

## Year A: Science High School (9<sup>th</sup> and 10<sup>th</sup> grades)

	Cycle 1	Cycle 2	Cycle 3	Cycle 4
Theme	Our Universe, Our Place	Identity	Change	Connections
<p>Connection of Theme to the Needs of the Adolescent. Consider the 7 Gateways.</p> <p><i>(What about your theme sparks interest and excitement between the theme name, curriculum, and you students?)</i></p>	<p>From the seven Gateways students are concerned with meaning and purpose - "the exploration of big questions, such as "Why am I here?" "Does my life have a purpose? How do I find out what it is?" "What is life for?" "What is my destiny?" "What does my future hold?" and "Is there a God?"</p>	<p>Adolescents are forming their own identities.</p>	<p>Adolescents are experiencing physical and emotional changes in their bodies and brains.</p>	<p>From Seven Gateways adolescents are looking for deep connections with others. They want relationships that are "profoundly caring, is resonant with meaning, and involves feelings of belonging, or of begin truly seen and known. Students may experience deep connection to themselves, to others, to nature, or to a higher power."</p>
<p>Connections of Theme to Curriculum and Academic Skills</p> <p><i>(How do your standards/scope and sequence connect organically to the theme?)</i></p>	<ul style="list-style-type: none"> <li>How did the universe and everything in it come into being? Formation of the universe, Big Bang, Formation of galaxies and the solar system, Life cycle of stars, light spectra of stars, elements created by stars, Wave Properties, Electromagnetic Radiation</li> <li>Cross Connection – History of scientific instruments and discoveries or we are made of star dust art/writing project or using a camera obscura to paint a picture like Vermeer (I am waffling)</li> </ul>	<ul style="list-style-type: none"> <li>Identify Properties of Materials, States of Matter, what makes a material a certain way?</li> <li>Cross Connection – Math rate of change, equations with two variables and plotting data from measurements to find slope/rate of change</li> </ul>	<ul style="list-style-type: none"> <li>How has the Earth changed in time? Formation of Earth, Parts of Earth, Plates and Continents, Rock Cycle, Geomorphology, Determining Geological Time</li> <li>Cross Connection – History - Using rock formations and carbon 14 dating for determining pre-history timeline</li> </ul>	<ul style="list-style-type: none"> <li>How are things in the environment connected with energy? Energy transfer in different systems, how are things connected with energy – Food Webs, Ecosystems, exo- and endo- thermic reactions, PE/KE relationships</li> <li>Cross connection – Engineering networks, how are people connected with communications</li> </ul>

