

12 How can X-rays be used to make images?



Picture taken from x-ray.camera

X-rays pass through materials of lower density but are absorbed by ones of higher density



X-rays are waves, rather like light, but they are much more penetrating. Light can't pass through the human body, but X-rays can. To be more accurate, they can pass through soft tissue.

This makes them very useful. If you had a suspected fracture to a bone in your hand, the doctor may well decide to have an X-ray taken. X-rays would be focused on your hand and some of them would pass through. Others wouldn't though, because they would be stopped by the bones. The rays that get through turn the film dark but where they can't get through, they leave it clear. This results in a very clear image showing exactly where the damage is.

This same technology can be used with luggage; the X-rays will pass through items like clothing but would be stopped by a metal object such as a gun. It's a very quick and accurate way of seeing what's inside a suitcase.