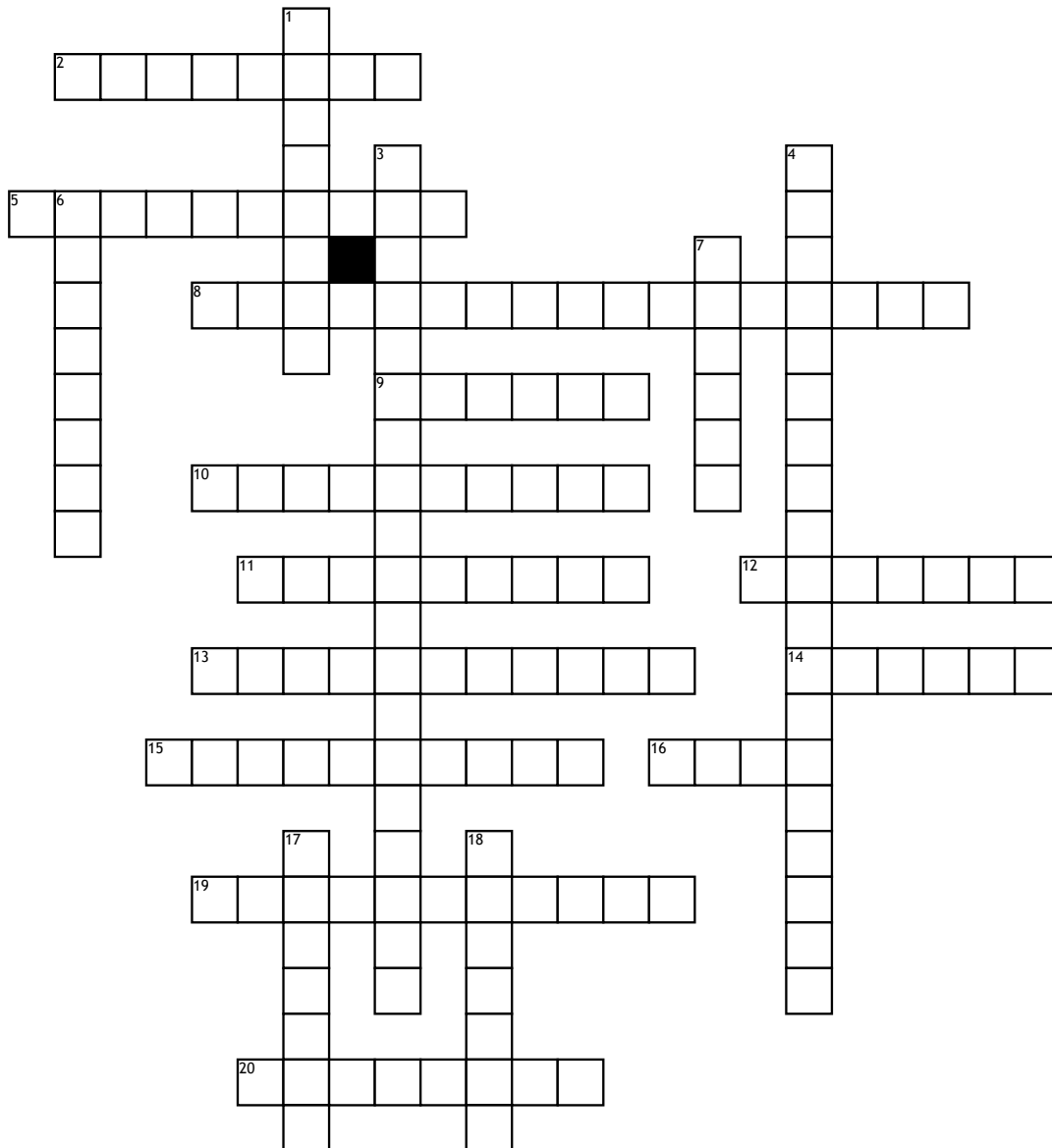


# Atomic Theory Project



## Across

2. Discovered neutron  
 5. First discovered atom  
 8. Planck, de Broglie, Schrodinger, Heisenberg all contributed to the modern model of the atom  
 9. Published Law of Definite Proportions  
 10. Stated that it was impossible to determine the position and velocity of an electron at the same time  
 11. Model stated that electrons move in orbits around the nucleus  
 12. Determined that electrons behave like waves

## Down

13. Model representing J.J. Thomson's discovery of the electron  
 14. Proposed  $E=h\nu$  and that energy can be absorbed and emitted by electrons in the form of light  
 15. Stated that negatively charged particles are scattered outside the nucleus  
 16. Stated that electrons can change energy levels based on the amount of energy they have  
 19. Described how a wave function of a physical system evolves over time  
 20. Experiment that proved existence of empty space in atoms

## Down

1. Determined the magnitude of an electrons charge  
 3. Law from Dalton that stated that atoms of different elements combine in simple whole number ratios  
 4. Law states by Proust that said complements of chemical compounds always combine in the same mass proportions  
 6. Thomson founded what component in the atom  
 7. Stated that all matter is made of atoms  
 17. Cathode Ray tube experiment  
 18. Millikan's experiment