



Oxford Cambridge and RSA

GCSE (9–1) Combined Science B (Twenty First Century Science)

J260 04/08

Data Sheet (Insert)

June 2019



INSTRUCTIONS

- Do not send this Data Sheet for marking; it should be retained in the centre or destroyed.

INFORMATION

- The information in this Data Sheet is for the use of candidates following GCSE (9–1) Combined Science B (Combined Science) (J260 04/08).
- This document consists of **4** pages.

The Periodic Table of the Elements

(1) (2)

(3)

(4)

(5)

(6)

(7)

(8)

Key
atomic number
Symbol
name
relative atomic mass

1

1	H	hydrogen	1.0
---	----------	----------	-----

2

3	Li	lithium	6.9
4	Be	beryllium	9.0
11	Na	sodium	23.0
12	Mg	magnesium	24.3

19	K	potassium	39.1	20	Ca	calcium	40.1	21	Sc	scandium	45.0	22	Ti	titanium	47.9	23	V	vanadium	50.9	24	Cr	chromium	52.0	25	Mn	manganese	54.9	26	Fe	iron	55.8	27	Co	cobalt	58.9	28	Ni	nickel	58.7	29	Cu	copper	63.5	30	Zn	zinc	65.4	31	Ga	gallium	69.7	32	Ge	germanium	72.6	33	As	arsenic	74.9	34	Se	selenium	79.0	35	Br	bromine	79.9	36	Kr	krypton	83.8		
37	Rb	rubidium	85.5	38	Sr	strontium	87.6	39	Y	yttrium	88.9	40	Zr	zirconium	91.2	41	Nb	niobium	92.9	42	Mo	molybdenum	95.9	43	Tc	technetium		44	Ru	ruthenium	101.1	45	Rh	rhodium	102.9	46	Pd	palladium	106.4	47	Ag	silver	107.9	48	Cd	cadmium	112.4	49	In	indium	114.8	50	Sn	tin	118.7	51	Sb	antimony	121.8	52	Te	tellurium	127.6	53	I	iodine	126.9	54	Xe	xenon	131.3		
55	Cs	caesium	132.9	56	Ba	barium	137.3	57-71	lanthanoids					72	Hf	hafnium	178.5	73	Ta	tantalum	180.9	74	W	tungsten	183.8	75	Re	rhenium	186.2	76	Os	osmium	190.2	77	Ir	iridium	192.2	78	Pt	platinum	195.1	79	Au	gold	197.0	80	Hg	mercury	200.6	81	Tl	thallium	204.4	82	Pb	lead	207.2	83	Bi	bismuth	209.0	84	Po	polonium		85	At	astatine		86	Rn	radon	
87	Fr	francium		88	Ra	radium		89-103	actinoids					104	Rf	rutherfordium		105	Db	dubnium		106	Sg	seaborgium		107	Bh	bohrium		108	Hs	hassium		109	Mt	meitnerium		110	Ds	darmstadtium		111	Rg	roentgenium		112	Cn	copernicium		113	Nh	nihonium		114	Fl	flerovium		115	Mc	moscovium		116	Lv	livermorium		117	Ts	tennessine		118	Og	oganeson	

Equations in physics

$$(\text{final speed})^2 - (\text{initial speed})^2 = 2 \times \text{acceleration} \times \text{distance}$$

$$\text{change in internal energy} = \text{mass} \times \text{specific heat capacity} \times \text{change in temperature}$$

$$\text{energy for a change of state} = \text{mass} \times \text{specific latent heat}$$

$$\text{energy stored in a stretched spring} = \frac{1}{2} \times \text{spring constant} \times (\text{extension})^2$$

$$\begin{aligned} \text{potential difference across primary coil} \times \text{current in primary coil} = \\ \text{potential difference across secondary coil} \times \text{current in secondary coil} \end{aligned}$$

Higher tier only –

$$\text{force} = \text{magnetic flux density} \times \text{current} \times \text{length of conductor}$$

$$\text{change in momentum} = \text{resultant force} \times \text{time for which it acts}$$

OCR

Oxford Cambridge and RSA

Copyright Information

OCR is committed to seeking permission to reproduce all third-party content that it uses in its assessment materials. OCR has attempted to identify and contact all copyright holders whose work is used in this paper. To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced in the OCR Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download from our public website (www.ocr.org.uk) after the live examination series.

If OCR has unwittingly failed to correctly acknowledge or clear any third-party content in this assessment material, OCR will be happy to correct its mistake at the earliest possible opportunity.

For queries or further information please contact The OCR Copyright Team, The Triangle Building, Shaftesbury Road, Cambridge CB2 8EA.

OCR is part of the Cambridge Assessment Group; Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.