

Illinois Learning Standards Goal 12

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State Goal 12	Boardworks High School Earth Science Presentation
E. Know and apply concepts that describe the features and processes of the Earth and its resources.	
12.E.4a Explain how external and internal energy sources drive Earth processes (e.g., solar energy drives weather patterns; internal heat drives plate tectonics).	The Carbon Cycle Conduction and Convection Formation of Fossil Fuels Heat Transfer and Global Interactions The Nitrogen Cycle Plate Tectonics The Rock Cycle The Water Cycle
12.E.4b Describe how rock sequences and fossil remains are used to interpret the age and changes in the Earth.	Earth's Structure Fossil Record Radioactive Dating The Rock Cycle
<i>12.E.5 Analyze the processes involved in naturally occurring short-term and long-term Earth events (e.g. floods, ice ages, temperature, sea-level fluctuations).</i>	Extreme Flooding Greenhouse Gases River Flooding
F. Know and apply concepts that explain the composition and structure of the universe and Earth's place in it.	
12.F.4a Explain theories, past and present, for changes observed in the universe.	Astronomical Distances Doppler Effect Observing the Universe Planets of the Solar System Structure of the Universe
12.F.4b Describe and compare the chemical and physical characteristics of galaxies and objects within galaxies (e.g. pulsars, nebulae, black holes, dark matter, stars).	Structure of the Universe Planets of the Solar System The Life Cycle of Stars Properties of Stars
12.F.5a Compare the processes involved in the life cycle of stars (e.g. gravitational collapse, thermonuclear fusion, nova) and evaluate the supporting evidence.	The Life Cycle of Stars Properties of Stars

12.F.5b Describe the size and age of the universe and evaluate the supporting evidence (e.g. red-shift, Hubble's constant).

Doppler Effect
Observing the Universe