

ANSWER KEY: BUILD AN ATOM

PART I: ATOM SCREEN

Build an Atom simulation (<http://phet.colorado.edu/en/simulation/build-an-atom>)

1. Explore the *Build an Atom* simulation with your group. As you explore, talk about what you find.
2.
 - a) List two things your group observed in the simulation.
Responses will vary, but here is what you should see....
 - Adding protons changes the identity of the atom - adding one moves from right to left on the Periodic Table.
 - You can get the atom to be stable/unstable by adjusting the number of neutrons
 - Adding electrons will change it from a +ion to neutral atom, to -ion depending on how many electrons you add
 - Adding electrons - you can only add 2 to the first orbital and 8 to the second
 - b) What particle(s) are found in the center of the atom?
Protons and neutrons
3. Play until you discover which **particle(s)** determine(s) the name of the **element** you build. What did you discover?
Protons - adding them moves from left to right on the Periodic Table
4. What is the **name** of the following atoms?
 - a) An atom with 3 protons and 4 neutrons: **Lithium**
 - b) An atom with 2 protons and 4 neutrons: **Helium**
 - c) An atom with 4 protons and 4 neutrons: **Beryllium**
5. Play with the simulation to discover which particles affect the **charge** of an atom or ion.
 - a) Fill in the blanks below to show your results:

Neutral atoms have the same number of protons and electrons.

Positive ions have more protons than electrons.

Negative ions have fewer protons than electrons.
 - b) Develop a relationship (in the form of a single sentence or equation) that can predict the charge based on the number and types of particle.
The charge of an atom is determined by the ratio of protons to electrons.

Build An Atom Worksheet Answers

CH Cherryholmes



Build An Atom Worksheet Answers:

Build An Atom Worksheet Answers Book Review: Unveiling the Power of Words

In a global driven by information and connectivity, the energy of words has been evident than ever. They have the capacity to inspire, provoke, and ignite change. Such could be the essence of the book **Build An Atom Worksheet Answers**, a literary masterpiece that delves deep to the significance of words and their impact on our lives. Published by a renowned author, this captivating work takes readers on a transformative journey, unraveling the secrets and potential behind every word. In this review, we shall explore the book's key themes, examine its writing style, and analyze its overall effect on readers.

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