Matching Pairs
Atomic Models

This activity presents learners with 8 different statements that must be matched by meaning. Learners tap on the statements to select them and then tap on the Check Match button. The order of the statements is randomized. A mis-matched pair restarts the *game* and re-randomizes the order of the statements. The statements are ...

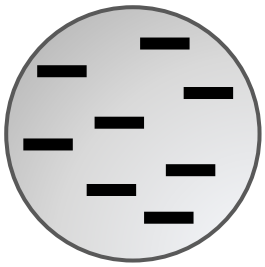
Activity 1: Scientists and Models
Version 1
Negative charges embeded in a uniform sea of positive charge.
Electrons orbit at only certain distances that have a discrete energy level.
Bohr's Quantum Model
Positive charge and atomic mass is concentrated in a central location.
Electrons are in orbitals, regions of space with known energy.
Rutherford's Nuclear Model
Schrodinger's Quantum Mechanical Model
J.J. Thomson's Plum Pudding Model

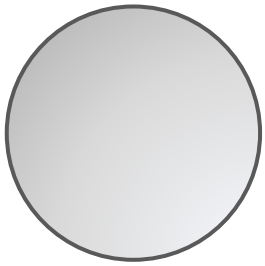
Activity 2: Discoveries and Models
Electrons are located in regions of space that have a precisely known energy.
A magnet deflects a cathode ray beam in a spedific direction.
When bombarded by alpha particles, a gold foil deflects the particles from their path.
Atom contains a densely packed nucleus with + charge.
Electrons in atoms have discrete, quantized energy values.
One cannot simultaneously know both the location and momentum of an object.
The line spectra of hydrogen are explained by electrons changing orbits.
Atoms contain negatively charged particles (i.e., electrons).

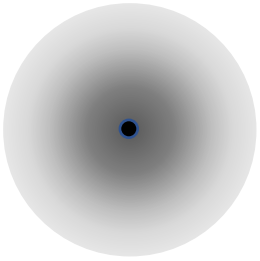
Activity 3: Electrons and Models
Electrons are located in regions of space known as orbitals.
Neils Bohr Model
There are negatively-charged electrons embedded in the atom.
Dalton Model
Electrons are orbitting a nucleus like planets orbit the sun.
Electron? What's an electron?
J.J. Thomson Model
Quantum Mechanical Model

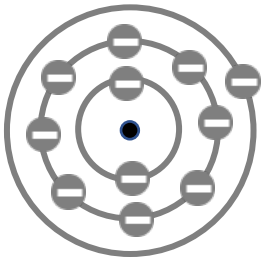
Activity 4: Representation and Scientist/Model

Schrodinger's Quantum Mechanical Model
J.J. Thomson Plum Pudding Model
Dalton Atomic Model
Neils Bohr's Quantum Model









Not Used: