

L1–SCIER



NEW ZEALAND QUALIFICATIONS AUTHORITY
MANA TOHU MĀTAURANGA O AOTEAROA

QUALIFY FOR THE FUTURE WORLD
KIA NOHO TAKATŪ KI TŌ ĀMUA AO!

Level 1 Science 2022

RESOURCE BOOKLET for 90940 and 90944

Refer to this booklet to answer the questions for 90940 and 90944.

Check that this booklet has pages 2 and 3 in the correct order and that neither of these pages is blank.

YOU MAY KEEP THIS BOOKLET AT THE END OF THE EXAMINATION.

90940 Demonstrate understanding of aspects of mechanics

$$v = \frac{\Delta d}{\Delta t} \quad a = \frac{\Delta v}{\Delta t} \quad F_{\text{net}} = ma \quad P = \frac{F}{A} \quad \Delta E_p = mg\Delta h$$

$$E_k = \frac{1}{2}mv^2 \quad W = Fd \quad g = 10 \text{ N kg}^{-1} \quad P = \frac{W}{t}$$

90944 Demonstrate understanding of aspects of acids and bases**Table of Ions**

+1	+2	+3	-3	-2	-1
NH ₄ ⁺	Ca ²⁺	Al ³⁺		O ²⁻	OH ⁻
Na ⁺	Mg ²⁺	Fe ³⁺		S ²⁻	Cl ⁻
K ⁺	Cu ²⁺			CO ₃ ²⁻	NO ₃ ⁻
Ag ⁺	Pb ²⁺			SO ₄ ²⁻	HCO ₃ ⁻
H ⁺	Fe ²⁺				F ⁻
	Ba ²⁺				Br ⁻
	Zn ²⁺				I ⁻

PERIODIC TABLE OF THE ELEMENTS

Atomic number																		1																													
																		1																													
1																		2																													
3	4																5	6	7	8	9	10	11	12	13	14	15	16	17	18																	
Li	Be																B	C	N	O	F																										
11	12																13	14	15	16	17																										
Na	Mg																Al	Si	P	S	Cl																										
19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36																														
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr																														
37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54																														
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe																														
55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86																
Cs	Ba	Lu	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn																														
87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118																
Fr	Ra	Lr	Rf	Db	Sg	Bh	Hs	Mt	Ds	Rg	Cn	Nh	Fl	Mc	Lv	Ts	Og																														

57	58	59	60	61	62	63	64	65	66	67	68	69	70
La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb
89	90	91	92	93	94	95	96	97	98	99	100	101	102
Ac	Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No

90944