



**TOM NEWBY SCHOOL**  
**GRADE 7 NS JUNE TEST 2022**

<b>Subject</b>	<b>Natural Science</b>	<b>Examiner</b>	<b>Miss van Coppenhagen</b>
<b>Date</b>	<b>June 2022</b>	<b>Total marks</b>	<b>60</b>
<b>Grade</b>	<b>7</b>	<b>Duration</b>	<b>1 ½ Hours</b>
		<b>Moderator</b>	<b>Mrs Fourie</b>
<b>Special instructions/ Equipment</b>	<ol style="list-style-type: none"> <li>1. Answer all the questions on the answer sheet provided.</li> <li>2. Read and answer ALL questions thoroughly.</li> <li>3. Write neatly and legibly in blue pen.</li> <li>4. Use a pencil for any drawings.</li> <li>5. Good luck! Think before you INK!</li> </ol>		
<p>This assessment has been compiled using notes and information contained in the Tom Newby School resource material. The marking memorandum has been compiled accordingly. While alternative responses will be given due acknowledgement, the official memorandum will be considered a priority document to ensure uniformity of marking.</p>			

<b>Name:</b>	<b>Surname:</b>	<b>Class:</b>
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**SECTION A – LIFE AND LIVING AND SEXUAL REPRODUCTION**

**[25]**

**QUESTION 1**

**[10]**

Provide the name of each of the following:

- 2.1 The organ that releases the egg cells: \_\_\_\_\_ (1)
- 2.2 The tube that carries the egg to the uterus: \_\_\_\_\_ (1)
- 2.3 The organ that produces sperm cells: \_\_\_\_\_ (1)
- 2.4 The tube that carries sperm cells and urine out of the body: \_\_\_\_\_ (1)
- 2.5 A gland that secretes fluid to provide the sperm with energy: \_\_\_\_\_ (1)
- 2.6 The part that contains and protects the testes: \_\_\_\_\_ (1)
- 2.7 The opening to the uterus, commonly called “the neck of the womb”:  
\_\_\_\_\_ (1)
- 2.8 The part that fills with blood and becomes swollen and erect during sexual intercourse: \_\_\_\_\_ (1)
- 2.9 The part that stores the sperm cells: \_\_\_\_\_ (1)
- 2.10 The part where the foetus will develop: \_\_\_\_\_ (1)

**QUESTION 2**

**[10]**

Define the following terms:

1.1 Puberty

(2)

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1.2 Menstruation

(2)

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1.3 Hormones

(2)

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1.4 Epididymis

(2)

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1.5 Ova

(2)

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**QUESTION 3**

**[5]**

3.1 What are the fertilisation stages in humans from sexual intercourse to pregnancy? (4)

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3.2 Explain why a pregnant woman should eat a healthy diet and not take drugs or drink alcohol.

(1)

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**SECTION B – MATTER AND MATERIALS****[15]****QUESTION 4**Identify if the following statements are **TRUE** or **FALSE**.**[5]**

- 4.1 Only acids are corrosive, bases are not. \_\_\_\_\_ (1)
- 4.2 Plastics are biodegradable. \_\_\_\_\_ (1)
- 4.3 Silicon is a non-metal. \_\_\_\_\_ (1)
- 4.4 All elements on the Periodic Table are represented by both symbol and an atomic number. \_\_\_\_\_ (1)
- 4.5 Sulphur dioxide released by burning fossil fuels can lead to the formation of acid rain. \_\_\_\_\_ (1)

**QUESTION 5****[5]**

Answer the following questions on mixtures/methods of physical separation:

- 5.1 Explain what the term 'boiling point' means. (1)
- 
- 5.2 What is the change of state that takes place when water boils? (1)
- 
- 5.3 Ethanol has a lower boiling point than water. Name and describe which method of separation would you use to separate a mixture of ethanol and water? (3)

**QUESTION 6****[5]**

Answer the following questions on taste of substances.

- 6.1 What does the number seven on the pH scale indicate? (1)
-

6.2 Mention two properties of an acid and two properties of a base. (4)

A	Properties of an acid.	B	Properties of a base.
1.		1.	
2.		2.	

## SECTION C – ELEMENTS ON THE PERIODIC TABLE

[20]

### QUESTION 7

Look carefully at the Periodic table to answer the questions.

(Mendeleev's) Periodic Table of Chemical Elements via TikZ

1 IA																		18 VIIIA																	
1	1.0079																	2	4.0026																
1	H																	2	He																
	Hydrogen																		Helium																
3	6.941	4	9.0122													5	10.811	6	12.011	7	14.007	8	15.999	9	18.998	10	20.180								
2	Li	2	Be													13	B	14	C	15	N	16	O	17	F	18	Ne								
	Lithium		Beryllium														Barium		Carbon		Nitrogen		Oxygen		Fluorine		Neon								
11	22.990	12	24.305													13	26.982	14	28.086	15	30.974	16	32.065	17	35.453	18	39.948								
3	Na	12	Mg													13	Al	14	Si	15	P	16	S	17	Cl	18	Ar								
	Sodium		Magnesium														Aluminum		Silicon		Phosphorus		Sulphur		Chlorine		Argon								
19	39.098	20	40.078	21	44.956	22	47.867	23	50.942	24	51.996	25	54.938	26	55.845	27	58.933	28	58.693	29	63.546	30	65.39	31	69.723	32	72.64	33	74.922	34	78.96	35	79.904	36	83.8
4	K	20	Ca	21	Sc	22	Ti	23	V	24	Cr	25	Mn	26	Fe	27	Co	28	Ni	29	Cu	30	Zn	31	Ga	32	Ge	33	As	34	Se	35	Br	36	Kr
	Potassium		Calcium		Scandium		Titanium		Vanadium		Chromium		Manganese		Iron		Cobalt		Nickel		Copper		Zinc		Gallium		Germanium		Arsenic		Selenium		Bromine		Krypton
37	85.468	38	87.62	39	88.906	40	91.224	41	92.906	42	95.94	43	96	44	101.07	45	102.90	46	106.42	47	107.87	48	112.41	49	114.82	50	118.71	51	121.76	52	127.6	53	126.9	54	131.29
5	Rb	38	Sr	39	Y	40	Zr	41	Nb	42	Mo	43	Tc	44	Ru	45	Rh	46	Pd	47	Ag	48	Cd	49	In	50	Sn	51	Sb	52	Te	53	I	54	Xe
	Rubidium		Strontium		Yttrium		Zirconium		Niobium		Molybdenum		Technetium		Ruthenium		Rhodium		Palladium		Silver		Cadmium		Indium		Tin		Antimony		Tellurium		Iodine		Xenon
55	132.91	56	137.33	57-71	175.45	72	183.84	73	186.21	74	188.91	75	192.22	76	195.08	77	197.04	78	200.59	79	200.59	80	200.59	81	204.38	82	207.2	83	208.98	84	209	85	210	86	222
6	Cs	56	Ba	57-71	La-Lu	72	Hf	73	Ta	74	W	75	Re	76	Os	77	Ir	78	Pt	79	Au	80	Hg	81	Tl	82	Pb	83	Bi	84	Po	85	At	86	Rn
	Cesium		Barium		Lanthanide		Hafnium		Tantalum		Tungsten		Rhenium		Osmium		Iridium		Platinum		Gold		Mercury		Thallium		Lead		Bismuth		Polonium		Astatine		Radon
87	223	88	226	89-103	232.04	104	261	105	262	106	263	107	264	108	265	109	266	110	267	111	268	112	269	113	270	114	271	115	272	116	273	117	274	118	276
7	Fr	88	Ra	89-103	Ac-Lr	104	Rf	105	Db	106	Sg	107	Bh	108	Hs	109	Mt	110	Ds	111	Rg	112	Uub	113	Uut	114	Uuq	115	Uup	116	Uuh	117	Uuhs	118	Uuo
	Francium		Radium		Actinide		Rutherfordium		Dubnium		Seaborgium		Bohrium		Hassium		Mitlerium		Darmstadtium		Roentgenium		Uunbium		Uuntrium		Uunquadium		Uunpentium		Uunhexium		Uunseptium		Uunoctium
57	138.91	58	140.12	59	140.91	60	140.91	61	140.91	62	150.36	63	151.96	64	157.25	65	162.50	66	162.50	67	164.93	68	167.26	69	168.93	70	173.04	71	174.97						
	Lanthanum		Cerium		Praseodymium		Neodymium		Promethium		Samarium		Europium		Gadolinium		Terbium		Dysprosium		Holmium		Erbium		Thulium		Ytterbium		Lutetium						
89	227	90	232.04	91	231.04	92	238.03	93	237	94	244	95	243	96	247	97	247	98	251	99	252	100	257	101	258	102	259	103	262						
	Actinium		Thorium		Protactinium		Uranium		Neptunium		Plutonium		Americium		Curium		Berkelium		Californium		Einsteinium		Fermium		Mendelevium		Nobelium		Lavrencium						

Legend:

- Alkali Metal
- Alkaline Earth Metal
- Metal
- Metalloid
- Non-metal
- Halogen
- Noble Gas
- Lanthanide/Actinide

7.1 What are the names of the following elements:

a) K = \_\_\_\_\_ (1)

b) Cl = \_\_\_\_\_ (1)

c) Na = \_\_\_\_\_ (1)

d) Mg = \_\_\_\_\_ (1)

7.2 Name 3 semi-metals, 3 metals and 3 non-metals from the Periodic Table? (9)

Semi-metals	Metals	Non-metals

7.3 List at least one **use** for the following elements:

- a) Aluminium \_\_\_\_\_ (1)  
b) Gold \_\_\_\_\_ (1)  
c) Copper \_\_\_\_\_ (1)  
d) Lithium \_\_\_\_\_ (1)  
e) Argon \_\_\_\_\_ (1)

7.4 Name an element that you use every day and explain how you use it. (2)

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**TOTAL [60]**

**PERFORMANCE ANALYSIS**  
**GRADE 7 NS TEST JUNE 2022**  
**(For Teacher use only)**

Name: \_\_\_\_\_ Grade 7: \_\_\_\_\_

<b>Section A:</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Question Number</b>				
<b>Possible Mark</b>	<b>10</b>	<b>10</b>	<b>5</b>	<b>5</b>
<b>Learner Mark</b>				
<b>Moderator Mark</b>				

<b>Section B: Question</b>	<b>5</b>	<b>6</b>	<b>7</b>
<b>Number</b>			
<b>Possible Mark</b>	<b>5</b>	<b>5</b>	<b>20</b>
<b>Learner Mark</b>			
<b>Moderator Mark</b>			