

CLASS 7 Chemistry: Matter and How It's Made, Introduction to Atoms

Your steadfast love, O Lord, extends to the heavens, your faithfulness to the clouds. Psalm 36:5

1. **True or False?** Air, plants, animals, food, water, automobiles, furniture, etc. are made from small “pieces” of matter called molecules.
2. In the ball-and-stick diagrams, what do the “balls” represent?

Bonds

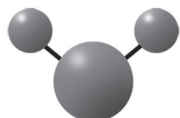
Atoms

Sticks

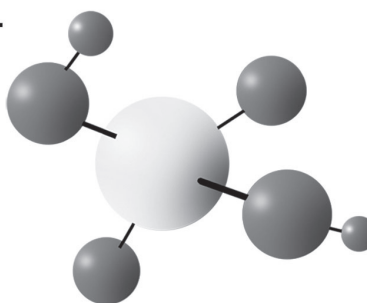
Molecules

3. How many atoms is each molecule below made from?

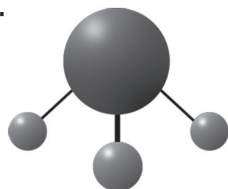
a.



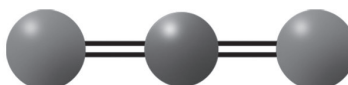
b.



c.



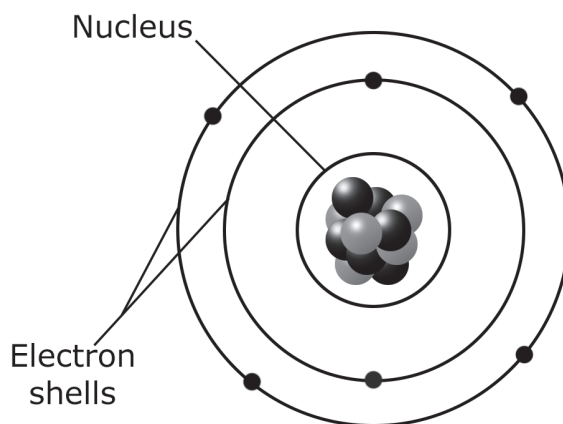
d.



4. Match the abbreviation to the kind of atom.

N	Sulfur
O	Nitrogen
S	Oxygen

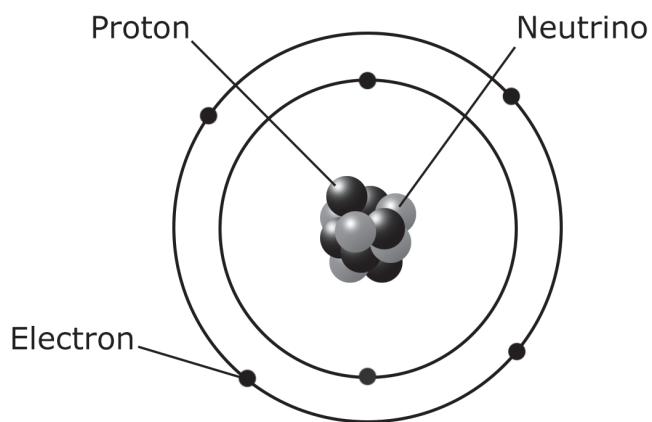
5. How many different kinds of atoms are there?
- a. 68
 - b. 81
 - c. 118
6. **True or False?** Because an atom is so small, it is not made from anything smaller.
7. Choose the correct statements.
- a. Large types of matter—like trees, people, animals and mountains—are not made from tiny types of matter called molecules.
 - b. Even though they are tiny, all atoms are made from even smaller pieces of matter.
 - c. It is how an atom is built that makes one type of atom different from another type.
 - d. By counting the “balls” in a ball and stick model, you can tell how many atoms a molecule contains.
8. **True or False?** The parts of the atom are labeled correctly.



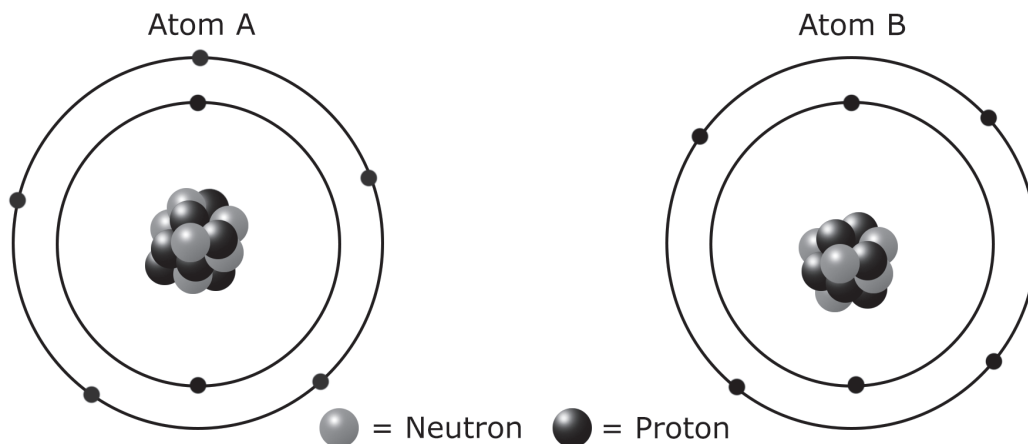
9. Which three particles are atoms built from?

- a. neutrinos
- b. protons
- c. negatrons
- d. electrons
- e. neutrons

10. **True or False?** The image below is labeled correctly.



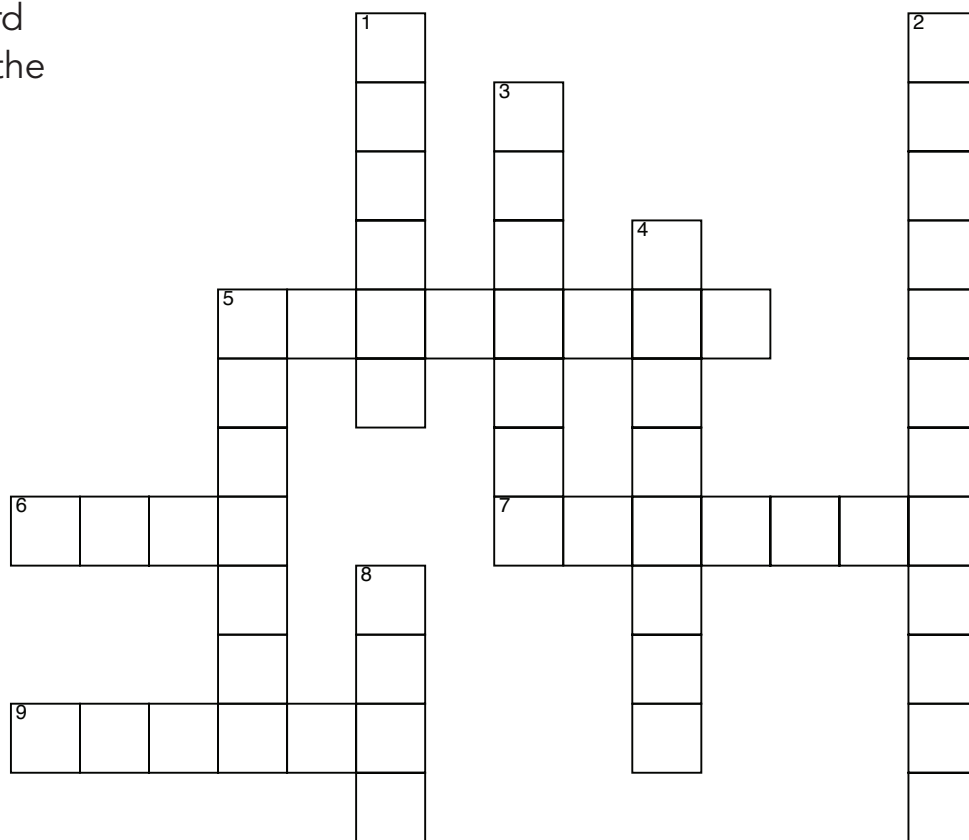
11. **EXTRA CREDIT!!** The two atoms shown below are not the same. Why?



CROSSWORD PUZZLE

Finish the crossword puzzle below using the words provided.

Atom
Ball and Stick
Bond
Electron
Element
Matter
Molecule
Neutron
Nucleus
Proton



ACROSS

5. The particle that whizzes around the outside of an atom's nucleus.
6. The smallest whole unit of matter is a/an _____.
7. Protons and neutrons "live" in the _____ of an atom.
9. One of the types of particles in an atom's nucleus.

DOWN

1. Anything that you can see or feel or that takes up space.
2. A _____ diagram is one way we can use to draw molecules.
3. One of the types of particles in an atom's nucleus.
4. Two or more atoms bond together to form a/an _____.
5. A kind of atom is called a/an _____.
8. The thing in a molecule that holds two atoms together.
9. One of the types of particles in an atom's nucleus.