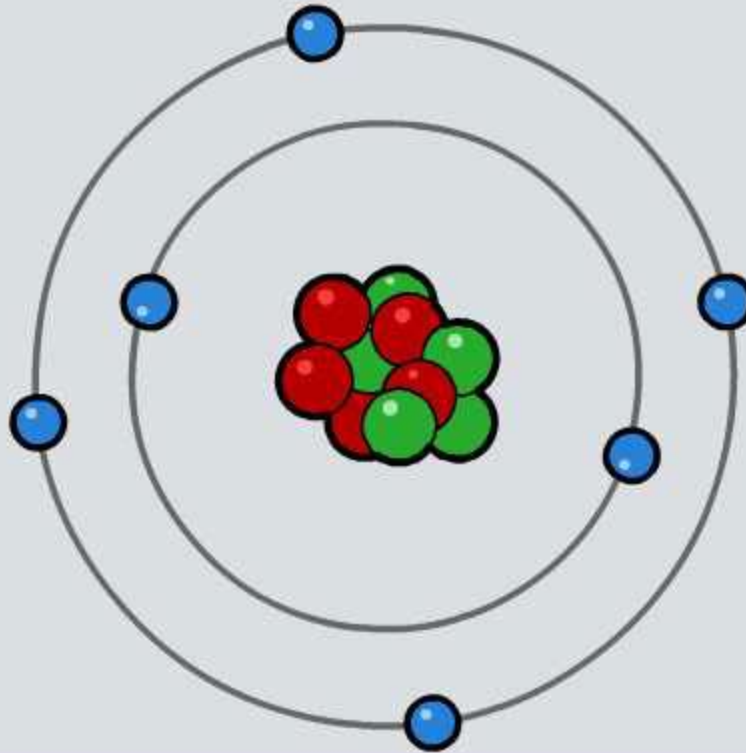


What Are Atoms?



How many different substances?

How many different substances can you think of?



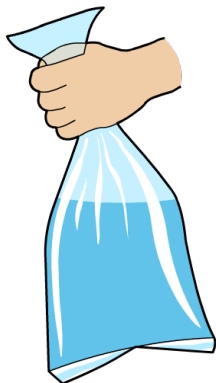
There are **millions** of different substances! What are they all made of?



All substances are made of atoms

All substances are made of tiny particles called **atoms**.

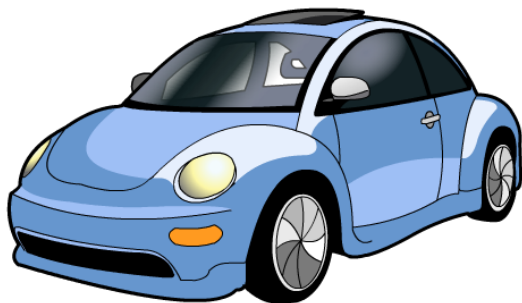
Many substances are made up of **different types** of atoms.



hydrogen and oxygen atoms



carbon and hydrogen atoms



iron, aluminum, silicon,
oxygen and boron atoms



carbon, nitrogen, hydrogen,
oxygen and sulfur atoms










What atoms are you made of?

Atoms are the smallest part of an element. Different elements join together in different ways to make all the materials in the Universe, from rocks to air.

Like all materials in the Universe, humans are made of atoms.

Which atoms do you think are most common in the human body?

These elements are found in most living things.

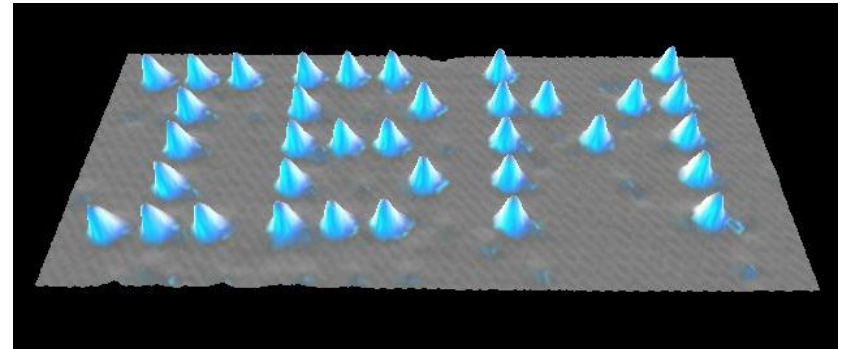
	other (%)
	sulfur (0.25%)
	potassium (0.35%)
	phosphorus (1%)
	calcium (2%)
	nitrogen (3%)
	hydrogen (10%)
	carbon (18%)
	oxygen (65%)



How big are atoms?

Atoms have a diameter of about 0.00000001 cm, which is far too small to be seen with your eyes.

However, microscopes called Scanning Tunneling Microscopes allow scientists to see the outlines of atoms.



In one glass of water there are around:

- 12,000,000,000,000,000,000,000,000 oxygen atoms
- 24,000,000,000,000,000,000,000,000 hydrogen atoms.

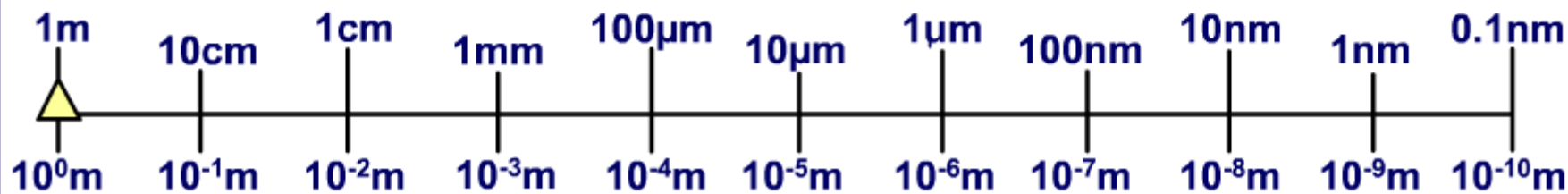


How small is that?

1 m (10^0 m)

A small child is about 1 m high.

That's the same as 1,000,000,000 nm.



What is the history of the atom?

Who were the first people to think about particles and atoms?



Click a date in the timeline below to find out about important discoveries in the history of atomic structure.



400 BC

1803

1905

1907

today

