

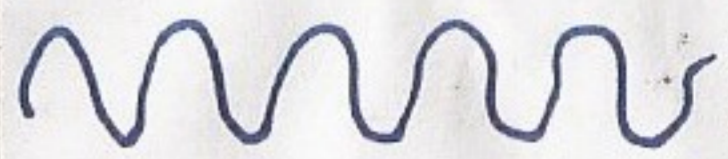


# Atomic Physics.

Type of radiation.	alpha particles ( $\alpha$ )	beta particles ( $\beta$ )	gamma rays ( $\gamma$ )
	${}^4_2\text{He}$  <p>alpha particles are identical to a helium nucleus</p>	${}^0_{-1}\beta$  <p>each particle is an electron</p>	 <p>electromagnetic waves</p>
relative charge	+2	-1	0
mass	high	low	-
speed	0.1 x speed of light	0.9 x speed of light	speed of light
ionizing effect	strong	weak	very weak
Penetrating effect	stopped by paper or skin	stopped by aluminium or other metal	never completely stopped. Thick lead & concrete reduce intensity
effects of fields	deflected by magnetic & electric fields	deflected by magnetic & electric fields	not deflected.

