TOM NEWBY SCHOOL
GRADE 7 NS
MEMO

QUESTIONS	ANSWERS	MARK	LEVEL
SECTION A		**[10]**	
QUESTION 1			
1.1	D	1	1
1.2	C	1	1
1.3	B	1	1
1.4	C	1	1
1.5	B	1	1
QUESTION 2			
2.1	C	1	2
2.2	A	1	2
2.3	B	1	2
2.4	D	1	2
2.5	E	1	2
SECTION B		**[50]**	
QUESTION 3		**[18]**	
3.1	Energy cannot be created. √ Energy cannot be destroyed. √ Energy can be transferred from one system to another. √	3	3
3.2	Gravitational potential energy – Water falling Elastic potential energy – stored in a stretched or compressed object, rubber band. Chemical potential energy – Food or drinks we take in.	6	4
3.3	It is so that gravity can pull the water out √ without having to use pumps √, makes the water pressure stronger. √	3	3
3.4	Water in reservoirs that are positioned lower than the houses, or water from boreholes and wells has to be pumped up to the houses. √ This is because the water below the level of the houses does not have enough potential energy to reach the houses. √	2	2
3.5	It is gravity√ that pulls the water to the ground√	2	4
3.6	Learners own answer. Reservoirs that are built higher up etc. √	2	3
QUESTION 4		**[12]**	
4.1	8500√	1	1
4.2			
4.2.1	1492kj = 1492000J	2	3

4.2.2	15/2=7,5g	2	4
4.2.3	224/2 = 112kj	2	5
4.2.4	112x5 = 560kj	2	5
4.2.5	13-Year-old boy who is not active: His recommended daily allowance (RDA) would be 8500kJ. A serving of 2 biscuits contains 224 kJ The percentage of RDA = 224/8500 x 100 = 2,6 %	3	5
QUESTION 5		**[20]**	
5.1	Clothes dryer, Vacuum, Kettle	3	3
5.2	Clothes dryer – 4000 watts Vacuum – 2000 watts Kettle – 2000 watts	3	2
5.3	Rather hang the clothes outside in the sun. When using a kettle boil more water at a time or use gas instead of electricity.	2	3
5.4	Because there are lots of energy that is going to waste, such as heat, light or sound energy.	2	4
5.5	Input – once the boy starts swinging, he changes PE to KE. Process – When the boy reaches a specific height the KE changes into PGE (potential gravitational energy), which immediately changes back to KE. Output – the boy is swinging	3	5
5.6	a) Conduction: transfer of heat√ through an object or form one object to another.√ b) Convection: Transfer of heat√ from 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
5.7	Light colour. √ These colours reflect heat thereby keeping the house cool. √	1	3
SECTION C		**[20]**	
QUESTION 6			
6.1	-How much mass the two objects have. -How far apart the centres of the objects are.	2	4
6.2	By the pull of the Sun's gravity.	1	4
6.3	By the pull of the Earth's gravity.	1	4
6.4	It is because of the tilting of the axis line√ and movement of the Earth. √	2	3

<table>
<tr><td>6.5</td><td>
<table>
<tr><th></th><th>Tilt of Earth's axis</th><th>Sun's rays shine obliquely/directly</th><th>Season</th></tr>
<tr><td>Southern Hemisphere</td><td>Towards the Sun</td><td>Direct rays</td><td>Summer</td></tr>
<tr><td>Northern Hemisphere</td><td>Away from the Sun</td><td>Obliquely</td><td>Winter</td></tr>
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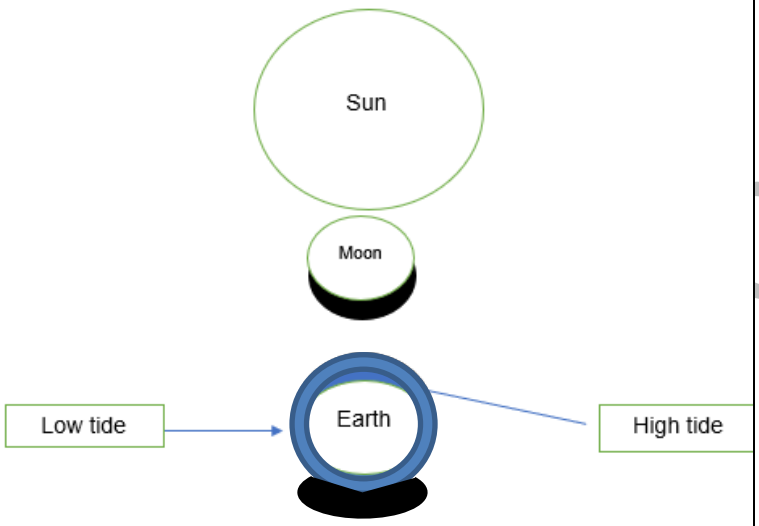
</td><td>5</td><td>4</td></tr>
<tr><td>6.6 – 6.8</td><td> 
</td><td>7</td><td>5</td></tr>
<tr><td>6.9</td><td>Spring tide√</td><td>2</td><td>3</td></tr>
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<tr><td>TOTAL</td><td></td><td>[80]</td><td></td></tr>
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