Light And Energy

Quantum nature of light

light acts as both a wave and a particle

in the double slit experiments the wave nature of light is revealed.

it has been found that atoms can absorb energy in specific quanta to raises or jump an electron to a new orbit. When the electron falls back to its original position it releases energy as a photon with a specific energy.

the energy of a photon can be determined by it's wavelength, a shorter wavelength will have more energy. Blue light has more energy that that of red light.

$$E = hf$$

Planks constant $= 6.63 \times 10^{-34} J \cdot s$