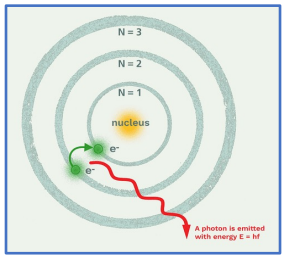
Energy and the Bohr Model of the Atom

Bohr's Model of the atom shows the pathways that electrons travel in the atom. Bohr's model also shows that the *inner electrons* also travel in circular pathways in the center of the atom (*the orbitals*)



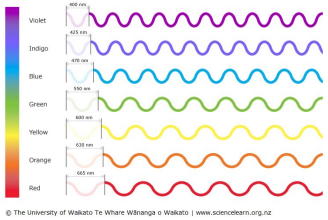
Electrons exist in areas called *energy levels* within the atom.

Energy added to the atom disrupts the placement of the electrons. When energy is added to the atom the electron *jumps* to a higher level. When the electron loses the extra energy *light* energy is produced.

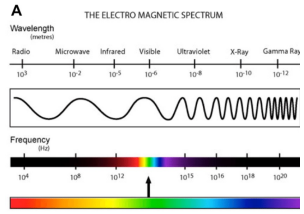
2

Energy and Color of Light

Light travels in wave patterns. The length of the waves determines the type of light. For visible light, the wavelength determines the color.



Visible light is based on wavelength
Red = Longest, Blue = Shortest



Different light sources are based on wavelength and energy

3

Elements and Light

Each element has a different light spectrum, or the colors that the element gives off when energy is added to the atom.

4