

P2 Radioactivity Quiz

1. Name one man-made source of background radiation.
2. What are isotopes?
3. What is the plum pudding model of an atom?
4. What did the gold foil experiment reveal about the atomic structure?
5. Define half-life.
6. What type of radioactive isotope would be most suitable for irradiating food?
7. Why are some people worried about eating irradiated foods?
8. Why does beta decay not cause a change in mass number?
9. What is alpha decay?
10. Which type of radiation should be used to control the thickness of aluminium sheets?
11. Define radioactive.
12. Alpha particles are unlikely to cause harm outside the body but are likely to kill if inside the body. Why?

13. How does a smoke detector work?
14. Which two types of radiation would pass through a sheet of card?
15. Which two types of radiation would be deflected by an electric field?
16. Which type of radiation has the greatest range in air?
17. Give two reasons to justify the use of nuclear power stations.
18. Which type of radioactive isotope would a doctor inject into a patient's bloodstream?
19. What is used inside a badge that monitors radiation?
20. What makes thorium and uranium different elements?
21. What is a beta particle?
22. Why are people worried about radioactive waste that is buried underground?
23. How does fission of uranium nuclei take place in nuclear reactors?
24. What is the role of control rods inside a nuclear reactor?
25. List natural sources of background radiation.

26. How do you stop gamma rays?

27. How do you stop beta particles?