

Follow along worksheet for

## Applications of Particle Accelerators by Prof. Rob Edgecock

- 00:01:20            **1.**            % of radial tires use a particle accelerator during the manufacturing process.
- 00:02:00            **2.** An            beam is used to create links between the polymer chains.
- 00:03:50            **3.** Implanting            into a material can change its properties.
- 00:04:50            **4.** There are more than            ion implantation accelerators in the UK.
- 00:06:20            **5.** Electron linacs used to create x-rays for radiotherapy are usually just over            long.
- 00:07:30            **6.** A multileaf collimator (usually made of tungsten) is used to            the beam, by absorbing unwanted x-rays.
- 00:09:10            **7.** Around            % of the world population have roundworm.
- 00:11:20            **8.** Up until recently roughly            % of the sludge was disposed of in the sea in the UK.
- 00:12:10            **9.** In anaerobic digestion bacteria in the absence of            is used to break down organic matter.
- 00:14:00            **10.** Treating the sludge before anaerobic digestion, breaks it down, making it more