

**Maine Science and Technology Grades 9-12  
Contents Standards Mapping**

© Boardworks 2009

The Physical Setting	Boardworks High School Earth Science Presentations
<b>D1 Universe and Solar System - Students explain the physical formation and changing nature of our universe and solar system, and how our past and present knowledge of the universe and solar system developed.</b>	
a. Explain why the unit of light years can be used to describe distances to objects in the universe and use light years to describe distances.	Astronomical Distances
b. Explain the role of gravity in forming and maintaining planets, stars, and the solar system.	Gravity and Orbits Planets of the Solar System The Life Cycle of Stars
c. Outline the age, origin, and process of formation of the universe as currently understood by science.	Astronomical Distances Doppler Effect Observing the Universe
d. Describe the major events that have led to our current understanding of the universe and the current technologies used to further our understanding.	Doppler Effect Observing the Universe Telescopes
<b>D2 Earth - Students describe and analyze the biological, physical, energy, and human influences that shape and alter Earth Systems.</b>	
a. Describe and analyze the effect of solar radiation, ocean currents, and atmospheric conditions on the Earth's surface and the habitability of Earth.	The Atmosphere Heat Transfer and Global Interactions ENSO Precipitation The Rotation of the Earth Tropical Cyclones Weather and Climate
b. Describe Earth's internal energy sources and their role in plate tectonics.	Earth's Structure Earthquake Causes Earthquake Effects Managing Earthquakes Plate Tectonics Volcanoes

<p>c. Describe and analyze the effects of biological and geophysical influences on the origin and changing nature of Earth Systems.</p>	<p>The Carbon Cycle  The Nitrogen Cycle  Recycling Nutrients  The Rock Cycle  The Water Cycle</p>
<p>d. Describe and analyze the effects of human influences on Earth Systems.</p>	<p>Air Pollution  Climate Change  Crude Oil  Evidence for Climate Change  Fossil Fuels  Formation of Fossil Fuels  Greenhouse Gases  Human Impact on the Environment  Loss of Diversity  The Impact of Using CFCs  The Impact of Mining  Water Pollution</p>