CAMBRIDGE International Examinations

Syllabus update

Cambridge International AS Level Physical Science 8780 (for examination in 2016)

We have updated this syllabus. The latest syllabus is published in October 2014.

Changes have been made to section 5.4 Symbols, signs, abbreviations and nomenclature

Data Booklet, Date and Formulae has now become

Data Booklet

Changes have been made to section 9.7 Data Booklet, including the Periodic Table of Elements

The first paragraph: Data and formulae printed in this data booklet will appear as pages 2 and 3 in Papers 1, 2 and 3, has been removed.

Changes have been made to section 6.2 Chemistry, subsection C4. Atomic Structure, page 27.

Learning text

(c) calculate enthalpy changes from appropriate experimental results, including the use of the relationship for thermal energy change $q = -mc\Delta T$

Should now read:

(c) calculate enthalpy changes from appropriate experimental results, including the use of the relationship for thermal energy change $q = mc\Delta T$

Changes have also been made to section 6.2 Chemistry, subsection C7. The Periodic Table: chemical periodicity, page 29.

Content

7.1.1 Atomic radius and ionic radius

Should now read

7.1.1 Atomic radius

Page 35

Please note changes in the Periodic Table as follows: 118.7 Sn tin 50 and – Cn copernicium 112

Group																	
I	II											III	IV	V	VI	VII	0
							1.0 H hydrogen 1										4.0 He helium 2
			Key: relative atomic mass / atomic symbol / name / atomic number									10.8 B boron 5	12.0 C carbon 6	14.0 N nitrogen 7	16.0 O oxygen 8	19.0 F fluorine 9	20.2 Ne neon 10
23.0 Na sodium 11	24.3 Mg magnesium 12											27.0 Al aluminium 13	28.1 Si silicon 14	31.0 P phosphorus 15	32.1 S sulfur 16	35.5 Cl chlorine 17	39.9 Ar argon 18
39.1 K potassium 19	40.1 Ca calcium 20	45.0 Sc scandium 21	47.9 Ti titanium 22	50.9 V vanadium 23	52.0 Cr chromium 24	54.9 Mn manganese 25	55.8 Fe iron 26	58.9 Co cobalt 27	58.7 Ni nickel 28	63.5 Cu copper 29	65.4 Zn zinc 30	69.7 Ga gallium 31	72.6 Ge germanium 32	74.9 As arsenic 33	79.0 Se selenium 34	79.9 Br bromine 35	83.8 Kr krypton 36
85.5 Rb rubidium 37	87.6 Sr strontium 38	88.9 Y yttrium 39	91.2 Zr zirconium 40	92.9 Nb niobium 41	95.9 Mo molybdenum 42	– Tc technetium 43	101.1 Ru ruthenium 44	102.9 Rh rhodium 45	106.4 Pd palladium 46	107.9 Ag silver 47	112.4 Cd cadmium 48	114.8 In indium 49	118.7 Sn tin 50	121.8 Sb antimony 51	127.6 Te tellurium 52	126.9 I iodine 53	131.3 Xe xenon 54
132.9 Cs caesium 55	137.3 Ba barium 56	lanthanoids 57–71	178.5 Hf hafnium 72	180.9 Ta tantalum 73	183.8 W tungsten 74	186.2 Re rhenium 75	190.2 Os osmium 76	192.2 Ir iridium 77	195.1 Pt platinum 78	197.0 Au gold 79	200.6 Hg mercury 80	204.4 Tl thallium 81	207.2 Pb lead 82	209.0 Bi bismuth 83	– Po polonium 84	– At astatine 85	– Rn radon 86
– Fr francium 87	– Ra radium 88	actinoids 89–103	– Rf rutherfordium 104	– Db dubnium 105	– Sg seaborgium 106	– Bh bohrium 107	– Hs hassium 108	– Mt meitnerium 109	– Ds darmstadtium 110	– Rg roentgenium 111	– Cn copernicium 112		– Fl flerovium 114		– Lv livermorium 116		

lanthanoids	138.9 La lanthanum 57	140.1 Ce cerium 58	140.9 Pr praseodymium 59	144.4 Nd neodymium 60	– Pm promethium 61	150.4 Sm samarium 62	152.0 Eu europium 63	157.3 Gd gadolinium 64	158.9 Tb terbium 65	162.5 Dy dysprosium 66	164.9 Ho holmium 67	167.3 Er erbium 68	168.9 Tm thulium 69	173.1 Yb ytterbium 70	175.0 Lu lutetium 71
actinoids	– Ac actinium 89	232.0 Th thorium 90	231.0 Pa protactinium 91	238.0 U uranium 92	– Np neptunium 93	– Pu plutonium 94	– Am americium 95	– Cm curium 96	– Bk berkelium 97	– Cf californium 98	– Es einsteinium 99	– Fm fermium 100	– Md mendelevium 101	– No nobelium 102	– Lr lawrencium 103