**Comparison Diagram of human lifetime and star lifetime** <http://goo.gl/9Gd122>

*Stars and humans share similar phases in their lives. Fill in this diagram to compare them.*

|  |  |  |  |
| --- | --- | --- | --- |
| Protostar | Fusion ignition – Main Sequence | Red Giant/Supergiant | White Dwarf/ Black Hole |
|  |  |  |  |
|  | Infancy through Adulthood | Middle Age | Old Age -Death |
|  |  |  |  |

**Different Phases of a Star**

1. *Watch the following video about a star’s life cycle.* [*http://goo.gl/LUs83t*](http://goo.gl/LUs83t)
2. *Class Demonstration: Star Model*

**Different Phases of Stars (Dependent on Solar Masses)**

|  |  |  |  |
| --- | --- | --- | --- |
| Mass of Star (Solar Masses) | Balloon represent-ing this star | The star’s phases as it progresses through its life cycle (up to 5 stages) | Age of star before it dies (millions of years) |
| 0.4 | Red | Nebula 🡪 Main Sequence 🡪 Red dwarf 🡪 White Dwarf | 500 billion years |
| 1 | Yellow | Nebula 🡪 Main Sequence 🡪 Red Giant 🡪 White Dwarf 🡪 Black Dwarf | 10 billion years |
| 10 | White | Nebula 🡪 Main Sequence 🡪 Red Giant 🡪 Supernova 🡪 Neutron Star | 8 billion years |
| 25 | Blue | Nebula 🡪 Main Sequence 🡪 Red Giant 🡪 Supernova 🡪 Black Hole | 500 million years |

**Results & Conclusion**

1. Create a flow chart for the different phases a star can go through in the space below. Be sure to incorporate the different sized stars and the resulting life phases.
2. What was your favorite star? Why?
3. Explain in a short paragraph what you learned from this activity.