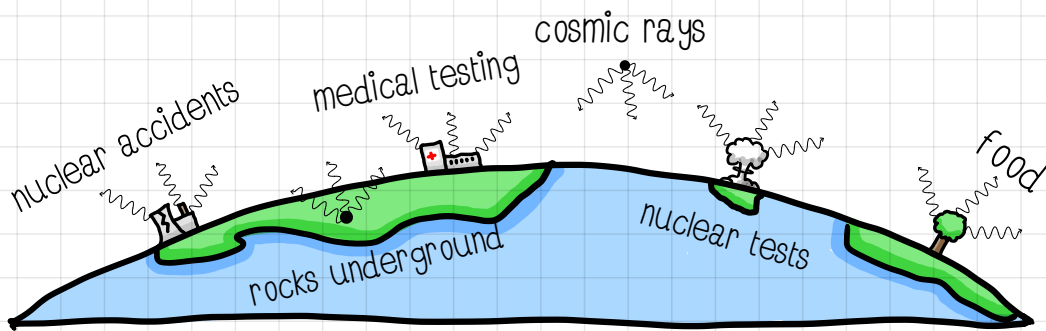


Background radiation

Sources of background radiation



Background radiation is present all around us. It is usually low level, but this depends on the location of an individual and the occupation they follow. For example, if you live in Cornwall the background radiation is much higher due to radon found in granite.



Background radiation sources can either be natural or man made. The highest levels of background radiation are due to natural sources (88%).



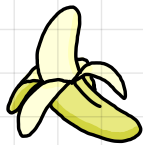
Natural sources: Rocks (radon gas) and cosmic rays
Man-made sources: Nuclear accidents and nuclear testing

Radiation exposure



Scientists measure radiation doses using Sieverts (Sv). As the doses received are usually below 1 Sv, values are quoted in millisieverts (mSv).
 $1 \text{ Sv} = 1000 \text{ mSv}$

Common doses



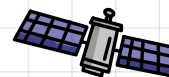
Eating a banana:
0.000098 mSv

100 000 000 bananas



Airline cabin crew (per year):
1.6 mSv

6 250 years



Space station (6 months):
80mSv

63 years



Worker at Fukushima disaster:
670 mSv

15 doses



Fatal dose: 10 000 mSv