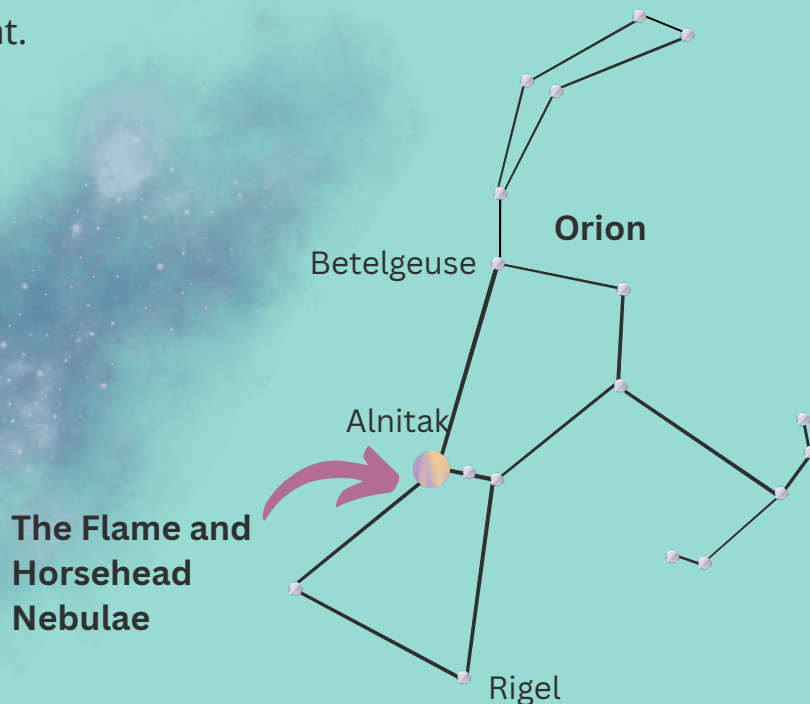


# THE FLAME AND HORSEHEAD NEBULAE - NGC 2024 & B33

Hidden within the famous Belt of Orion, wrapped around the hot blue giant star Alnitak, lie the Flame and Horsehead Nebulae. The Nebulae are huge swathes of star-forming hydrogen gas glowing due to the radiation swirling out of Alnitak (The lower left bright blue star) and Anilam (top middle).

Alnitak is 33 times as massive and 21,000 times brighter than our Sun, which in turn is 333,000 more massive than the Earth. This huge region of hydrogen gas absorbs the energy from this star but cannot hold on it and releases it as light. The different colours can tell us about the different types of gas - hydrogen is red/orange and oxygen is blue-green. Hydrogen is the most basic element in the Universe and therefore the most abundant.



The Nebulae lie 1500 light years away. Although the speed of light is the fastest thing in the Universe, we are still seeing this cloud as it was 1,500 years ago in 526AD.

The shapes are formed from interstellar dust between us and the Nebulae. The Flame effect is caused by the branch-like dark trails of dust whilst the famous Horsehead - like a Knight chess piece - rises proudly up into the glowing hydrogen.