



1. What does H-R stand for?

Hertzprung-Russell

2. As you move from bottom to top in an H-R diagram, how do stars change?

They get brighter and bigger

3. As you move from left to right in an H-R diagram, how do stars change?

They get cooler and redder

4. If you put all of the stars in the Universe on an H-R diagram, where would 90% of them be located?

In a diagonal line from top left to bottom right.

5. What is the name for the group of stars that form a diagonal line from top left to bottom right?

Main Sequence

6. What is the energy source of all main sequence stars?

~~6.~~ Fusion of hydrogen in the star's core (center)

7. a. Describe the stars in the top right of an H-R diagram.

Red giants and Supergiants

- b. What is their main energy source?

Fusion outside the core

8. a. Describe the stars in the bottom middle of an H-R diagram.

White Dwarfs

- b. What is their energy source?

Compression

9. Where are the blue stars in an H-R diagram?

Top left

10. Where would our Sun be in this H-R diagram? Why?

Middle. It has medium temperature and brightness, and it is fusing hydrogen in its core.

11. In the future, our Sun is going to move to different parts of the diagram. What path will it follow on the diagram, and why?

- When fusion stops in the Sun's core, ~~the~~ it will move to the red giants.
- When all fusion stops, the sun will move from the red giants to the white dwarfs.