

How to make your own molecules

Materials required:

- Dry spaghetti/ cocktail sticks to represent the bonds
- Different coloured sweets/pom pom balls/clay/play dough to represent the atoms

Step by step instructions:

1. Go onto [PubChem \(nih.gov\)](http://pubchem.nih.gov) and search for a compound e.g. aspirin, ibuprofen. Have a look at medication at home and look up the different compounds that make it up.
2. Scroll down to the structure section of the page where you can find the 3D structure of the compound. The pictures on the right are an example of paracetamol.



3. Each colour represents a different atom. The standard colour system:
 - Blue – nitrogen
 - Red – oxygen
 - Grey – carbon
 - White – hydrogen

Use the different coloured materials for the atoms you have available for each different type of atom



4. Put the molecule together, taking care to use the correct amount of bonds based on the diagram



5. Have a look at other compounds that you can find and read more about what they are used for.

To explore this concept further:

- Where can you find these compounds? (e.g. medicine)
- How can you make the model of the molecules stronger?