



## The First Stars in the Universe



The Big Bang that gave birth to our Universe sounds like a spectacular event, an explosion that was unbelievably loud and bright. But the birth of our Universe was probably very subtle.

For a long stretch of time after its birth, our Universe was filled with nothing but hot fog. The first stars didn't spark into existence until the Universe was perhaps 100 million years old. At this time nothing existed in the Universe but gases.

The first stars to exist in our Universe have never been seen because they went extinct a long time ago. But many astronomers have discussed their existence. These stars would have been born out of material created by the Big Bang.

The only chemicals that existed before stars were hydrogen, helium and lithium. This means that the first stars must have been made only out of these chemicals, unlike the Sun and all the other stars in our galaxy.

Using the time-travelling powers of light, astronomers have been scouring the distant Universe, where the light set off when the Universe was much younger, in search of the first stars. And they've just spotted a number of amazingly bright and very young galaxies!

One of these galaxies in particular has scientists excited, it's called CR7. CR7 is the brightest galaxy ever seen in the early Universe.

You can see an artist's version of the galaxy in this picture. The clumps of what looks like fairy dust in the picture are indeed magical – they show that this galaxy was home to some of the Universe's very first stars!

These are the stars that formed the first heavy particles that eventually allowed us to be here. It doesn't really get any more exciting than this!

### COOL FACT

These first stars would have been enormous – several hundred or even a thousand times more massive than the Sun

