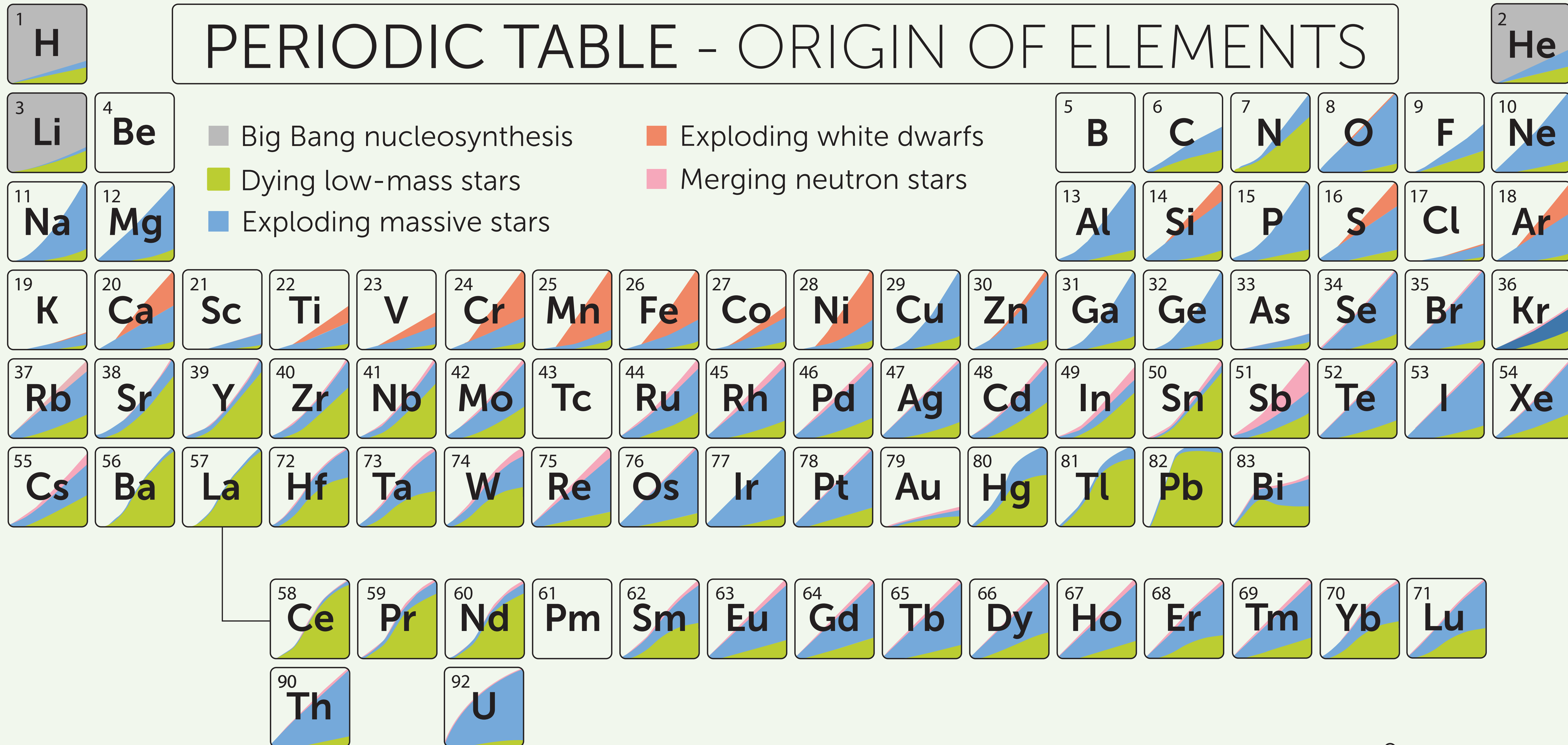
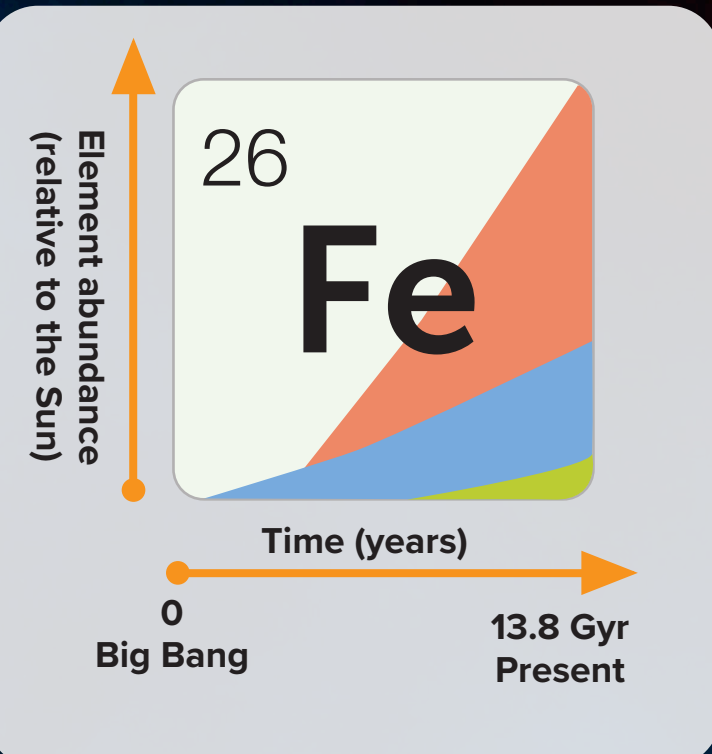


# PERIODIC TABLE - ORIGIN OF ELEMENTS



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## DID YOU NOTICE THAT THESE ELEMENTS ON THE PERIODIC TABLE WERE BLANK?

|                               |                               |
|-------------------------------|-------------------------------|
| 4<br><b>Be</b><br>Beryllium   | 5<br><b>B</b><br>Boron        |
| 43<br><b>Tc</b><br>Technetium | 61<br><b>Pm</b><br>Promethium |

Be and B are stable elements found on Earth. They are generated by cosmic rays, which consist of high-energy particles that travel through space. When these particles hit objects such as atoms, both in space or in the Earth's atmosphere, they form different elements and isotopes. Cosmic rays were not included in the model but were kept in the periodic table for completeness.

Tc and Pm are radioactive elements generated in stars but are not found on Earth. They have such short half-lives that they decay before reaching our solar system.

## MISSING ELEMENTS

These seven elements are found in small quantities on Earth and are generated through the radioactive decay of uranium. They are not included in this periodic table because, in terms of element production in stars, these radioactive heavy elements have decayed to their stable products (Pb, Bi) by the time they make their way into new stars/planets.

|                             |                             |                                 |                             |
|-----------------------------|-----------------------------|---------------------------------|-----------------------------|
| 84<br><b>Po</b><br>Polonium | 85<br><b>At</b><br>Astatine | 86<br><b>Rn</b><br>Radon        | 87<br><b>Fr</b><br>Francium |
| 88<br><b>Ra</b><br>Radium   | 89<br><b>Ac</b><br>Actinium | 91<br><b>Pa</b><br>Protactinium |                             |