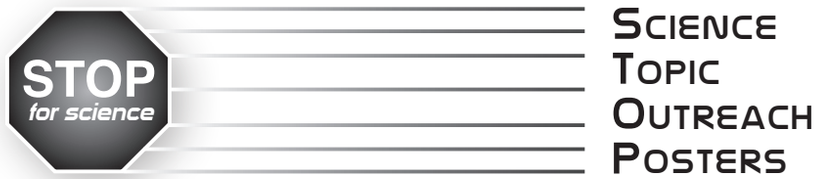
WHEN STARS GO BOOM

Questions • Section 1.2



Name _____ Grade/Class # _____ Name _____ Grade/Class # _____

Level ONE Questions (#1-3)

1. What is the Sun?
   a) a planet b) a moon c) a star d) lightning

2. Which is larger—the Sun or the Earth? _____

3. Can you think of two things that the Sun provides for us?

_____ _____

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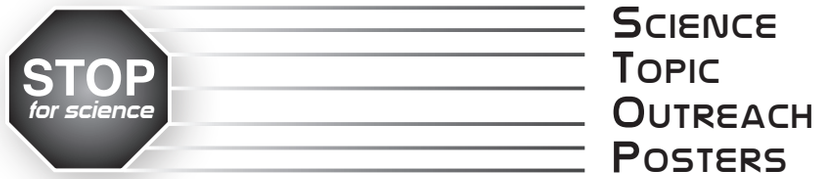

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SCIENCE TOPIC OUTREACH POSTERS

Name _____ Grade/Class # _____ Name _____ Grade/Class # _____

Level TWO Questions (#4-6)

4. What constellation is pictured on this poster? _____

5. A star 10-20 times bigger than the Sun
   a) has a shorter lifespan than the Sun
   b) lives about the same amount of time as the Sun
   c) lives 10-20 times longer than the Sun
   d) will only live 10-20 more years

6. What common force that holds you to the Earth gives a star its energy?

_____

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Questions • Section 1.2

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WHEN STARS GO BOOM

Questions • Section 1.2

STOP for science

SCIENCE TOPIC OUTREACH POSTERS

Name _____ Grade/Class # _____ Name _____ Grade/Class # _____

Level THREE Questions (#7-10)

7. Scientists use many different tools to help them study stars.
   Match the tool with information it provides.

_____ small telescope	a) X-ray images from space
_____ Hubble telescope	b) visual images from Earth
_____ Chandra observatory	c) visual images from space

8. Was the star that exploded and caused the Crab Nebula smaller or larger than our Sun?

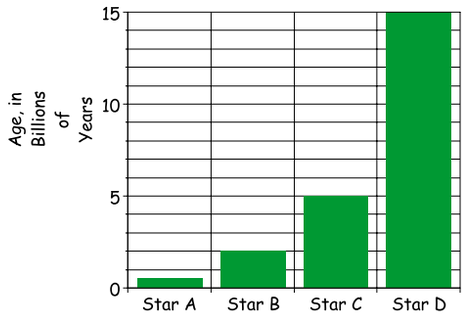
_____

Based on the information presented on the poster, explain how you know.

_____

_____

9. Using the chart at the right, which star could currently represent the Sun? _____



10. Based on studies of rocks, among other things, the Earth is at least 4 billion years old. Planets have also recently been discovered around other stars. Could the star that formed supernova 1987A have had a planet as old as the Earth? Explain how you know this.

_____

_____

_____

WHEN STARS GO BOOM

Answers • Section 1.2

STOP for science

SCIENCE TOPIC OUTREACH POSTERS

Level ONE Answers (#1-3)

1. What is the Sun? **Answer: c) a star**

2. Which is larger—the Sun or the Earth? **Answer: The Sun**

3. Can you think of two things that the Sun provides for us?
   Answers (need two): heat, warmth, light, source of energy

Level TWO Answers (#4-6)

4. What constellation is pictured on this poster? **Answer: Orion**

5. A star 10-20 times bigger than the Sun **Answer: a) has a shorter lifespan than the Sun**

6. What common force that holds you to the Earth gives a star its energy? **Answer: Gravity**

Level THREE Answers (#7-10)

7. Scientists use many different tools to help them study stars.
   Match the tool with information it provides.

__**b**__ small telescope	a) X-ray images from space
__**c**__ Hubble telescope	b) visual images from Earth
__**a**__ Chandra observatory	c) visual images from space

8. Was the star that exploded and caused the Crab Nebula smaller or larger than our Sun?
   Answer: larger

   Based on the information presented on the poster, explain how you know.
   Answer: The poster says massive explosions, supernova explosions, come from stars much larger than ours. The Crab Nebula was formed by a huge explosion, so that star must have been larger than our Sun.

9. Using the chart at the right, which star could currently represent the Sun?
   Answer: Star C. The poster gives the age of the Sun as approximately 5 billion years. The chart shows much younger ages for stars A and B, and a much longer age for star D.

10. Based on studies of rocks, among other things, the Earth is at least 4 billion years old. Planets have also recently been discovered around other stars. Could the star that formed supernova 1987A have had a planet as old as the Earth? Explain how you know this.
    Answer: No, planets as old as the Earth could not have existed around the star that formed SN 1987A. Supernova explosions results from very massive stars, and these live for much less than a billion years.