

Curriculum Mapping

School: Illini Bluffs High School

School Year: 2009-2010

Course: Physical Science

Grade Level: 9

Month	ILS	Content	Skills	Assessments	Resources
August	11.A.4a 13.A.4a	Nature of Science Scientific Method	<ul style="list-style-type: none"> ●Identifying parts of the scientific method 	<ul style="list-style-type: none"> -Worksheets -Presentation 	
September	13.A.4b 13.A.4c	Significant Figures Metric System Matter	<ul style="list-style-type: none"> ●Apply the concept of significant figures to scientific calculations ●Perform conversion within the metric system ●Identify basic properties of matter ●Describe the three phases of matter ●Identify ways in which matter can change phase ●Distinguish between physical and chemical changes in matter ●Understand the difference between elements and compounds ●Locate various materials on the periodic table ●Identify properties of metals and nonmetals 	<ul style="list-style-type: none"> -Worksheets -Quiz -Test 	<i>Physical Science: Concepts in Action</i> Wyssession, Frank, and Yancopoulos. Prentice Hall Publishing 2009

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			<ul style="list-style-type: none"> ●Identify properties of the inert gases 		
October	12.D.4b	Atomic Structure	<ul style="list-style-type: none"> ●Understand changing views in atomic structure ●Identify the basic parts of an atom ●Identify the number of protons in a given element ●Find the atomic mass of a given element ●Explain the differences in isotopes ●Describe how electrons are organized in an atom 	<ul style="list-style-type: none"> -Worksheets -Quiz -Lab -Test 	<i>Physical Science: Concepts in Action</i> Wyession, Frank, and Yancopoulos. Prentice Hall Publishing 2009
November	12.C.4b	Periodic Table	<ul style="list-style-type: none"> ●Understand the organization of Mendeleev's periodic table ●Understand evidence that proves the tables is useful ●Explain the arrangement of the modern periodic 	<ul style="list-style-type: none"> -Worksheets -Quiz -Lab -Test 	

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			<p>table</p> <ul style="list-style-type: none"> •Describe the trends and characteristics of periods and groups •Predict the reactivity of some elements based on their location within a group 		
December		Thermodynamics	<ul style="list-style-type: none"> •Identify heat as a form of energy •Understand how heat is measured •Identify the freezing and melting point of certain substances •Differentiate between boiling and evaporation <p>Describe how heat is transferred through solids, liquids, and gases</p> <ul style="list-style-type: none"> •Describe thermal expansion 	<ul style="list-style-type: none"> -Worksheets -Quiz -Lab -Test 	<p><i>Physical Science: Concepts in Action</i> Wysession, Frank, and Yancopoulos. Prentice Hall Publishing 2009</p>
January	12.C.4a 12.D.4a	Motion	<ul style="list-style-type: none"> •Understand differences in kinetic and potential 	<ul style="list-style-type: none"> -Worksheets -Quiz 	

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			<p>energy</p> <ul style="list-style-type: none"> ●Identify different forms of energy ●Explain the law of conservation of energy ●Relate work, force, and distance. ●Measure work properly ●Explain power and how it is measured. ●Identify speed and velocity ●Calculate velocity ●Calculate acceleration 	<p>-Lab -Test</p>	
February	12.D.4b	Forces and Motion	<ul style="list-style-type: none"> ●Describe how unbalanced forces affect motion ●Describe Newton’s three laws of motion. ●Identify forces present in nature ●Explain Newton’s law of gravity ●Identify types of frictional 	<p>-Worksheets -Quiz -Test</p>	<p><i>Physical Science: Concepts in Action</i> Wysession, Frank, and Yancopoulos. Prentice Hall Publishing 2009</p>

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			<p>forces</p> <ul style="list-style-type: none"> ●Identify pressure as a force acting on a certain area 		
March	12.D.4b	Work Power and Machines	<ul style="list-style-type: none"> ●Relate work, force, and distance. ●Measure work properly ●Explain power and how it is measured. ●Calculate mechanical advantage of machines ●Calculate the efficiency of a machine ●Describe the three classes of levers and how they work ●Compare fixed and moveable pulleys 	<ul style="list-style-type: none"> -Worksheets -Quiz -Lab -Test 	<p><i>Physical Science: Concepts in Action</i> Wysession, Frank, and Yancopoulos. Prentice Hall Publishing 2009</p>
April	12.F.5a	Energy	<ul style="list-style-type: none"> ●Understand differences in kinetic and potential energy ●Identify different forms of energy 	<ul style="list-style-type: none"> -Worksheets -Quiz -Test 	

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			<ul style="list-style-type: none"> ● Explain the law of conservation of energy 		
May	12.F.4a 12.F.4b 12.F.5a 12.F.5b	Exploring the Universe	<ul style="list-style-type: none"> ● Explain why the sun remains stable over time ● Classify stars according to chemical and physical properties ● Predict what happens to a star when it runs out of fuel ● Classify galaxies based on their appearance and composition ● Relate Hubble's Law to red shifts and the expansion of the universe. 	-Worksheets -Quiz -Test	<i>Physical Science: Concepts in Action</i> Wyession, Frank, and Yancopoulos. Prentice Hall Publishing 2009