## **Year 9: Chemical World- The Periodic Table**

	Check	Date	
Revise assumed knowledge: SC4-16CW describes the observed properties and behaviour of matter, using scientific models and theories about the motion and arrangement of particles			
SC4-17CW explains how scientific understanding of, and discoveries about the properties of elements, compounds and mixtures relate to their uses in everyday life			
CW2 The atomic structure and properties of elements are used to organise them in the Periodic			
Table. (ACSSU186) HISTORY OF THE PERIODIC TABLE			
5CW2a. identify the atom as the smallest unit of an element and that it can be represented by a symbol			
<b>Define</b> the terms element and atom			
<b>Identify</b> the symbols for common elements			
LITERACY SET 1: COSMOS ARTICLE			
<b>Assessment: Oxford online test-</b> History of the Periodic table. Students to achieve 100% in Support and Consolidate <b>OR</b> Consolidate and Extend			
ORGANISING THE ELEMENTS			
5CW2b. distinguish between the atoms of some common elements by comparing information about the numbers of protons, neutrons and electrons			
<b>Define</b> the terms atomic number, atomic mass, proton, neutron and electron			
<b>Recall</b> key patterns within the periodic table (groups, periods, metals and non-metals, reactivity)			
<b>Identify</b> the location of protons, neutrons and electrons in an atom			
Distinguish between atomic and mass number			
5CW2c. describe the organisation of elements in the Periodic Table using their atomic number			
Identify metals, metalloids, non-metals and inert gases on a periodic table			
Identify and number the columns (Groups) and rows (Periods)			
<b>Describe</b> the organisation of common elements based on their atomic number			
LITERACY SET 2: MIXED ACTIVITIES			
Assessment: Oxford online test- Organising the elements Students to achieve 100% in Support and Consolidate OR Consolidate and Extend			
ATOMIC STRUCTURE AND PROPERTIES			
5CW2d. <u>relate</u> the properties of some common elements to their position in the Periodic Table			
5CW2e. predict, using the Periodic Table, the properties of some common elements			
<b>Describe</b> the general properties of metals			
Describe the properties of alkali (group I) metals			
<b>Describe</b> the properties of alkaline (group II) metals			

<b>Define and describe</b> the term transition metals	
CODE: 9CW20 First-Hand investigation: Reactivity of Metals (Oxford pg56)	
Define and describe the term non-metal	
<b>Define</b> and <b>describe</b> the term halogen (group VII)	
<b>Define</b> and <b>describe</b> the term noble gas (group VIII)	
<b>Define</b> the terms electron shells, valence electrons and ions	
<b>Describe</b> the concept of electron shells (2,8,8)	
<b>Explain</b> the link between periodic table groups and the number of valence electrons	
<b>Predict</b> the properties (conductivity, chemical reactivity, melting and boiling point) of some common elements based on their position in the periodic table	
9CW21 First-Hand investigation: Conductivity of ionic compounds (Oxford pg69)	
5CW2f. outline some examples to show how creativity, logical reasoning and the scientific evidence available at the time, contributed to the development of the modern Periodic Table	
Recall that the periodic table is organised by atomic number	
<b>Describe</b> the format of the current periodic table <u>compared</u> to previous versions	
<b>Describe</b> the contributions to the development of the periodic table by Alexandre-Emile Beguyrer de Chancourtois, John Newlands, Julius Lothar Meyer, Dmitri Mendeleev and Henry Mosley	
NUMERACY AND SKILLS SET	
Assessment: Oxford online test- Atomic structure and properties Students to achieve 100% in Support and Consolidate OR Consolidate and Extend	
Assessment: Periodic Table Chapter Test	
Comments and Suggested improvements	