

Stellar Timeline

Putting the life of stars into context

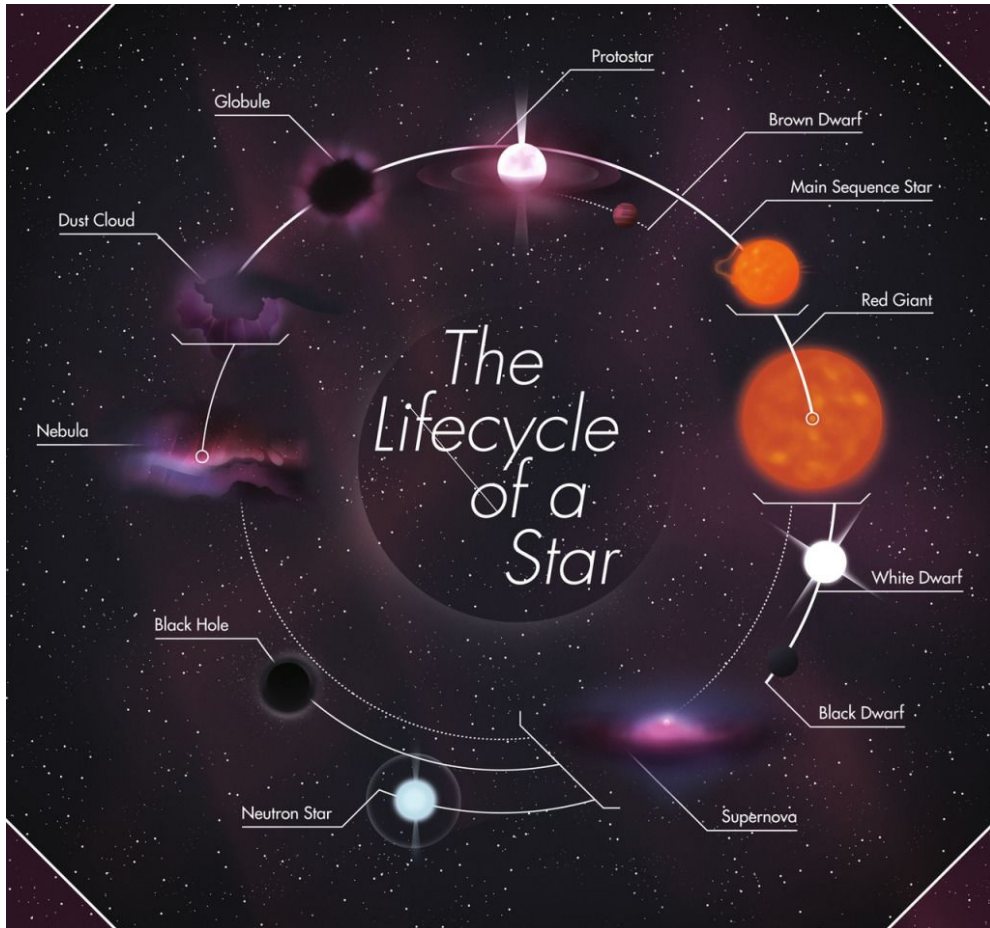


Image: [Jack Hughes](#) /Twitter: [@jackmrhughes](#)

INTRODUCTION

This is an activity designed to give students a sense of time on a Universal scale by exploring the lifespan of stars, the cosmic calendar, and how humans fit into it.

MATERIALS

1. Images in attached .zip file
2. Attached Powerpoint file
3. A chart to record the hypotheses of the picture's order and their changes
4. A strip of paper to use as a larger cosmic timeline

DURATION

45 minutes to an hour

PROCEDURE

1. Students are broken up into groups of three to four
2. Each group is given seven pictures to examine and arrange into a hypothesized timeline of a star's life from birth to death
3. The groups are then walked through each picture with the Powerpoint and allowed to change their hypothesis based on the new information presented.
4. To give the students a temporal sense of scale in the larger scheme of the history of the entire Universe, the groups are given a strip of paper to be divided into 12 sections that represents the history of the Universe compressed into a linear Earth calendar year.
5. Groups then use a pencil to hypothesize where they believe certain cosmic events, from the big bang to advent of humans on Earth, lay on a compressed calendar year scale.
6. The groups are once again given the answers with brief explanations, marking the actual "dates" with marker. When the timeline is complete then the life of stars is put into context, allowing students to visualize how the development of our solar system fits into the bigger story of the Universe.