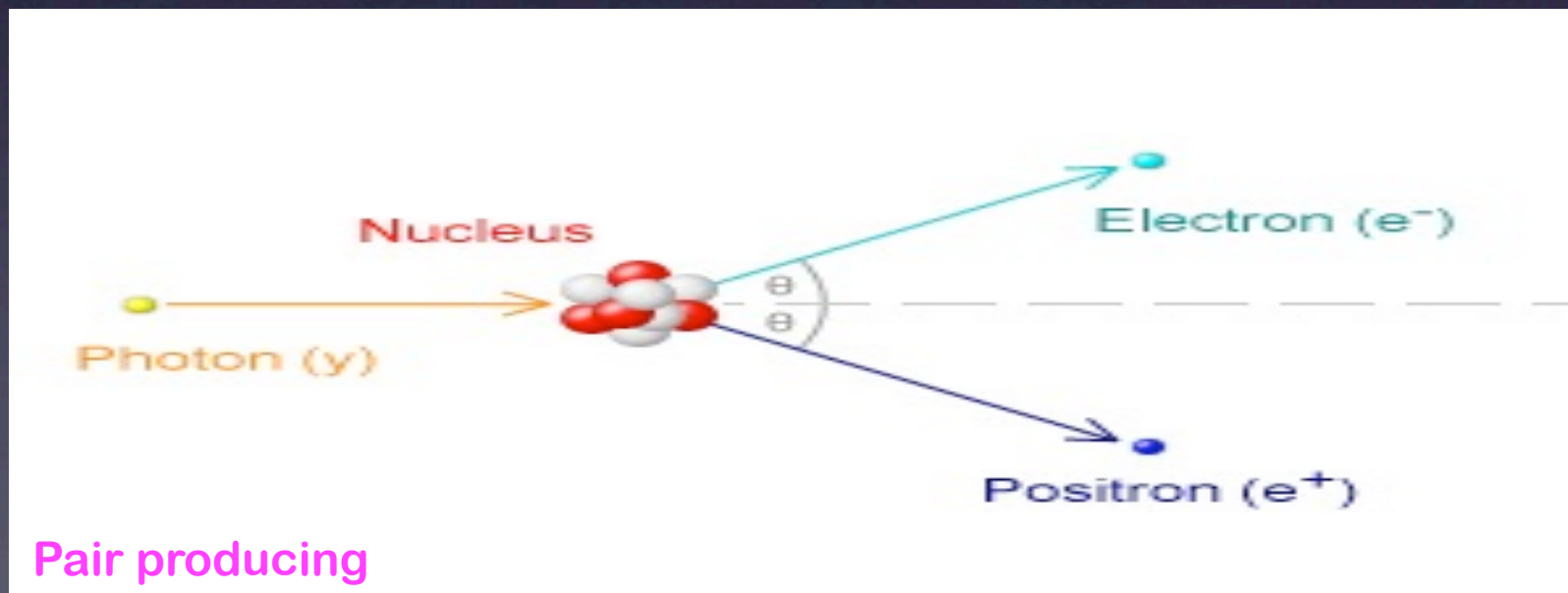
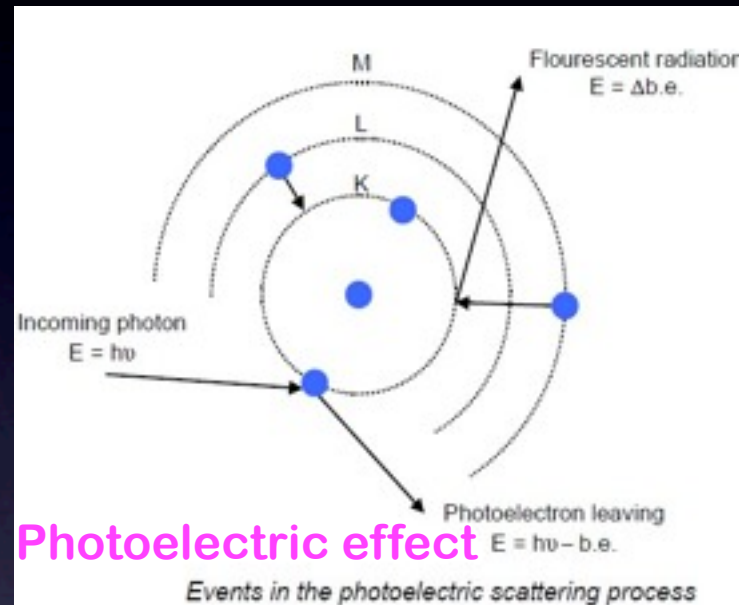
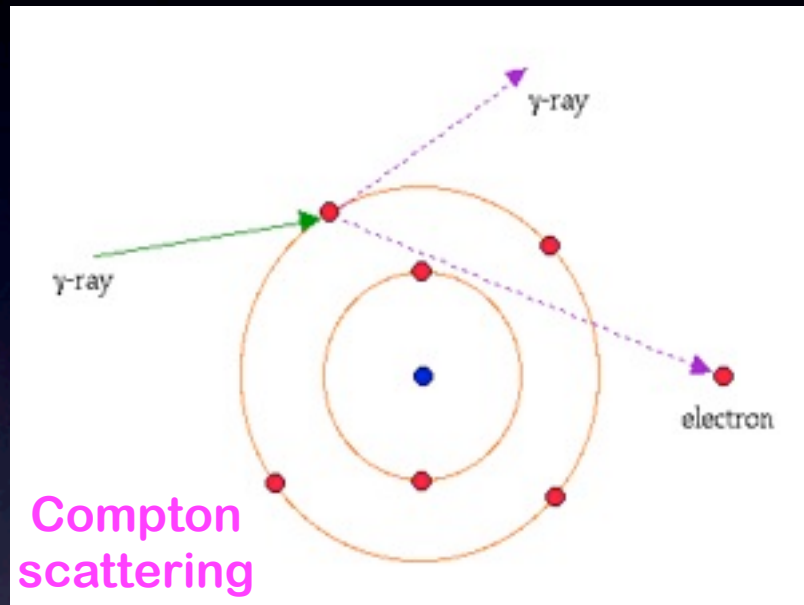


# X ray:interaction w/matter



Ask Mish



- All 5 types photon interaction w/matter
- Compton scattering and photoelectric effect is important for radiologic diagnostic or in radiologic imaging
- Pair production and photonuclear disintegration is important for radiologic therapy by destroying matter's structure
- Compton effect : photons of X ray hit e of outer shell, exchanging E; both photon now w/ less E and hit electron scatter in different angles. This scattered photon w/changed direction will produce the grey fuzzy effect on radiologic image
- Photoelectric effect is predominant in atoms w/ big Z value e.g. Ca and contrast. The photon is absorbed. The effect will appear white on radiologic image.