

Practice and Revision - Nuclear Energy and Nuclear Weapons

Chapter 11: Nuclear Energy and Nuclear Weapons · Topic 2

Key Concept

Nuclear energy is produced through nuclear fission, splitting atoms to release enormous amounts of energy, used for generating electricity.

Nuclear weapons, developed during World War II, use similar principles but for destructive purposes, first used on Hiroshima and Nagasaki in 1945.

International efforts, like the Nuclear Non-Proliferation Treaty (NPT), aim to prevent the spread of nuclear weapons while allowing peaceful nuclear energy use.

Understanding nuclear energy and weapons helps us appreciate both the benefits and serious risks associated with this powerful technology.

Quick Revision Notes

- Nuclear energy uses nuclear fission.
- This splits atoms to release energy.
- It's used for electricity generation.
- Nuclear weapons were developed during WWII.
- They were first used on Hiroshima and Nagasaki (1945).
- The NPT aims to prevent weapon spread.
- It allows peaceful nuclear energy use.
- Understanding this shows both benefits and risks.

Practice Questions

- 1 Research nuclear fission and how it works.
- 2 Discuss the historical use of nuclear weapons in 1945.
- 3 Research the Nuclear Non-Proliferation Treaty.
- 4 Explain the benefits of nuclear energy for electricity.
- 5 Discuss the risks of nuclear weapons.
- 6 Debate the balance between nuclear energy benefits and risks.