

Make Your Own Atom

Materials:

- 1 piece of paper
- 1 piece of sticky putty = strong force
- Fluffy balls (one colour) = protons
- Fluffy balls (another colour) = neutrons
- Small beads = electrons
- Black pipe cleaners = electron orbit

Procedure:

1. Place the piece of paper on your desk.
2. Put the sticky putty in the centre of your paper. Your sticky putty will make the fluffy balls stick together just like the strong force makes protons and neutrons stick together.
3. Stick one “proton” into your sticky putty.
4. Now lay the pipe cleaners around your sticky putty in a circle, to represent the electron shells.
5. Thread one “electron” onto the shell.

At this point you have made a model of the simplest atom. Do you remember what it is?

6. Now add one “proton” and two “neutrons” to the sticky putty.
7. Add one “electron” to the pipe cleaner shell.

Now you have made the second simplest element, Helium. Look at the periodic table. Can you figure out how to make another atom, with a second shell?

Talk in your group – decide which atom to make (choose any element up until Neon), then make it with your supplies. You can ask for more if you need them. Label your paper with the name of the atom and its parts.