

**OXFORD CAMBRIDGE AND RSA EXAMINATIONS  
GCSE (9–1)  
J250 03/04/09/10  
COMBINED SCIENCE A  
(Gateway Science) Chemistry  
DATA SHEET (INSERT)  
JUNE 2018  
MODIFIED ENLARGED 36pt**

**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 A (Chemistry)  
(J250 03/04/09/10).**



The Periodic Table of the Elements

(1)

(2)

(3)

(4)

(5)

(6)

(7)

(0)

| 1                    |                        | 2                       |                         |                       |                          |                         |                          |                        |                          |                       |                        | 18                      |                         |                         |                          |                        |                       |
|----------------------|------------------------|-------------------------|-------------------------|-----------------------|--------------------------|-------------------------|--------------------------|------------------------|--------------------------|-----------------------|------------------------|-------------------------|-------------------------|-------------------------|--------------------------|------------------------|-----------------------|
| Key                  |                        |                         |                         |                       |                          |                         |                          |                        |                          |                       |                        |                         |                         |                         |                          |                        |                       |
| atomic number        |                        | Symbol                  |                         |                       |                          |                         |                          |                        |                          |                       |                        | name                    |                         |                         |                          |                        |                       |
| relative atomic mass |                        |                         |                         |                       |                          |                         |                          |                        |                          |                       |                        |                         |                         |                         |                          |                        |                       |
|                      |                        | 3                       | 4                       | 5                     | 6                        | 7                       | 8                        | 9                      | 10                       | 11                    | 12                     | 13                      | 14                      | 15                      | 16                       | 17                     | 18                    |
| 1                    | H<br>hydrogen<br>1.0   | 21                      | 22                      | 23                    | 24                       | 25                      | 26                       | 27                     | 28                       | 29                    | 30                     | 5                       | 6                       | 7                       | 8                        | 9                      | 2                     |
| 3                    | Li<br>lithium<br>6.9   | Sc<br>scandium<br>45.0  | Ti<br>titanium<br>47.9  | V<br>vanadium<br>50.9 | Cr<br>chromium<br>52.0   | Mn<br>manganese<br>54.9 | Fe<br>iron<br>55.8       | Co<br>cobalt<br>58.9   | Ni<br>nickel<br>58.7     | Cu<br>copper<br>63.5  | Zn<br>zinc<br>65.4     | B<br>boron<br>10.8      | C<br>carbon<br>12.0     | N<br>nitrogen<br>14.0   | O<br>oxygen<br>16.0      | F<br>fluorine<br>19.0  | He<br>helium<br>4.0   |
| 11                   | Na<br>sodium<br>23.0   | Y<br>yttrium<br>88.9    | Zr<br>zirconium<br>91.2 | Nb<br>niobium<br>92.9 | Mo<br>molybdenum<br>95.9 | Tc<br>technetium        | Ru<br>ruthenium<br>101.1 | Rh<br>rhodium<br>102.9 | Pd<br>palladium<br>106.4 | Ag<br>silver<br>107.9 | Cd<br>cadmium<br>112.4 | Al<br>aluminium<br>27.0 | Si<br>silicon<br>28.1   | P<br>phosphorus<br>31.0 | S<br>sulfur<br>32.1      | Cl<br>chlorine<br>35.5 | Ar<br>argon<br>39.9   |
| 19                   | K<br>potassium<br>39.1 | Ca<br>calcium<br>40.1   |                         |                       |                          |                         |                          |                        |                          |                       |                        | Ga<br>gallium<br>69.7   | Ge<br>germanium<br>72.6 | As<br>arsenic<br>74.9   | Se<br>selenium<br>79.0   | Br<br>bromine<br>79.9  | Kr<br>krypton<br>83.8 |
| 37                   | Rb<br>rubidium<br>85.5 | Sr<br>strontium<br>87.6 |                         |                       |                          |                         |                          |                        |                          |                       |                        | In<br>indium<br>114.8   | Sn<br>tin<br>118.7      | Sb<br>antimony<br>121.8 | Te<br>tellurium<br>127.6 | I<br>iodine<br>126.9   | Xe<br>xenon<br>131.3  |
| 55                   | Cs<br>caesium<br>132.9 | Ba<br>barium<br>137.3   | 57–71<br>lanthanoids    |                       |                          |                         |                          |                        |                          |                       |                        | Tl<br>thallium<br>204.4 | Pb<br>lead<br>207.2     | Bi<br>bismuth<br>209.0  | Po<br>polonium           | At<br>astatine         | Rn<br>radon           |
| 87                   | Fr<br>francium         | 88                      | 89–103<br>actinoids     |                       |                          |                         |                          |                        |                          |                       |                        |                         |                         |                         | 116<br>Lv<br>livermorium |                        |                       |

# ELEMENTS LISTED IN NUMERICAL ORDER:

|    |            |    |    |            |    |
|----|------------|----|----|------------|----|
| 1  | Hydrogen   | H  | 25 | Manganese  | Mn |
| 2  | Helium     | He | 26 | Iron       | Fe |
| 3  | Lithium    | Li | 27 | Cobalt     | Co |
| 4  | Beryllium  | Be | 28 | Nickel     | Ni |
| 5  | Boron      | B  | 29 | Copper     | Cu |
| 6  | Carbon     | C  | 30 | Zinc       | Zn |
| 7  | Nitrogen   | N  | 31 | Gallium    | Ga |
| 8  | Oxygen     | O  | 32 | Germanium  | Ge |
| 9  | Fluorine   | F  | 33 | Arsenic    | As |
| 10 | Neon       | Ne | 34 | Selenium   | Se |
| 11 | Sodium     | Na | 35 | Bromine    | Br |
| 12 | Magnesium  | Mg | 36 | Krypton    | Kr |
| 13 | Aluminium  | Al | 37 | Rubidium   | Rb |
| 14 | Silicon    | Si | 38 | Strontium  | Sr |
| 15 | Phosphorus | P  | 39 | Yttrium    | Y  |
| 16 | Sulfur     | S  | 40 | Zirconium  | Zr |
| 17 | Chlorine   | Cl | 41 | Niobium    | Nb |
| 18 | Argon      | Ar | 42 | Molybdenum | Mo |
| 19 | Potassium  | K  | 43 | Technetium | Tc |
| 20 | Calcium    | Ca | 44 | Ruthenium  | Ru |
| 21 | Scandium   | Sc | 45 | Rhodium    | Rh |
| 22 | Titanium   | Ti | 46 | Palladium  | Pd |
| 23 | Vanadium   | V  | 47 | Silver     | Ag |
| 24 | Chromium   | Cr | 48 | Cadmium    | Cd |

|           |                  |           |            |                      |           |
|-----------|------------------|-----------|------------|----------------------|-----------|
| <b>49</b> | <b>Indium</b>    | <b>In</b> | <b>104</b> | <b>Rutherfordium</b> | <b>Rf</b> |
| <b>50</b> | <b>Tin</b>       | <b>Sn</b> | <b>105</b> | <b>Dubnium</b>       | <b>Db</b> |
| <b>51</b> | <b>Antimony</b>  | <b>Sb</b> | <b>106</b> | <b>Seaborgium</b>    | <b>Sg</b> |
| <b>52</b> | <b>Tellurium</b> | <b>Te</b> | <b>107</b> | <b>Bohrium</b>       | <b>Bh</b> |
| <b>53</b> | <b>Iodine</b>    | <b>I</b>  | <b>108</b> | <b>Hassium</b>       | <b>Hs</b> |
| <b>54</b> | <b>Xenon</b>     | <b>Xe</b> | <b>109</b> | <b>Meitnerium</b>    | <b>Mt</b> |
| <b>55</b> | <b>Caesium</b>   | <b>Cs</b> | <b>110</b> | <b>Darmstadtium</b>  | <b>Ds</b> |
| <b>56</b> | <b>Barium</b>    | <b>Ba</b> | <b>111</b> | <b>Roentgenium</b>   | <b>Rg</b> |
| <b>72</b> | <b>Hafnium</b>   | <b>Hf</b> | <b>112</b> | <b>Copernicium</b>   | <b>Cn</b> |
| <b>73</b> | <b>Tantalum</b>  | <b>Ta</b> | <b>114</b> | <b>Flerovium</b>     | <b>Fl</b> |
| <b>74</b> | <b>Tungsten</b>  | <b>W</b>  | <b>116</b> | <b>Livermorium</b>   | <b>Lv</b> |
| <b>75</b> | <b>Rhenium</b>   | <b>Re</b> |            |                      |           |
| <b>76</b> | <b>Osmium</b>    | <b>Os</b> |            |                      |           |
| <b>77</b> | <b>Iridium</b>   | <b>Ir</b> |            |                      |           |
| <b>78</b> | <b>Platinum</b>  | <b>Pt</b> |            |                      |           |
| <b>79</b> | <b>Gold</b>      | <b>Au</b> |            |                      |           |
| <b>80</b> | <b>Mercury</b>   | <b>Hg</b> |            |                      |           |
| <b>81</b> | <b>Thallium</b>  | <b>Tl</b> |            |                      |           |
| <b>82</b> | <b>Lead</b>      | <b>Pb</b> |            |                      |           |
| <b>83</b> | <b>Bismuth</b>   | <b>Bi</b> |            |                      |           |
| <b>84</b> | <b>Polonium</b>  | <b>Po</b> |            |                      |           |
| <b>85</b> | <b>Astatine</b>  | <b>At</b> |            |                      |           |
| <b>86</b> | <b>Radon</b>     | <b>Rn</b> |            |                      |           |
| <b>87</b> | <b>Francium</b>  | <b>Fr</b> |            |                      |           |
| <b>88</b> | <b>Radium</b>    | <b>Ra</b> |            |                      |           |

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