



Gabby's MISSION: MOLECULE LAB

What is a molecule?

In science, a molecule is just a group of atoms stuck together in a specific pattern. Because atoms are too small to see, teachers and NASA scientists use Gumdrops to represent the atoms and Toothpicks to represent the "bonds" (the invisible force) holding them together.

Here is how you would build one:

The Colors: You pretend the *Red gumdrop is Oxygen* and the *White ones are Hydrogen*.

The Shape: You stick two toothpicks into the Red gumdrop and put a White one on each end.

The Result: You just built a Water Molecule (H_2O)!

Why NASA used them:

Back in the day (especially during the Apollo missions), they didn't have fancy 3D computer software. To figure out how complex chemicals would fit together, engineers would literally sit at their desks with candy and toothpicks to build "life-size" models of the molecules they were studying. It was a cheap, easy way to see the 3D shape of a chemical.

- The Name: Water's "science name" is H_2O
- The Parts: The "H" stands for Hydrogen (your white gumdrops). The "O" stands for Oxygen (your red gumdrop).
- The Shape: It always looks like a V or a Mickey Mouse head. It's never a straight line!

