

Kentucky
High School

Starry Night Lesson Plans				
<i>In order of relevance</i>				
The Earth and the Universe (Earth/Space Science)				
Enduring Knowledge – Understandings				
<i>Students will understand that</i>				
· Gravity played an essential role in the formation of the universe and is one of the fundamental forces that controls the function of the universe and the systems within it.	H1-H3	G3	F3	C2
· Current estimates of the ages of the Earth (4.6 billion years) and the universe (10+ billion years) are based on a variety of measurement techniques that have unique strengths and limitations. The same evidence that establishes the extreme age of the universe also indicates its vastness.	F3	G1-G3	H1-H3	I1-I3
· Stars have cycles of birth and death, and the lives of large stars end in explosions that provide the elements to create new stars and planets. All living things on Earth are also formed from this recycled matter.	G2	G3	F3	
· The speed of light is dwarfed by the vastness of the universe, resulting in the human view of the sky being essentially a “look back in time” as we view light that was emitted long in the past and has been traveling across the cosmos to reach Earth.	H1-H3			
· Mathematical models and computer simulations are used in studying evidence from many sources to form a scientific account of the universe.	G1-G3	H1-H3	I1-I3	
· Scientists rely on increasingly sophisticated methods of measurement in order to investigate a variety of phenomena that were previously immeasurable.	G1-G3	H1-H3	I1-I3	F2 C4
Curiosity, honesty, openness and skepticism are highly regarded in science, and are incorporated into the way science is carried out.	E4	C4		