



Space Aaaaaages!



It's sometimes hard to grasp the length of time involved in events in the Universe. But the Universe is huge and it has been around for a very long time – 13.7 billion years! That's about three times older than Earth, and it's hard to imagine a time before our planet existed!

These big time scales mean that astronomers can't study something like the lifetime of a star by studying one star, as that would take millions or billions of years! Instead they observe different stars at different stages of their lives.

Sometimes, though, things that are far away in deep space change in the night sky during our lifetime. Take this new space photo, for example. It shows a cloud of glowing gas that is left over from the explosive death of a massive star about 11,000 years ago. Astronomers call an explosion like this a 'supernova'.

The cloud is travelling very fast in space, at a speed of about 650,000 kilometres per hour. Remarkably, even though it is very far away from Earth, it is travelling so quickly that it will change its position in the night sky within a human lifetime. The stars that it appears to be next to in the night sky will be different when you are elderly than the ones it seems to be close to now.

Even after 11,000 years, the supernova explosion is still changing the face of the night sky!

Get involved: Many astronomers keep diaries or logs of their observations. These are great records to refer back to and see if something has changed in the Universe. Why don't you start your own observing log? Even if you don't have a telescope you can make sketches of things that you can see, like the Moon, and special objects, like the occasional comet.



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