## The Stages of a Star's Life Answer Key

## **Correct Sequence**

- 1. Nebula (cloud of gas and dust)
- 2. Protostar (early forming star)
- 3. Main Sequence Star
- 4. Red Giant or Supergiant
- 5. Supernova (for massive stars)
- 6. Neutron Star or Black Hole (for massive stars)
- 7. White Dwarf (for smaller stars)

## **Diagram Outline Filled**

[ B. Nebula ]  $\rightarrow$  [ D. Protostar ]  $\rightarrow$  [ A. Main Sequence Star ]  $\rightarrow$  [ F. Red Giant / Supergiant ]  $\rightarrow$  [ C. Supernova ]  $\rightarrow$  [ G. Neutron Star or Black Hole ]  $\rightarrow$  [ E. White Dwarf\* ]

(\*Note: White Dwarf replaces Supernova/Neutron Star for smaller stars.)

## **Challenge Prompt (Sample Answer)**

The final stage depends on the star's **mass**. Small and medium stars shrink into white dwarfs because they don't have enough mass for a huge explosion.

Massive stars collapse violently into supernovae, leaving behind neutron stars or even black holes.

