

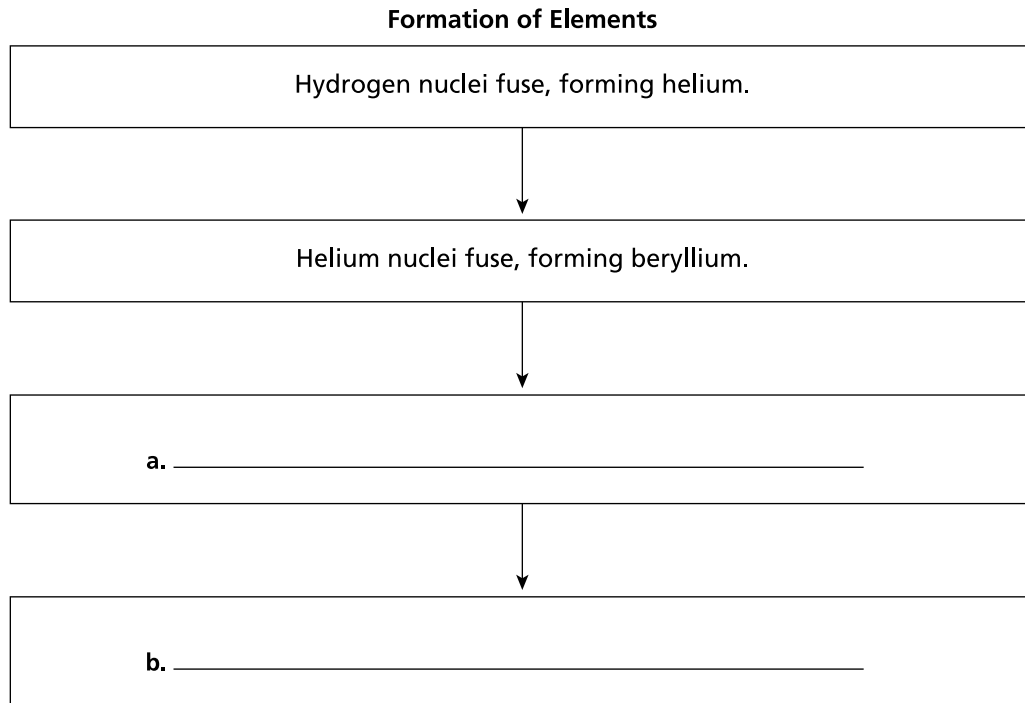
Elements and the Periodic Table ▪ *Guided Reading and Study*

Elements From Stardust

This section explains how elements form inside stars.

Use Target Reading Skills

As you read about how elements are formed in stars, fill in the flowchart to show the steps in the process



How Elements Form in Stars

1. Describe plasma.

2. The process in which two atomic nuclei combine to form a larger nucleus, releasing huge amounts of energy, is called _____.

3. What does nuclear fusion create inside stars?

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4. What is the fuel that powers the sun?

5. Circle the letter of the element that is produced when hydrogen nuclei fuse.

- a. helium
- b. beryllium
- c. carbon
- d. oxygen

6. Two helium nuclei fuse to form a nucleus of _____.

7. What nuclei fuse to form oxygen?

8. Is the following sentence true or false? Stars the size of the sun can produce elements heavier than oxygen. _____

9. What is a nebula and how does it form?

Elements From Large Stars

10. In stars more massive than the sun, fusion continues until the core is almost all _____.

11. What is a supernova?

12. A supernova provides enough energy for the nuclear fusion reactions that create the heaviest _____.