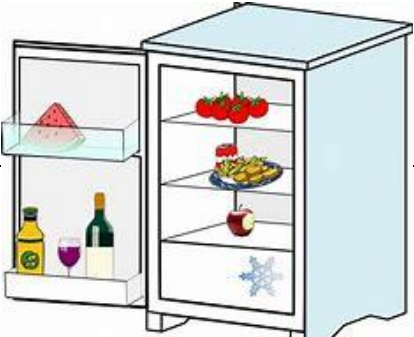




**TOM NEWBY SCHOOL
TECHNOLOGY
JUNE 2021 MEMORANDUM**

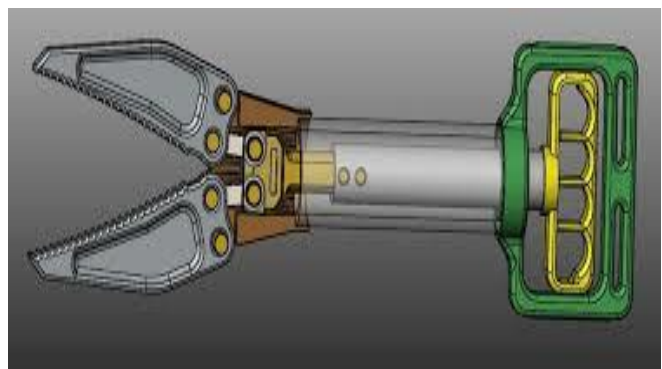


QUESTION	ANSWERS	MARKS	LEVEL
QUESTION 1	1.1 C ✓ 1.2 B ✓ 1.3 C ✓ 1.4 A ✓ 1.5 B ✓ 1.6 C ✓	6	1
QUESTION 2	2.1 D ✓ 2.2 E ✓ 2.3 A ✓ 2.4 B ✓ 2.5 C ✓	5	1
QUESTION 3	3.1 A. Bicycle Frame and man-made ✓ ^{1/2} B. Balloons Shell and man-made ✓ ^{1/2} C. Windmill Frame and man-made ✓ ^{1/2} D. Brick Solid and man-made ✓ ^{1/2} 3.2 A structure is something that is built, made or put together in a particular way. It can be a strong material, it can be stable and strong and can support loads. ✓ ✓ 3.3 A see-saw is an example of a second class lever ✓ and a wheelbarrow is an example of a first class lever. ✓	10	2
QUESTION 4	Design process: 4.1 The Rescue workers in Benoni asked me to design and make a model of a Jaws-of-life rescue tool, to be used in Benoni, to rescue passengers and drivers from car accidents, when they are trapped inside the vehicle. ✓ ✓	15	3

	<p>4.2. 1 The model should be able to cut or prise open crumpled metal. ✓</p> <p>4.2.2 It must work with levers .or with a hydraulic or pneumatic system ✓</p> <p>4.2.3 It must be attached to a flat piece of card as a base. ✓</p> <p>4.2.4 It must be powered by a hydraulic system or use syringes to work. ✓</p> <p>4.3.1 The cardboard might not be strong enough. ✓</p> <p>4.3.2 The syringes might leak water through the tube. ✓</p> <p>4.3.3The jaws might not open or the cutters might not work properly. (Accept any reasonable answer) ✓</p> <p>4.4 Materials:</p> <p>4.4.1 Cardboard ✓</p> <p>4.4.2 Foil ✓</p> <p>4.4.3 Braai tongs ✓</p> <p>Any relevant materials.</p> <p>Tools:</p> <p>4.4.4 Hammer or nails ✓</p> <p>4.4.5 Glue gun or split pins ✓</p> <p>4.4.6 Tubing and or syringes ✓</p> <p>Any relevant tools.</p>		
	<p>4.5 Sketch of a model of a Jaws-of-life. Check image at the end of the memo. ✓Check the rubric</p>	7	3
<p>QUESTION 5</p>	<p>Drawing of a fridge using outlines, hidden or feint lines and 3 D oblique. See image below. ✓Check the rubric</p> 	5	2

QUESTION 6	<p>6.1 Alexander Graham Bell in 1876 ✓ ✓</p> <p>6.2 The Motorola Company designed the prototype called the Dyna-TAC ✓ ✓</p> <p>6.3.1 Through a transmitter from the lab and a receiver in the bedroom. ✓</p> <p>6.3.2 Through sound waves that turned into electric current. ✓</p> <p>6.4</p> <p>a) You can't take them with you or carry them around with you. ✓</p> <p>b) They are expensive as you have to pay an amount every month to rent the line. ✓</p> <p>c) They can be struck by lightning or the line could be faulty. ✓</p> <p>Any reasonable answer.</p> <p>6.5</p> <p>a) We can take pictures with it. ✓</p> <p>b) We can carry it around with us. ✓</p> <p>c) We can send whatsapps on it. ✓</p> <p>Any reasonable answer. ✓</p> <p>6.6 MTN, Vodacom, Cell C, Telkom ✓</p>	12	3

Image of Jaws -of- Life (Learners will draw their own version)



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