

## SPACE SCOOP

NEWS FROM ACROSS THE UNIVERSE



### Roaring Fire of the Night

Nov. 13, 2013

On 5th November every year, thousands of giant bonfires are lit all across the United Kingdom. This is a tradition to remember the night a man called Guy Fawkes was caught trying to blow up the UK parliament and kill the King, around 400 years ago.

Although the celebration of Guy Fawkes' failure only takes place across the United Kingdom, the entire world can enjoy a similar sight this year! If you use your imagination, you can see a bonfire in this photo of the night sky, something that crosses all borders and is enjoyed by people of every culture! The red cloud plays the role of the roaring bonfire and the blue-white stars are the sparks shooting up from the flames.

In reality, this fantastic red cloud of gas and dust and the young stars scattered around it are all part of a star cluster called NGC 3572. Most stars are not born alone but in clusters, with many siblings born at about the same time, from a single cloud of gas and dust. They are almost the same age, but vary widely in size, mass, temperature and colour.

The lifetime of a star depends greatly on how big it is when it is born. A star fifty times more massive than the Sun will have a life of only a few million years, compared to the Sun, which will live for about ten billion years.

Stars much smaller than the Sun can live for trillions of years—much longer than the current age of our Universe. Because of this, star clusters like NGC 3572 provide astronomers with perfect laboratories for studying stars in various stages of their lives and learning how they evolve.

▲ COOL FACT!

Only around 10% of the cloud from which this cluster was formed will become stars. The rest of the gas and dust will gradually be blown away into space by the strong winds from these bright, hot, young stars.