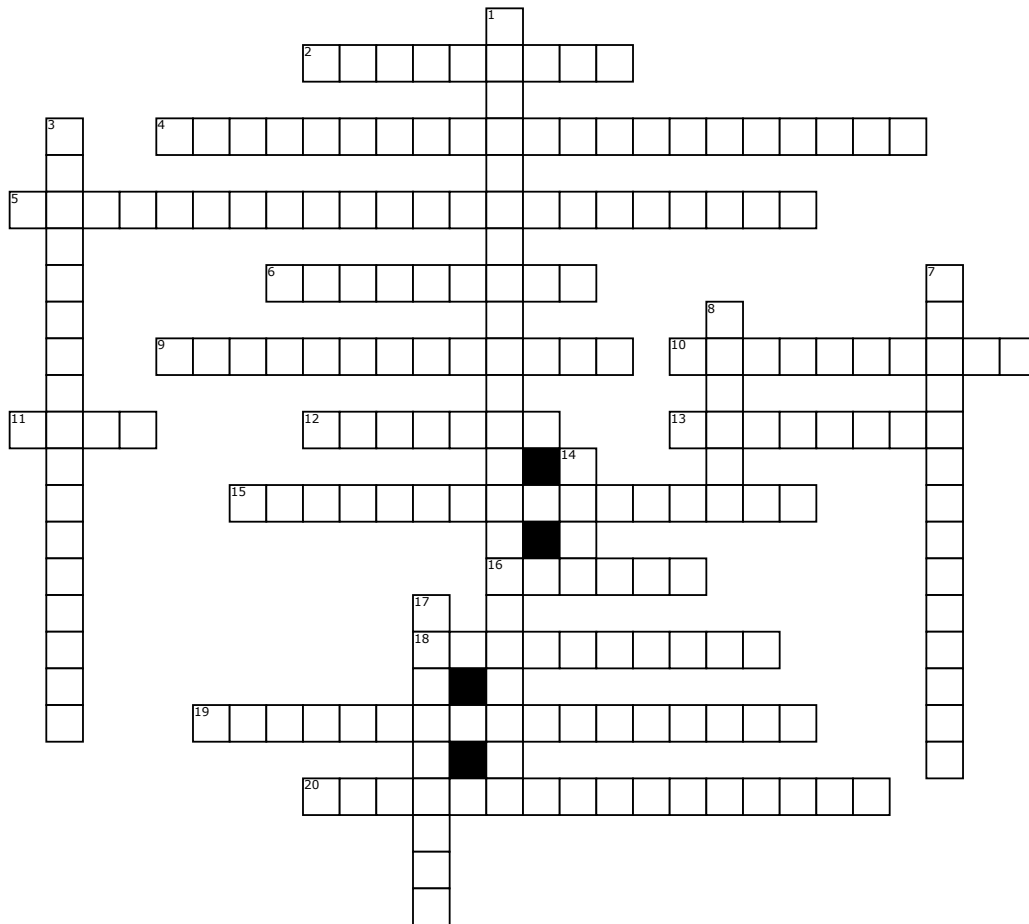


Name: \_\_\_\_\_

Date: \_\_\_\_\_

# Nuclear Energy



## Across

2. SI unit for radioactivity

4. The average exposure in the United States, from natural sources of radiation

5. amount of radiation you get from a phone.

6. radioactive decay in which an electron is emitted.

9. the energy released during nuclear fission or fusion, especially when used to generate electricity.

10. type of radioactivity in which some unstable atomic nuclei dissipate excess energy by a spontaneous electromagnetic process

11. SI unit for absorbed dose

12. SI unit for dose equivalent

13. the time taken for the radioactivity of a specified isotope to fall to half its original value.

15. type of cancer treatment that uses beams of intense energy to kill cancer cells.

16. explains nuclear fusion, how matter can be destroyed and converted to energy and energy can be converted back to mass. "Energy equals mass times the speed of light squared"

18. type of radioactive decay in which an atomic nucleus emits an alpha particle (helium nucleus) and thereby transforms or 'decays' into a different atomic nucleus,

19. , there have been at least accidents at nuclear reactors in the United States

20. On average, how much radiation do Americans receive in a year

## Down

1. closest nuclear power plant in Ohio

3. is radiation that carries enough energy to detach electrons from atoms or molecules

7. a nuclear reaction in which a heavy nucleus splits spontaneously or on impact with another particle, with the release of energy.

8. a fruit that is radio active

14. s the smallest particle into which an element can be divided without losing its chemical identity.

17. the emission of energy as electromagnetic waves or as moving subatomic particles, especially high-energy particles which cause ionization.

## Word Bank

sievert

gamma decay

fifty six accidents

radiation

sixty two milirems

radiation therapy

one point fifty nine watts

becquerel

nuclear fission

Perry Nuclear Power Plant

three hundred millirems

gray

ionizing radiation

half-life

atom

beta decay

alpha decay

Nuclear energy

$E=mc^2$

banana