

### Half Life : When will materials decay?

- can't predict when 1 atom will decay. But we can predict when  $\frac{1}{2}$  a sample will decay. Iodine 131 has  $\frac{1}{2}$  life of 8 min!
- Carbon 14 (C-14) is in our environment. C-12 is stable. C-14 has a  $\frac{1}{2}$  life – 5730 years!
- C-14 is absorbed into organic material.
- We know how much C-14 in environment. It starts to decay when organism dies. Looking at how much C-14 (and knowing  $\frac{1}{2}$  life) we can estimate age.