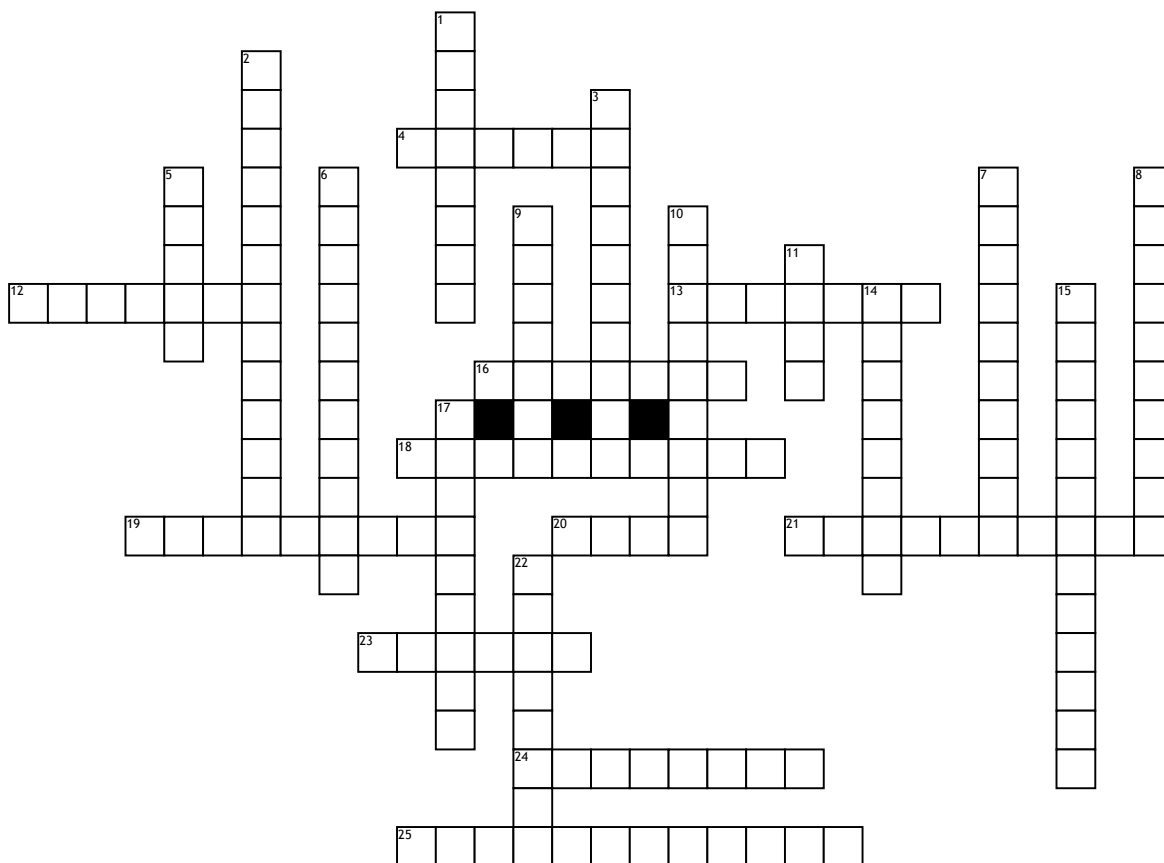


Name: _____

Date: _____

Radioactivity quiz



Across

4. Potentially a useful isotope to investigate thyroid disease
12. often radioactive in Cornwall
13. name given to slowed down neutrons in fission reactor
16. converts linear KE into rotational KE
18. can exist in a useful metastable state that only emits gamma rays
19. used to slow down fission neutrons
20. also emitted after electron capture
21. provided first evidence for the existence of the nucleus
23. unusually stable, for a small mass nuclide
24. emitted after electron capture
25. needs to be exceeded to maintain a chain reaction

Down

1. favorite of the Russian secret services
2. law which all nuclear radiation obeys providing the source is a point, energy is radiated in all directions, and there is minimal energy absorption
3. an excited state of the nucleus that lasts long enough after alpha or beta
5. an old unit of measurement for radioactivity
6. type of change in which the rate of change of quantity is proportional to the quantity amount
7. component of a gamma camera necessary to locate the emission origin
8. may need to be taken into account when measuring nuclear radiation
9. largest stable nuclide

10. Joules per second per squared metre
11. most stable nuclide
14. number of nuclear disintegrations per second
15. probability of an individual nucleus decaying per second
17. particle wavelength
22. non-technical term for shape of fusion reactor