

*“Is it not almost the same thing, whether we live successively to witness the germination, blooming, fecundity, fading, withering and corruption of a plant, or whether a vast number of specimens, selected from every stage through which the plant passes in the course of its existence, be brought at once to our view” W. Herschel, 1789*

# Introductory Astronomy

Week 5: Stellar Evolution

Clip 1: Herschel’s Garden

# Stars Change

- Main Sequence stars are not eternal
- Stars must form
- What happens after Main Sequence?
- Stars evolve slowly – use population and models to understand evolution
- Clusters form together – compare at same age

# This Week

- Pre-Main Sequence: making stars
- Post-Main Sequence: Giants, Supergiants, Dwarves, Other remnants and Things that Go Boom in the Night
- Fill out HR Diagram
- Find many new phenomena – and some new physics to understand them... pushing limits of knowledge
- Acquire more steps on the [Cosmic Distance Ladder](#)
- **Not:** Cluster formation and dynamics, relativistic neutron stars