

Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

**Unit 6 Learning Objectives – Particles with Internal Structure**

Learning Objectives	Your understandings and resources
<p>1. Describe a model of the atom that accounts for the fact that neutral particles can become either positively or negatively charged.</p> <p>Cite experimental evidence from J.J. Thomson's experiments that supported his atomic model.</p>	
<p>2. Apply the above atomic model to explain the observed interactions between the tapes, foil and paper in the Sticky Tape Lab.</p> <p>Identify the key property that distinguishes metals from nonmetals. Apply the atomic model to account for the difference in this property.</p> <p>Explain the term polarization.</p> <p>Apply the same atomic model to explain observations such as a balloon being attracted to the wall after rubbing against hair.</p>	
<p>3. Cite evidence that distinguishes ionic from molecular compounds. Give specific examples.</p>	

Learning Objectives	Your understandings and resources
<p>4. Cite evidence for (+) charged metal ions and (-) charged nonmetal ions. Give atomic level explanations.</p>	
<p>5. Differentiate atomic, molecular and ionic solids by their atomic structures. Relate the structures to their properties such as melting and boiling points.</p> <p>Classify a given unit cell of an elemental, molecular or or ionic substance</p> <p>Describe similarities and differences between an ionic solid and a molecular solid both at the micro scale and the macro scale.</p> <p>Determine whether a compound is ionic or molecular from the elements that make up the compound.</p> <p>Draw particle diagrams for ionic, molecular and atomic substances that demonstrate distinguishable characteristics of each type of substance.</p>	