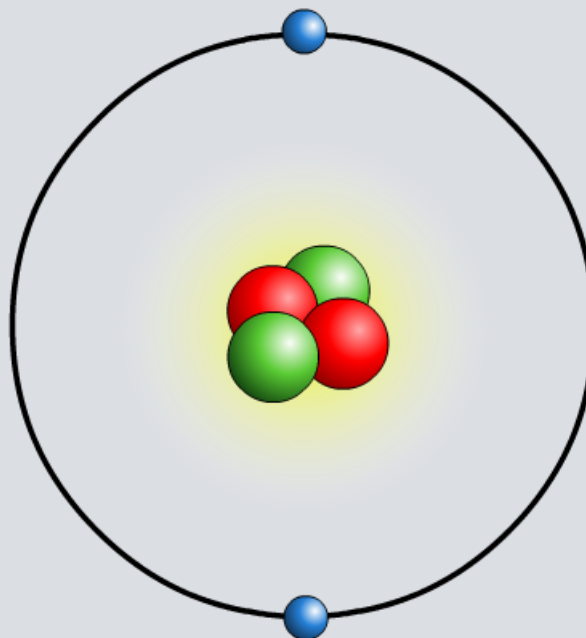


Atomic Structure



What particles are atoms made of?

For some time, people thought that atoms were the smallest particles and could not be broken into anything smaller.

Scientists now know that atoms are actually made from even smaller particles. There are three types:



proton



neutron



electron

How are these particles arranged inside the atom?

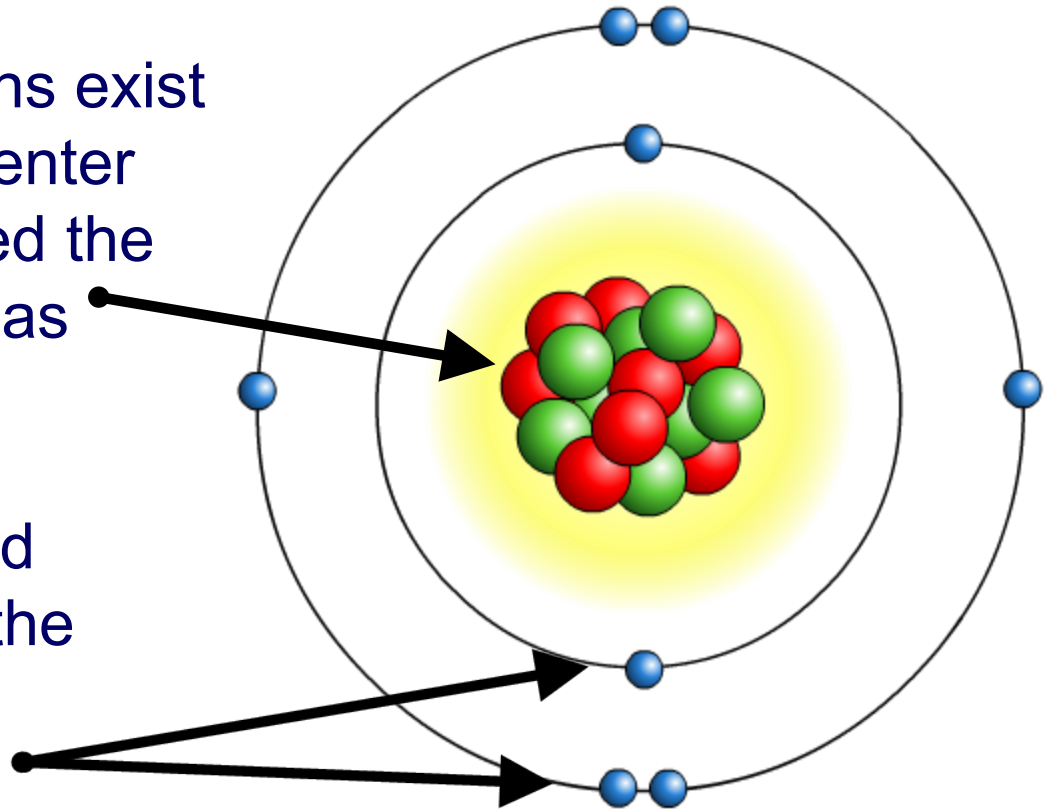


What is the structure of an atom?

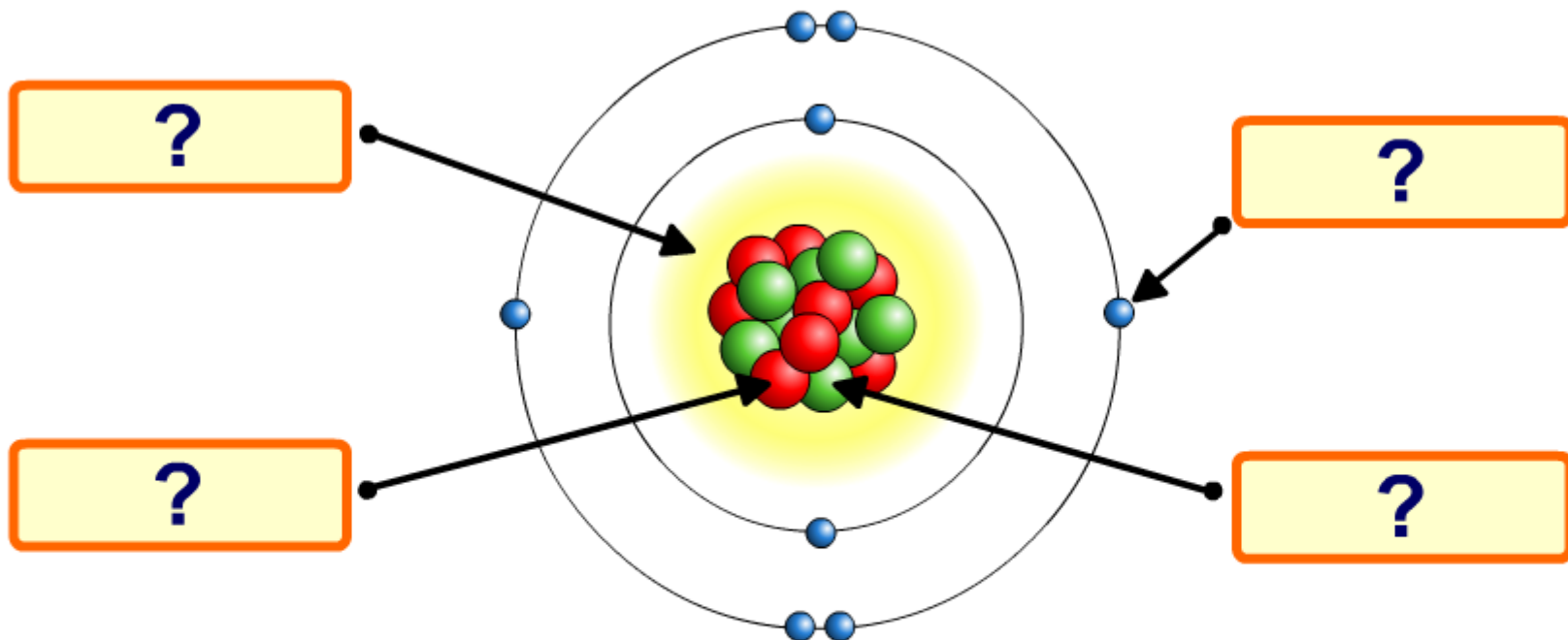
Protons, neutrons and electrons are **not** evenly distributed in an atom.

The protons and neutrons exist in a dense core at the center of the atom. This is called the **nucleus**. The nucleus has a positive charge.

The electrons are spread out around the edge of the atom. They orbit the nucleus in layers called **shells**. Electrons have a negative charge.



What are the parts of the atom?



?

?

?

?

neutron

proton

electron

nucleus

?

C

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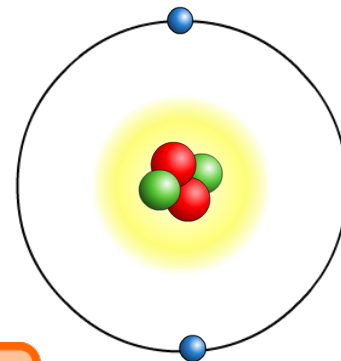
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Mass and electrical charge

There are two properties of protons, neutrons and electrons that are especially important:

- mass
- electrical charge.



Particle	Mass	Charge
proton	1	+1
neutron	1	0
electron	almost 0	-1

The atoms of an element contain equal numbers of protons and electrons and so have no overall charge.

Which do these statements relate to?

protons

neutrons

electrons

positive charge



solve

