**Name** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date \_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_

**Essential Question: What evidence do scientists use to explain the nature and origin of the universe?**

**Directions:** Login to the DE techbook using your Google username and password. Open the Earth and Space Science book to the “Universe” unit, “Stars & Galaxies” chapter. As you read the text and watch any videos under the “EXPLORE” tab, answer each of the following questions:

1. All Stars release huge amounts of energy during their life cycle. What does the energy get released as and where does this energy come from?
2. How are elements formed from stars?
3. Why are the elements Hydrogen, Helium, and Lithium so important?
4. Describe what happens in order for the birth of a star to occur.
5. Explain what happens during the main sequence of a star
6. Do all main sequence stars have similar properties? If not, why?
7. What phase are all stars in ***before*** they begin to die?
8. What determines a stars fate before it dies and how? (Color, temperature, mass, element properties?
9. Stars that have a small mass go from being a red giant to a white dwarf and then to a black dwarf. Describe this process of a small star’s death.

1. What explosion occurs for all stars with larger masses? After this explosion, large stars can either die as a neutron star or a black hole. What is the difference between the two?