Lesson Plan for: The Life Cycle of Stars

Subject	Earth Science
Unit	Space
Objectives & Outcomes	The students will understand the basic processes that lead a star from one stage of life to another: synthesize a stellar life cycle based on observation
Standards	MS-ESS1-2. Develop and use a model to describe the role of gravity in the motions within galaxies and the solar system. Scientific Knowledge Assumes an Order and Consistency in Natural Systems ▪ Science assumes that objects and events in natural systems occur in consistent patterns that are understandable through measurement and observation. (MS-ESS1-1),(MS-ESS1-2
Materials	Video link: http://www.youtube.com/watch?v=PM9CQDlQI0A Star Life handout
Duration	50 minutes
Teaching	Input: Narrative: did you know stars have life stages, just as humans do? We are about to watch a video and discuss these different life stages of a star. (Play video above.) Modeling and guided practice: Sequence the ages on the human picture worksheet. Then pass out the star sequence worksheet and have students discuss in a group which might come first, second etc. Checking for Understanding and Questioning Strategies: Ask the class as a whole, what was the element that combines in an average star to form a second element? (Answer: the nuclei in Hydrogen atoms fuse together to create Helium and energy is released in Photons~ which is light or electromagnetic energy.)
Closure	What are the big picture concepts we should remember from this lesson? • Stars have life stages and death • Hydrogen atoms fuse together to form Helium, called fussion, resulting in light During a supernova, cosmic rays are released. If you

	have time, you could show this experiment to the students or you could do it yourself if you want! http://video.about.com/physics/How-to-Perform-the-Cosmic-Ray-Detector-Experiment.htm For reading enrichment: hand out the star life reading handout (best printed in color).

Date updated: