

## Atoms and the Periodic Table (BOM10) – Revision Checklist

I can...	Lesson	Revised?
State that all substances are made of atoms	BOM10 LE2	
Define atoms	BOM10 LE2	
Represent elements using chemical symbols	BOM10 LE2	
Recall the names and symbols of the first 20 elements	BOM10 LE4	
Recall the names and symbols of the group 1 elements	BOM10 LE4	
Recall the names and symbols of the group 7 elements	BOM10 LE4	
Define a compound	BOM10 LE7	
Describe how compounds are formed	BOM10 LE7	
Describe chemical reactions	BOM10 LE7	
Write word equations using given information	BOM10 LE7	
Write symbol equations for given reactions	BOM10 LE7	
Balance chemical equations	BOM10 LE7	
Name compounds from formulae	BOM10 LE7	
Determine formulae from names of compounds	BOM10 LE7	
(HT) Write ionic equations and half equations	BOM10 LE9	
Describe early ideas of atoms	BOM10 LE2	
Describe the plum pudding model	BOM10 LE2	
Describe the alpha scattering experiment and subsequent results	BOM10 LE2	
Explain how the alpha scattering experiment led to the nuclear model	BOM10 LE2	
Describe the early nuclear model	BOM10 LE2	
Describe Bohr's contribution to the atomic model	BOM10 LE3	
Describe how the proton was identified	BOM10 LE3	
Describe Chadwick's contribution to the atomic model	BOM10 LE3	
Compare the plum pudding and nuclear models	BOM10 LE3	
Explain how scientific models change with new evidence	BOM10 LE3	
Describe the current model of the atom	BOM10 LE3	
State the relative charges of the subatomic particles in an atom	BOM10 LE3	
State the relative masses of the subatomic particles in an atom	BOM10 LE3	
Define atomic number	BOM10 LE3	
Define mass number	BOM10 LE3	
Explain why atoms have no overall charge	BOM10 LE3	
Calculate numbers of protons, neutrons and electrons in an atom	BOM10 LE3	
Define isotopes	BOM10 LE5	
Calculate relative atomic mass from isotope data	BOM10 LE5	
Recall the radius of an atom	BOM10 LE2	
Recall the proportion of the whole atom taken up by the nucleus	BOM10 LE3	
Describe the nucleus in terms of mass	BOM10 LE3	
Relate atomic size to real-world scale	BOM10 LE2	
Write electron configurations (e.g. sodium = 2,8,1)	BOM10 LE4	
Link outer shell electrons to reactivity	BOM10 LE7	
Describe the arrangement of elements in the periodic table	BOM10 LE4	
Define groups (columns) and periods (rows)	BOM10 LE4	
Describe trends in properties for groups and periods	BOM10 LE6	
Link group number to outer shell electrons	BOM10 LE4	
Predict reactivity from position in the periodic table	BOM10 LE6	
Describe early attempts to arrange elements by atomic weight	BOM10 LE5	
Explain problems with early tables	BOM10 LE5	
Describe the contributions of Mendeleev to the modern periodic table	BOM10 LE5	
Explain why Mendeleev's ideas were accepted over others	BOM10 LE5	

Define metals and non-metals	BOM10 LE4	
Identify the ion formed by a metal	BOM10 LE7	
Describe where metals and non-metals are found in the periodic table	BOM10 LE4	
Compare physical properties of metals and non-metals	BOM10 LE7	
Compare chemical properties of metals and non-metals	BOM10 LE7	
Describe the reactivity of group 0 elements	BOM10 LE6	
Explain why group 0 elements demonstrate that reactivity	BOM10 LE6	
Describe the trend in boiling points in group 0	BOM10 LE6	
Predict properties from trends	BOM10 LE6	
Describe reactions of group 1 elements with water	BOM10 LE7	
Describe reactions of group 1 elements with oxygen	BOM10 LE7	
Describe reactions of group 1 elements with chlorine	BOM10 LE7	
Describe the trend of reactivity in group 1 elements	BOM10 LE7	
(HT) Explain reactivity trend of group 1 elements	BOM10 LE7	
Describe molecules formed by group 7 elements	BOM10 LE8	
Describe reactions of group 7 elements with metals and non-metals	BOM10 LE8	
Explain the trend in boiling point of group 7 elements	BOM10 LE8	
Describe trend of reactivity in group 7 elements	BOM10 LE8	
(HT) Explain the reactivity trend of group 7 elements	BOM10 LE8	
Define 'displacement reactions'	BOM10 LE8	
Use an elements position to predict whether displacement will take place	BOM10 LE8	
Explain why displacement reactions take place	BOM10 LE8	