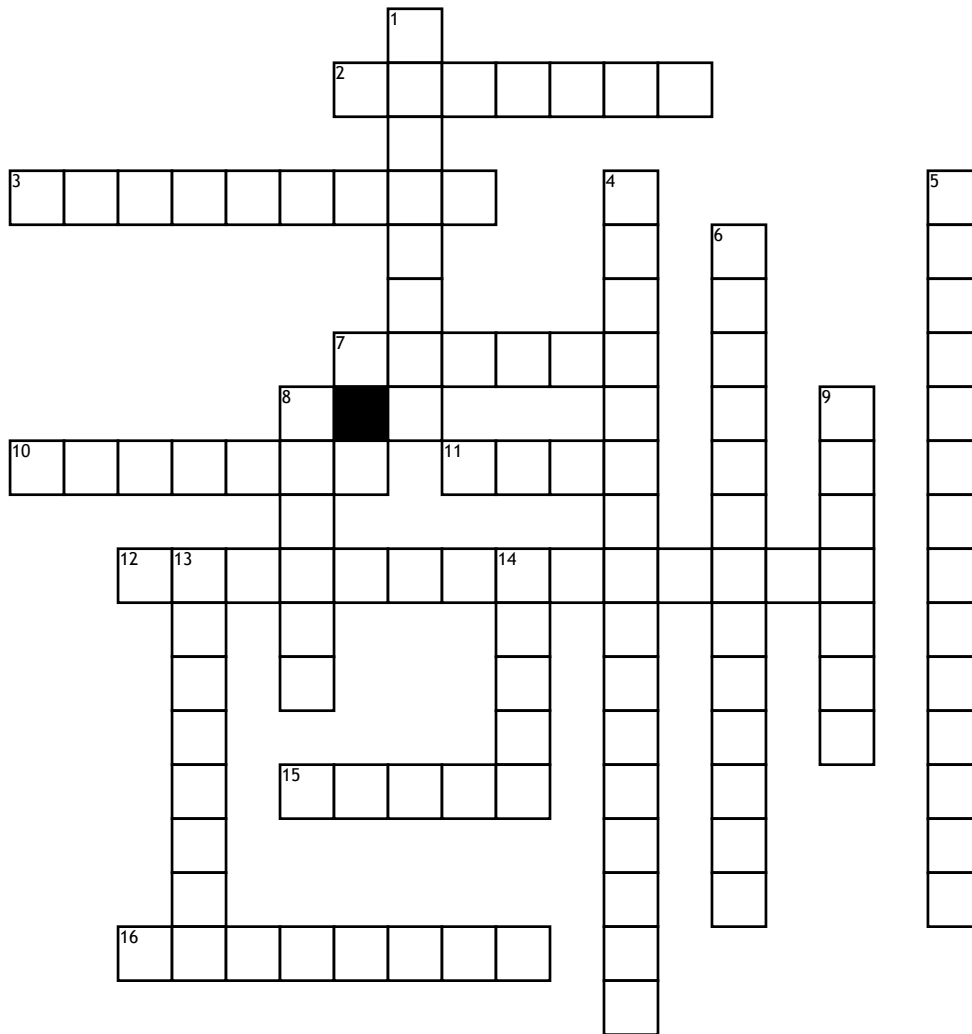


Name: \_\_\_\_\_

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

# Nuclear Project



## Across

2. \_\_\_\_\_ are positively charged particles that live in the Nucleus.  
 3. \_\_\_\_\_ are particles that surround the Nucleus and have a negative charge.  
 7. The plural form of Nucleus is \_\_\_\_\_.  
 10. The center of an atom is called the \_\_\_\_\_ which holds Protons and Neutrons.  
 11. One of the 3 types of radioactive decay where the atom loses an electron.  
 12. A series of reactions are called \_\_\_\_\_.

15. One of the 3 types of radioactive decay where the atom loses high energy.  
 16. \_\_\_\_\_ are particles that are charged as 0 and live in the Nucleus.

## Down

1. The most unstable element on the periodic table is \_\_\_\_\_.  
 4. \_\_\_\_\_ is the process where a nucleus loses energy by releasing radiation.  
 5. When there are too many Neutrons or Protons, this upsets the balance making it an \_\_\_\_\_.  
 6. A radioactive process where a nucleus transforms into one or more different nuclei (loses electrons).

8. \_\_\_\_\_ is when 2 nuclei combine to form one nucleus with the release of energy (it powers the sun and stars).

9. \_\_\_\_\_ is the act of splitting the nucleus of an atom which releases energy.  
 13. The time required to reduce to half its initial value. Commonly used to describe how quickly unstable atoms decay (symbol  $t_{1/2}$ ).  
 14. One of the 3 types of radioactive decay where the atom loses 2 Protons and 2 Neutrons.

## Word Bank

Alpha	Unstable Nuclei	chain reactions	Gamma
Protons	Neutrons	half-time	Nucleus
Fission	Francium	Decay Constant	Nuclei
Radioactive Decay	Beta	Electrons	Fusion