Name: Date: Score: / 8

Life Cycle of Stars: Learn and Practice

From nebula to white dwarf or black hole.

Read each question. Circle the best answer.

💡 Life of a Star

- Stars are born in nebulas, giant clouds of gas and dust.
- A star shines by fusing hydrogen into helium in its core.
- How a star ends depends on its mass.
- Sun sized star: red giant: white dwarf

1 What gas is the main fuel of a star like the Sun?

A. Hydrogen B. Oxygen C. Carbon dioxide D. Nitrogen

2 What process makes energy in a star's core?

A. Burning like a campfire B. Static electricity C. Nuclear fusion D. Evaporation

3 What is a nebula?

A. The tail of a comet

B. A cloud of gas and dust in space

C. A very old planet D. A small moon

4 What color are the hottest stars?

A. Orange B. Red C. Blue D. Brown

5 ☁️ Where are stars born?

A. In a nebula B. On a planet C. Inside a comet D. In a black hole

6 What pulls the gas in a nebula together to form a star?

A. Gravity B. Sound C. Magnetism D. Wind

7 What will the Sun become near the end of its life?

A. A neutron star

B. A red giant, then a white dwarf C. A black hole

D. A brand new galaxy

8 💥 What is a supernova?

A. The huge explosion of a massive star

B. A newborn star C. A comet hitting a planet

D. A very bright planet

✏️ Explain it! Write two facts you learned about life cycle of stars.

ANSWER KEY

Life Cycle of Stars: Learn and Practice (answers)

From nebula to white dwarf or black hole.

Read each question. Circle the best answer.

1 What gas is the main fuel of a star like the Sun?

A. Hydrogen B. Oxygen C. Carbon dioxide D. Nitrogen

Stars are made mostly of hydrogen. In the core, hydrogen joins together to make helium and release energy.

2 What process makes energy in a star's core?

A. Burning like a campfire B. Static electricity **C. Nuclear fusion** D. Evaporation

In nuclear fusion, small atoms join to make bigger atoms and release huge amounts of energy.

3 What is a nebula?

A. The tail of a comet

B. A cloud of gas and dust in space

C. A very old planet D. A small moon

A nebula is a giant cloud of gas and dust. Some nebulas are places where new stars form.

4 What color are the hottest stars?

A. Orange B. Red **C. Blue** D. Brown

The hottest stars glow blue. Cooler stars glow orange or red, just like a stove coil changes color as it heats.

5 ☁️ Where are stars born?

A. In a nebula B. On a planet C. Inside a comet D. In a black hole

Stars form inside nebulas, huge clouds of gas and dust in space.

6 What pulls the gas in a nebula together to form a star?

A. Gravity B. Sound C. Magnetism D. Wind

Gravity slowly pulls the gas and dust into a tighter and tighter ball until a star begins to shine.

7 What will the Sun become near the end of its life?

A. A neutron star

B. A red giant, then a white dwarf

C. A black hole D. A brand new galaxy

The Sun is not massive enough to explode. It will swell into a red giant, then shrink to a white dwarf.

8 💥 What is a supernova?

A. The huge explosion of a massive star

B. A newborn star C. A comet hitting a planet D. A very bright planet

When a very massive star runs out of fuel, its core collapses and the star explodes as a supernova.