Radioactive Decay Processes

Radioactivity is a natural aspect of matter, present in low levels almost everywhere. It is dangerous in high levels. Radiation is form of high energy particle that cause ionization of molecules it comes in contact with (ionizing radiation).

Alpha Decay: produces a helium nucleus

The nucleus is high energy and travels at about 1% the speed of light.

Has a penetrating ability of about one piece of paper

Beta Particle Decay: high energy electon, travel at
about 10% the speed of light

Has a penetrating ability of about 1 cm of water.

<u>Gamma Deacy:</u> high energy and dangerous form of light, travels at the speed of light. Frequently accompanies another radioactive process.

Penetrating ability is about 1 cm of lead or 1 foot of good concrete.