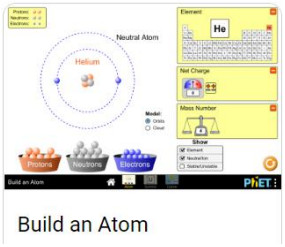
Nada Saab, Ph.D. **PhET simulations: Build an Atom** **WIHS**

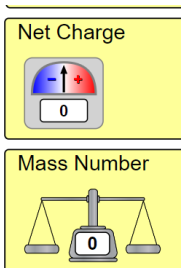


Build an Atom

PART 1.

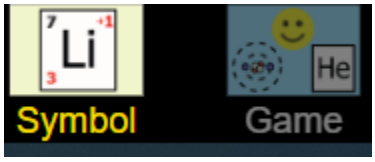
1- Start with blank atom. Add protons to the circle one at a time. Look at the periodic table. Does the element change?
2- Start with blank atom. Add neutrons to the circle one at a time. Look at the periodic table. Does the element change?
3- Start with blank atom. Add electrons to the circle one at a time. Look at the periodic table. Does the element change?
4- Conclusion: identity of an atom in the periodic table is determined by the number of protons, or neutrons or electrons?

PART 2



1- Open Net Charge and Mass Number.
2- Add 3 protons. Record the change in mass and charge.
3- Add 1 electron at a time. Notice the change in mass and charge.
4- Ass 1 neutron at a time. Notice the change in mass and charge.
5- Conclusion: What determines the mass of the atom? What determines the charge on the atom? Complete the table below

PART 3. Work on the other two parts: Symbol and Game.



Complete the table below:

Atom and Symbol	Number of Protons	Number of Neutrons	Number of Electrons	Charge