

Low and high mass stars

ELYSE I've seen them live.

SOPHIE Lightning Jelly? Uhh! I tried to get tickets but they sold out! My favourite track has to be *Magnetic Custard*.

ELYSE Same! I'm Elyse by the way.

SOPHIE Sophie. So where are you from?

ELYSE Caernarfon.

ADA Analysing... You are from the belly of a star.

ELYSE What's that?

SOPHIE Oh, just this annoying app I downloaded.

ADA The energy of a star is caused by a thermonuclear reaction called fusion. This is caused by atoms being forced together under extreme pressure and temperature to create larger atoms. These larger atoms are forced together too, making larger and larger elements. Whilst this fusion energy within the star is expanding out, the gravitational force outside the star is compressing the star. These two forces push against each other, but at an equal and balanced rate. This balance keeps the star stable.

SOPHIE Seriously Ada, I'm trying to have a conversation here...

ADA The fusion within the star creates new elements - the larger the star, the larger the elements it can create.

During the final stage of a star, the core of a supergiant collapses, and it goes into supernova. This releases the large elements into space. This concept is the basis for all matter in the Universe. We are star dust. Everything is. In fact, it's what happened at the beginning of time itself. The Universe...

Bitesize

SOPHIE Uhhh! Can you hurry this up Ada?

ADA The Universe...

ADA SPEAKS EXTREMELY QUICKLY

...which led two humans to talk in a bus stop.

ELYSE Now that's over, where are you from?

ADA Analysing... You are from the belly of a...