90944MR

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

Pūtaiao, Kaupae 1, 2020

90944M Te whakaatu māramatanga ki ngā āhuatanga o te waikawa me te pāpāhua¹

9.30 i te ata Rāmere 27 Whiringa-ā-rangi 2020 Whiwhinga: Whā

PUKAPUKA RAUEMI

Tirohia tēnei pukapuka hei whakatutuki i ngā tūmahi mō 90944M.

Tirohia mēnā e tika ana te raupapatanga o ngā whārangi 2–3 kei roto i tēnei pukapuka, ka mutu, kāore tētahi o aua whārangi i te takoto kau.

KA TAEA TĒNEI PUKAPUKA TE PUPURI HEI TE MUTUNGA O TE WHAKAMĀTAUTAU.

¹ kawakore

Taka Katote Table of Ions

+1	+2	+3	-3	-2	-1
NH ₄ ⁺	Ca ²⁺	A1 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⁺				
	Zn ²⁺				

TAKA PŪMOTU PERIODIC TABLE OF THE ELEMENTS

18 2 He	10 Ne	18 Ar	36 Kr	54 Xe	86 Rn	0 og
17	9 F	17 CI	35 Br	53 I	85 At	117 Ts
16	o ∞	16 S	34 Se	52 Te	84 Po	116 Lv
15	Z	15 P	33 As	51 Sb	83 Bi	115 Me
4	9 C	14 Si	32 Ge	50 Sn	82 Pb	FI
13	5 B	13 Al	31 Ga	49 In	81 TI	Nh
		12	30 Zn	48 C d	80 Hg	112 C n
		11	29 Cu	47 Ag	79 Au	Rg
		10	28 Z	46 Pd	78 Pt	110 Ds
		O	27 C0	45 Rh	77 Ir	109 Mt
	1	80	26 Fe	44 Ru	92 Os	108 Hs
1 H		_	25 Mn	43 Tc	75 Re	107 Bh
ho Number		9	24 C r	42 Mo	74 W	Sg
Tau iraoho Atomic Number		Ŋ	23 V	41 Nb	73 Ta	105 Db
		4	22 Ti	40 Zr	72 Hf	104 Rf
		ო	21 Sc	39 Y	71 Lu	103 Lr
2	4 Be	12 Mg	20 Ca	38 Sr	56 Ba	88 Ra
1	3 Li	11 Na	19 K	37 Rb	55 Cs	87 Fr

	1
70	102
Yb	No
69	101
Tm	Md
58 Er	100 101 Fm Md
67	99
Ho	Es
65 66 67 0	98 99
Tb Dy Ho	Cf Es
65	97
T b	Bk
64	95 96
Gd	Am Cm
63 64	95
Eu Gd	Am
62 Sm	94 95 Pu
) 61	93
Nd Pm	N p
PN	92 U
59	91
Pr	Pa
58	90
Ce	Th
57	89
La	Ac

English translation of the wording on the front cover

Level 1 Science, 2020

90944 Demonstrate understanding of aspects of acids and bases

9.30 a.m. Friday 27 November 2020 Credits: Four

RESOURCE BOOKLET

Refer to this booklet to answer the questions for 90944.

Check that this booklet has pages 2–3 in the correct order and that none of these pages is blank.

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