



# Stars of the Universe

## Comprehension Questions

1. What is our nearest star neighbour? \_\_\_\_\_

2. How far in light years is it to our nearest star neighbour? \_\_\_\_\_

3. What is the correct order in terms of magnitude:

- a) Local Group – Milky Way – Supercluster
- b) Local Group – Supercluster – Milky Way
- c) Milky Way – Local Group – Supercluster
- d) Supercluster – Local Group – Milky Way

4. Most of the stars in the Milky Way are red stars.      True      False

5. According to the Big Bang Theory, the Universe formed from a massive explosion how long ago?

\_\_\_\_\_

6. Which of the following statements are false:

- a) Distant galaxies travel from us at greater speed than closer galaxies
- b) The Big Bang explosion left behind millions of protostars
- c) Protostars are an early stage in the evolution of stars
- d) Stars get energy from atomic reactions between hydrogen atoms in their core
- e) The outer, gas giants (Jupiter, Saturn, Uranus and Neptune) would have become stars had they not been so large

7. Rank the following stars in order of increasing size: the Sun, massive blue star, red dwarf.

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8. Which of these stars is the hottest? \_\_\_\_\_





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9. Could the Sun one day end its life as a supernova? Briefly explain.

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10. A massive blue star has a different evolutionary path to our Sun. Complete the following paragraph about massive blue stars.

After converting all of its core hydrogen into \_\_\_\_\_, other gases are drawn into the core of a massive blue star. Compression causes the core to heat up and the star expands to form a \_\_\_\_\_. New reactions occur, the star becomes layered, and then cools and the outer layers collapse. A supernova follows. At the centre of the supernova is a \_\_\_\_\_ star, which is made up of \_\_\_\_\_ called neutrons. These stars sometimes emit pulsars, which are pulsing \_\_\_\_\_. Sometimes massive blue stars end their life by forming \_\_\_\_\_ from which nothing escapes.

