

**Vermont**  
High School

**Starry Night Lesson Plans**  
In order of relevance

**Grades 9-12 Expectations**

**UNIVERSE, EARTH, ENVIRONMENT**

<b>S9-12:44 Characteristics of the Solar System</b>	C1-C4	B1-B2	F1-F3	D1-D3	I2		
Compare the nature and composition of the atmosphere of inner and outer planets.	C1-C4						
Explain the effect of distance from the sun on the nature of the planets (e.g., inner vs. outer planets).	C1-C4	B1-B2	F1-F3	D1-D3	I2		
<b>S9-12:45 Processes and Change over Time within Systems of the Universe</b>	All Starry Night lesson plans						
Describe the process of star formation (i.e. our sun) in relation to its size, including the interaction of the force of gravity, fusion and energy release.	F1-F3	G2	G3				
Explain the process of the Big Bang Theory and its effect on the Universe today, citing evidence to support its occurrence (Doppler effect/red shift).	H1-H3	I3					
Explain how technology through time has influenced our understanding of the vastness (i.e., light years) and the nature of the universe (e.g., Ptolemy, Copernicus, Kepler, Einstein).	I1-I3	H1-H3	F1-F3	C1-C4	D1-D3	G1-G3	E1-E4
<b>S9-12:48 Processes and Change over Time within Earth Systems</b>	B1-B2	C1	C3	F1-F3	G2	I2	
Explaining the uniqueness of the earth's characteristics (e.g., solar intensity, gravity related to size of earth, makeup of atmosphere).	B1-B2	C1	C3	F1-F3	G2	I2	