

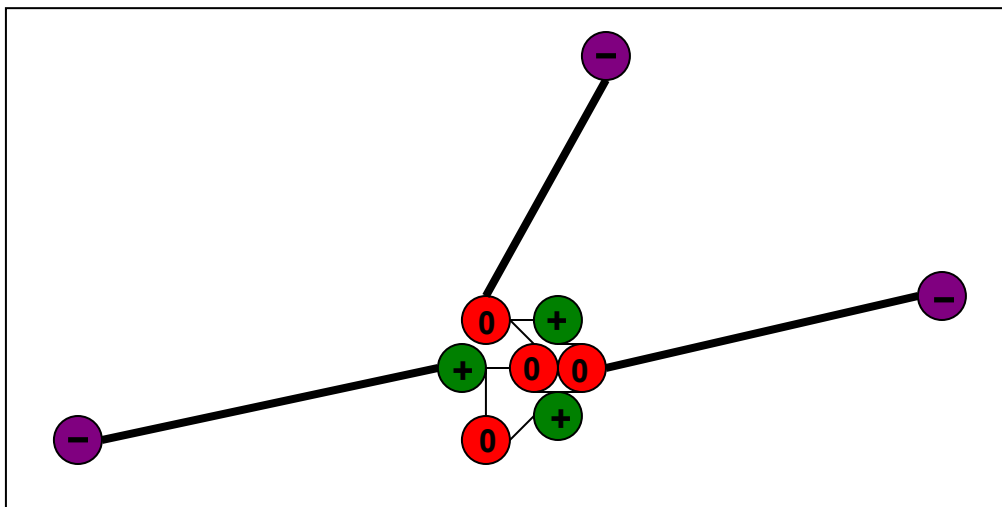
## Gumdrop Atoms Activity – Atoms Worksheet

### Answers

#### Lithium Atom Building Instructions

1. You should start with 4 red gumdrops, 3 green gumdrops, 3 purple/blue/white gumdrops, a bunch of broken toothpicks, 3 wooden skewers, and 10 sticker dots.
2. Draw a “+” sign on three stickers, a “0” on four stickers, and a “-“ sign on three stickers.
3. Stick the plus stickers to the green gumdrops, the minus stickers to the blue gumdrops, and the zero stickers to the red gumdrops.
4. Combine the plus and zero gumdrops with the broken toothpicks to form the nucleus.
5. Attach the minus gumdrops with the skewers to the nucleus.

Your Lithium Atom should look something like this:



1. What are the three parts of an atom?  
**protons, electrons and neutrons**
2. What charge does a proton have? **Positive, +1**
3. What charge does an electron have? **Negative, -1**

4. What charge does a neutron have? **Neutral**
5. What charge (positive, negative, neutral) does the complete atom have?

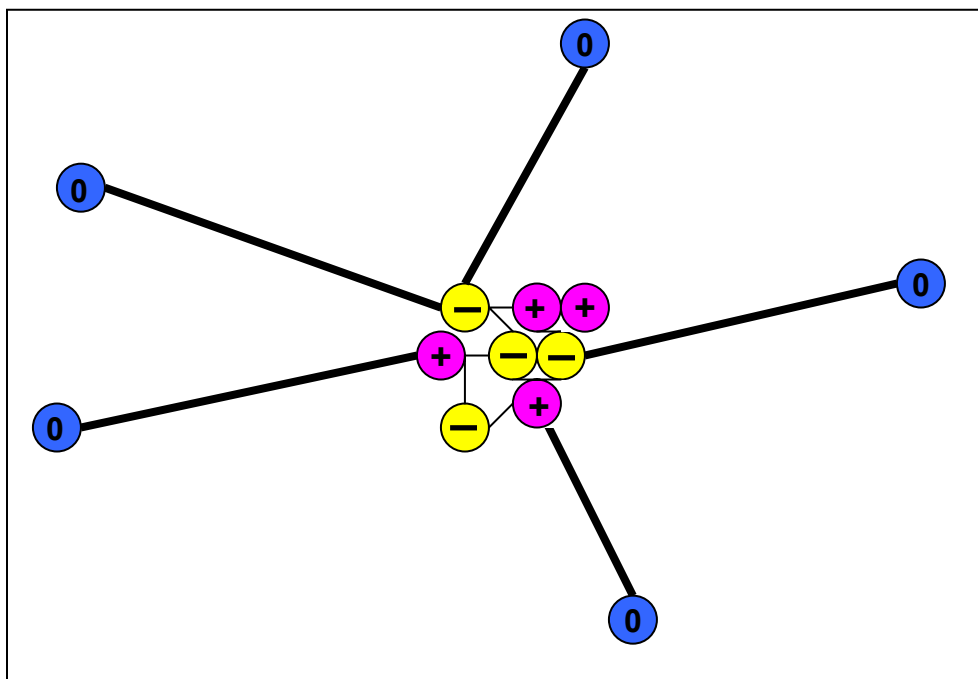
**Neutral. (The complete atom is neutral because each proton is balanced by an electron.)**

6. If one electron (-) is removed, what charge does the atom have?

**Positive or + 1. (There is now one more proton than electron)**

7. The atom below is Beryllium. What charge does it have?

**Negative or -1 (There is one more electron than proton.)**



8. In the above atom, color the protons pink, the neutrons yellow and the electrons blue.
9. What is one example of how engineers use their knowledge of atoms to create new technologies?

**Many answers apply. For example, engineers use their knowledge of the atoms in water to develop technologies to fight air and water pollution; engineers use atoms to create lasers for medicine, industry and consumer products; etc.**