

I Can Statement - Year 7

AECM



Unit/Topic Overview	Pre-taught Vocabulary	
In this topic, atomic structure and chemical bonding are key ideas in science that help us understand the composition of all matter. You will learn that all substances are made up of tiny atoms, which can exist as pure elements or chemically join together to form compounds. You will also explore how substances can be physically blended without bonding to create mixtures, and how these can be separated. By studying AECM, you will be able to better explain the properties and composition of everyday materials around us.	Atom	Element
	Compound	Mixture
	Molecule	Chemical Bond
	Periodic Table	Pure Substance
	Separation	Solution

RAG Rating:		Start	End
1.	I can define an atom as the smallest part of an element that can exist and describe its basic structure (a central nucleus orbited by electrons). I can identify atomic number and atomic mass and understand what they are.		
2.	I understand that an element is a substance made of only one type of atom and can locate common elements (like Oxygen, Iron, or Carbon) on the Periodic Table.		
3.	I can distinguish between individual atoms and molecules (two or more atoms chemically joined together), including elements that exist as diatomic molecules like O ₂		
4.	I can explain that a compound is formed when two or more different elements are chemically bonded together in fixed proportions (e.g., H ₂ O) I can recognise that properties of elements are not necessarily the same as those of the compounds they make.		
5.	I can explain the difference between a mixture (where substances are not chemically joined and can be separated physically) and a compound (which requires a chemical reaction to separate).		
6.	I can use and recognize standard chemical symbols (e.g., H for Hydrogen, Na for Sodium) and understand why the first letter is always capitalized.		
7.	I can "decode" a chemical formula to state how many atoms of each element are present. For example, in H ₂ SO ₄ , they identify 2 Hydrogen, 1 Sulfur, and 4 Oxygen atoms.		
8.	I can apply basic naming rules, such as changing the ending to "-ide" for binary compounds (like Sodium Chloride) or "-ate" when oxygen is present (like Copper Sulfate).		
9.	Students are familiar with the Periodic Table and can label it with Groups and metal, non-metal, Halogen, Nobel gas. They recognise the relationship between elements in each group. properties		