TOM NEWBY SCHOOL
GRADE 7 NS 2022
TERM 4 FORMAL ASSESSMENT

MEMORANDUM

QUESTIONS	ANSWERS	MARK	LEVEL
SECTION A		**[15]**	
QUESTION 1		**[8]**	
1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8	Renewable and non-renewable✓ Coal✓ Used-up✓ Environmental ✓ Expensive✓ Wind ✓ Water ✓	8	1
QUESTION 2		**[7]**	
2.1	E✓	1	2
2.2	C✓	1	2
2.3	A✓	1	2
2.4	F✓	1	2
2.5	D✓	1	2
2.6	G✓	1	2
2.7	B✓	1	2
SECTION B		**[45]**	
QUESTION 3		**[17]**	
3.1	Radiation✓	1	2
3.2	Convection ✓	1	2
3.3	Conduction✓	1	2
3.4	The paragraph below is just an example of a paragraph. The learner must use the words above. The Sun's energy✓ is captured through a process called photosynthesis. ✓ Wheat plants use the energy to make carbohydrates which they store in their wheat kernels. ✓The wheat kernels are ground to make flour for bread. ✓ The Sun's energy is therefore captured in the carbohydrates found in bread, so when the✓ boy eats the bread, the energy from the carbohydrates is released. ✓	6	3
3.5.1	1492kj = 1492000J✓✓	2	5
3.5.2	7,5g for one – 22.5g for three✓✓	2	5
3.5.3	1 biscuit is 112kj – 3 biscuits are 336kj✓✓	2	5
3.5.4	336kj x 2 = 672kj✓✓	2	5

QUESTION 4		**[13]**	
4.1	Energy cannot be created. ✓ Energy cannot be destroyed. ✓ Energy can be transferred from one system to another. ✓	3	4
4.2	Wind -The energy from moving air particles is used to turn large turbines. ✓✓ Hydro-Water stored in a dam can run through a channel where it turns a turbine✓✓ Solar- Solar panels are used to absorb the radiant energy from the Sun and to transform the energy from the Sun into stored potential energy. ✓✓ Biofuels- Crops like maize and soya beans are fermented so that the sugars in the crops turn into a substance called ethanol. ✓✓	8	4
4.3	They are naturally restored or replaced. ✓✓	2	3
QUESTION 5		**[10]**	
5.1	Input – store of chemical potential energy. ✓ Process – Transferred as electrical energy. ✓ Output – light energy. ✓	3	4
5.2	a) Conduction: transfer of heat✓ through an object or form one object to another. ✓ b) Convection: Transfer of heat f✓rom one place to another by the movement of liquid or gas particles. ✓ c) Radiation: a type or method of heat transfer that carries heat energy across empty space. ✓	6	4
5.3	The particles are too tightly packed. ✓	1	5
QUESTION 6		**[5]**	
6.1	Mechanical ✓	1	3
6.2	Electrical✓	1	3
6.3	Chemical potential energy✓	1	3
6.4	Thermal✓	1	3
6.5	Heat energy✓	1	3
SECTION C		**[20]**	
QUESTION 7			
7.1	More ✓	1	2
7.2	Closer together✓	1	2
7.3	Pull ✓	1	2
7.4	Aligned with each other✓	1	2
7.5	Twelve ✓	1	2
7.6	Periods of dry and wet conditions. ✓	1	2

7.7	Seasons ✓	1	2
QUESTION 8		**[13]**	
8.1	A-Third Quarter✓ B-Full Moon✓ C-First Quarter✓ D-New Moon✓	**4**	**3**
8.2	The alignment of the Sun, the Moon and Earth leaves the side of the Moon that faces Earth in darkness.✓✓	**2**	**4**
8.3	The curve of the Earth means that sunlight is spread over a wider area (oblique rays) the further you move from the Equator. Sunlight hits a smaller surface area at the Equator (direct rays). ✓✓	**2**	**3**
8.4	a) Winter✓ b) Summer✓	**2**	**4**
8.5.1	High tides and low tides are caused by the moon. The moon's gravitational pull generates something called the tidal force. The tidal force causes Earth and its water to bulge out on the side closest to the moon and the side farthest from the moon. ✓✓	**2**	**3**
8.5.2	Spring tides✓	**1**	
TOTAL		**[80]**	