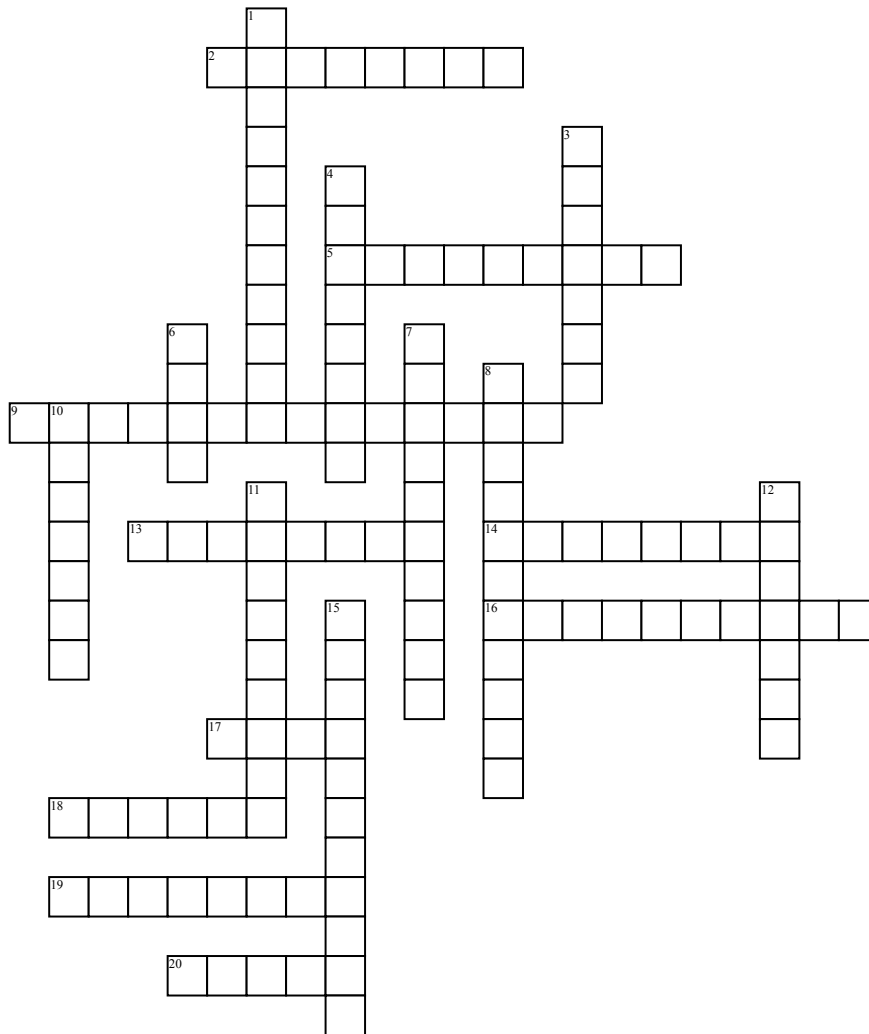


Atomic Theory Scientists



Across

- 2. Protons balance out the negative charge of electrons by producing a _____ charge.
- 5. Said there were 4 elements: water, earth, fire, and air.
- 9. Atoms are indivisible and _____.
- 13. He discovered the charge and mass of an electron by his famous oil drop experiment.
- 14. The Heisenberg Uncertainty Principle states that it is impossible to know simultaneously the exact position and momentum of a _____.
- 16. He Pounded up material in his pestle and mortar until he reduced them to smaller and smaller particles.
- 17. Said that electrons were in orbit.

- 18. The Greek word for invisible and where the word atom comes from.
- 19. Bohr's model was incorrect and only fit which element.
- 20. This person defined an element as any substance that cannot be decomposed into a simpler substance.

Down

- 1. Neils Bohr made a quantum model of the atom called _____.
- 3. Ernest Rutherford discovered _____ and developed the idea of a nucleus.
- 4. This scientist took Rutherford's research further and found the neutron.
- 6. Millikan inference that something had to account for the _____ of the atom.

- 7. This scientist created the Heisenberg Uncertainty Principle.
- 8. Joseph John Tomson developed a model which he called the _____ model.
- 10. Most of the mass of the atom is in the _____ and electrons orbit it like the planets orbit the sun.
- 11. Joseph John Thomsom found that _____ used the cathode ray tube because of its negative charge.
- 12. Chadwick had the idea trhat there could be a particle with mass but no charge which he called the _____.
- 15. This scientist suggested that orbits were not always circular, but in a pattern he called orbitals.

Word Bank

- | | | | | |
|-------------|----------------|-----------|--------------|------------|
| Heisenberg | Mass | Electrons | Schrodinger | Chadwick |
| Neutron | indestructible | Protons | Plum Pudding | Aristotle |
| Nucleus | Bohr | Atomos | Particle | Positive |
| Bohrmodelor | Hydrogen | Boyle | Millikan | Democritus |