Look around the room you’re in right now. It probably contains lots of objects in different colours and materials. Yet, all of these things are made from the same stuff: chemical elements.

You will already know the names of some chemical elements, such as gold, oxygen and copper. In total, there are only 118 chemical elements. That means that everything in your room – and everything that we can see on Earth – is made up from different amounts of some of these chemical elements. Only 118 chemical elements to make everything!

The same is true for objects in space. There might be some extra chemical elements out there, but astronomers only know about 118 chemical elements so far.

Most chemical elements can only be made inside stars. They are then released into space when stars explode for new stars to use to create more chemical elements. Basically, for each new generation of stars, there are more and more chemical elements available when the stars are formed.

This means that very old stars – like those inside the star cluster shown in this new picture – don’t contain many different chemical elements. They mostly contain only the chemical elements hydrogen and helium. But astronomers have found one strange star in this cluster that contains lots of a chemical element called lithium. Astronomers have no idea how it got there!

New chemical elements are still being discovered. The latest discovery was in 2010, when scientists announced that they had found the weird sounding “ununseptium”. Don’t worry if you don’t know how to say this word correctly – neither do we! 

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