AND EMPLOYABILITY
Directorate for Learning and Assessment Programmes
Educational Assessment Unit

Annual Examinations for Middle Schools 2022

YEAR 7 INTEGRATED SCIENCE MARKING SCHEME

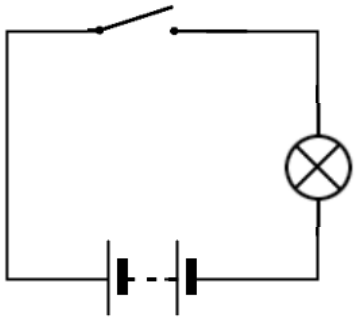
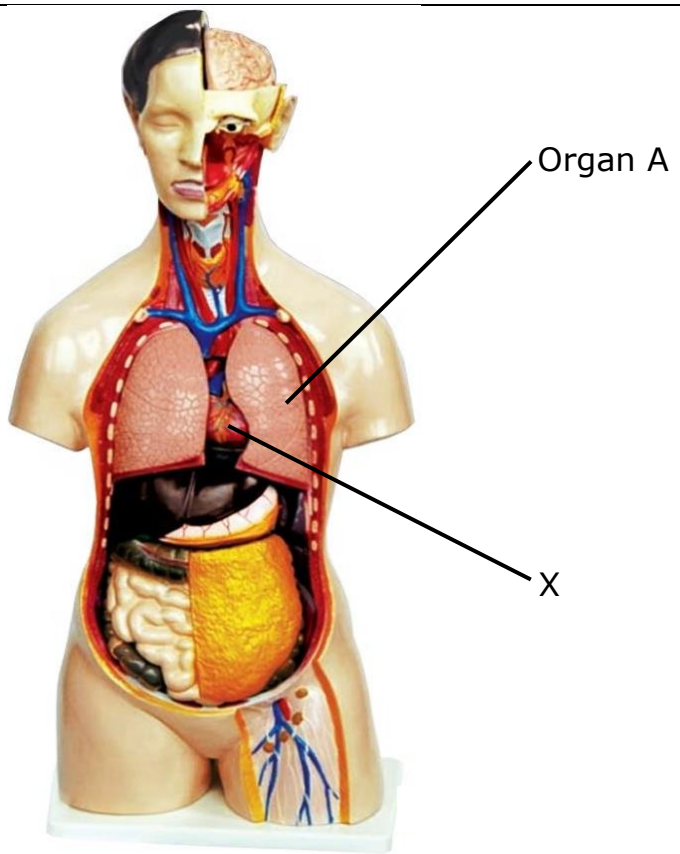
Question			***Answer***	***Mark***
1.	a.		heat, 100^0C, evaporates cool, condensation 0^0C, ice, freezing	1, 1, 1 1, 1 1, 1, 1
	b.	i. ii.	table, milk, air paper, oil, steam	1 1
				Total: 10 marks
2.	a.	1. 2. 3. 4. 5.	Bunsen burner Safety goggles (*accept: Safety glasses*) Beaker Wire gauze Measuring cylinder	1 1 1 1 1
	b.	1. 2. 3.	Thermometer Tripod Stopwatch *(the answers do not need to be in any specific order)*	1 1 1
	c.			1 (for all apparatus included) 1 (for drawing is a scientific diagram and in pencil) 1 (for labellings)

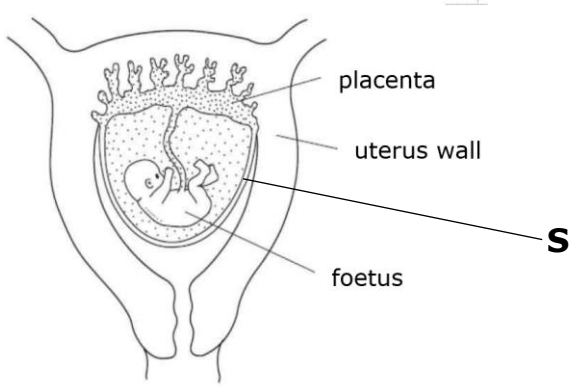
	d.	1. 2. 3.	Do not leave the Bunsen burner unattended when on. Remove any flammable material. Tie back your hair. *(Accept any other rule/s relevant to this particular experiment. Do not accept any other safety rules which are not applicable to this experiment.)*	1 1 1
				Total: 14 marks
3.	a.	i.	oxygen	1
		ii.	heat	1
	b.		Since water and oil do not mix, throwing water on the fire can cause burning grease to splash, which can make the fire spread and potentially harm bystanders.	1
				Total: 3 marks
4.	a.		 *(accept any correct labelling)*	1 1 1
	b			3
				Total: 6 marks
5.	a.		Student 1: David Student 2: Sarah *(names can be swapped between student 1 and student 2)*	1 1
	b.		Do not eat or drink anything in the lab.	1

	c.			1
	d.	i.	<table><tr><th rowspan="2">Name</th><th rowspan="2">pH value</th><th colspan="2">Results</th></tr><tr><th>Litmus red</th><th>Litmus blue</th></tr><tr><td>David</td><td>5</td><td>red</td><td>red</td></tr><tr><td>Sharon</td><td>8</td><td>blue</td><td>blue</td></tr><tr><td>Sarah</td><td>13</td><td>blue</td><td>blue</td></tr><tr><td>Ivan</td><td>2</td><td>red</td><td>red</td></tr></table>	4 *(one mark is given only if both answers for litmus red and blue are correct)*
		ii.	David Ivan	1 1
		iii.	Ivan	1
		iv.	Collect the hydrogen and burn it. Hydrogen burns with a pop sound.	1
		v	*(Accept any combination where an acid is mixed with an alkali)*	1
	e.	i.	alkali, acid, neutralised	1, 1, 1
		ii.	The bee sting is acidic. If you add vinegar to it, you would be adding more acid and cause a greater damage.	1
				Total: 17 marks
6.	a.	i.	Have hair Give birth to live young Suckle their young Warm blooded *(any two or equivalent)*	1 1
		ii.	Feed Respire Excrete Reproduce	1 1

			Grow Respond Move *(any two)*	
		iii.	gills scales *(any one)*	1
	b.	i.	photosynthesis	1
		ii.	Microscopic Plants --> Krill --> Fin Whales *(accept: plants instead of microscopic plants)* *(award 1 mark for presenting organisms in the correct order and 1 mark for arrows pointing in the right direction).*	1 1
		iii.	Krill Fin Whales *(any one)*	1
	c.		Endangered is defined as a living thing that risks becoming extinct.	1
				Total: 10 marks
7.	a.	i.	Cell B	1
		ii.	It has no chloroplasts. It does not have a large central vacuole. It is round in shape. It does not have a cell wall. *(accept: Outermost layer is the cell membrane not cell wall).* *(any two)*	1 1
		iii.	Is an organelle that controls the function of the cell and gives information on what type of cell is formed.	1
	b.	i.	200/10= 20	1 1
		ii.	Because as it grew, it changed its shape and structure to become able to perform a specific function.	1
		iii.	body system: Nervous system main organ: Brain	1 1

		iv.	Detects changes in the environment and makes the body respond accordingly. *(accept any equivalent answer)*	1
				Total: 10 marks
8.	a.	i.		1
		ii.	Provide anchorage to the plant Absorb minerals *(any one)*	1
	b.		The window provides a source of light, which is required by the plant to perform potosynthesis. *(accept any equivalent answer)*	1 1
	c.	i.	Attractive flowers draw insects towards them, which increases the chance of pollination taking place.	1 1
		ii.	The stamen produces and releases pollen, while the stigma allows the pollen to stick to it before it moves downwards to meet the ovule.	1 1
				Total: 8 marks
9.	a.		Spilling water can cause electric shock since water conducts electricity.	1
	b.	i.	The batteries provide a source of chemical energy that converts it to electrical energy.	1
		ii.	A switch controls the circuit by cutting or reconnecting electrical power.	1

		iii.	 *Also accept* *for bulb.*	1 1
	c.		The copper is an electrical conductor suitable to allow the flow of electricity, while the rubber is an insulator that protects users from electric shock.	1 1
				Total: 7 marks
10.	a.	i.	lungs	1
		ii.	If the tube gets blocked, organ A will not be able to draw in air and it wall not be able to pass oxygen to the body. *(accept: If the tube gets blocked organ A will not be able to perform breathing.)*	1
	b.	i.	 	1

		ii.	Circulatory System	1
	c.		Mouth Stomach Small intestine Large intestine *(accept: intestines)* *(any two)*	1 1
				Total: 6 marks
11.	a.	i.	Puberty is the phase when a child's body begins to develop and change into that of an adult.	1
		ii.	development of breasts first mentrual period widening of the hips hair growth *(accept height spurt)*	1 1
	b.		should get an appropriate amount of sleep (rest) should stop smoking	1 1
	c.	i.	umbilical cord	1
		ii.	allows passage of nutrients from mother to foetus allows passage of oxygen from mother to foetus allows passage of carbon dioxide from foetus to mother allows passage of waste substances from foetus to mother (accept:*protection of foetus from mother's stronger blood pressure* *(any two)*	1 1
		iii.		1
				Total: 9 marks

The annual paper is out of 100. Kindly input this mark into the MySchools portal as instructed. This is to represent 70% of the final global mark obtained by the student.

30% of the final global mark are related to continuous assessment. The continuous assessment should include the following:

- 15% Practical work
- 10% Project-based Learning
- 5% School based assessment

Kindly input this assessment mark (out of 100) into the MySchools portal. The portal will automatically add this mark to the mark obtained by the students during the annual exam.

Kindly follow assessment document disseminated at the beginning of 2021-22 scholastic year
https://curriculum.gov.mt/en/guidelines/Documents/Middle_and_Secondary_Guidelines/INTEGRATED_SCIENCE_yr7_8_guidelines_2021_2022.pdf
re any assessment issues due to COVID-19 protocols.