

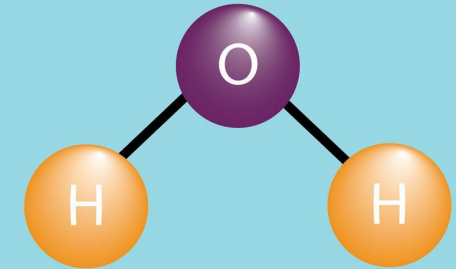
What is the Universe made of?

Atoms & Molecules

Each of the 118 elements in the periodic table is made out of a different kind of atom. A block of Iron is made out of Iron atoms, and hydrogen gas is made out of hydrogen atoms.

You could fit one hundred million atoms lined up into a 1 cm gap.

A molecule is the name for a group of atoms joined together by chemical bonds. Molecules may include a mix of different kinds of atoms, such as CO_2 and H_2O .



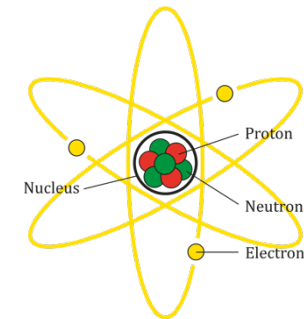
Molecule

Subatomic Particles

Atoms are not the smallest thing in the Universe. They themselves are made up of even smaller things.

The atom has two parts: **The Nucleus**, which is made out of particles called Protons and Neutrons. And **Electrons**, which whizz around the nucleus.

Atoms and subatomic particles make up all the stuff we *see* around us in the Universe, from household dust, to human beings, to planets and stars.



Dark Matter

But what about the stuff we can't see? By looking at the rotation of other galaxies, physicists have discovered an invisible and mysterious form of matter, that we call 'Dark Matter'.

Dark matter doesn't produce or reflect light. It only causes gravitational forces, which is how we know it's there.

The Universe contains more dark matter than ordinary matter. Almost seven times as much dark matter in fact. This is quite concerning to scientists; the majority of the Universe is made out of stuff we know nothing about!



