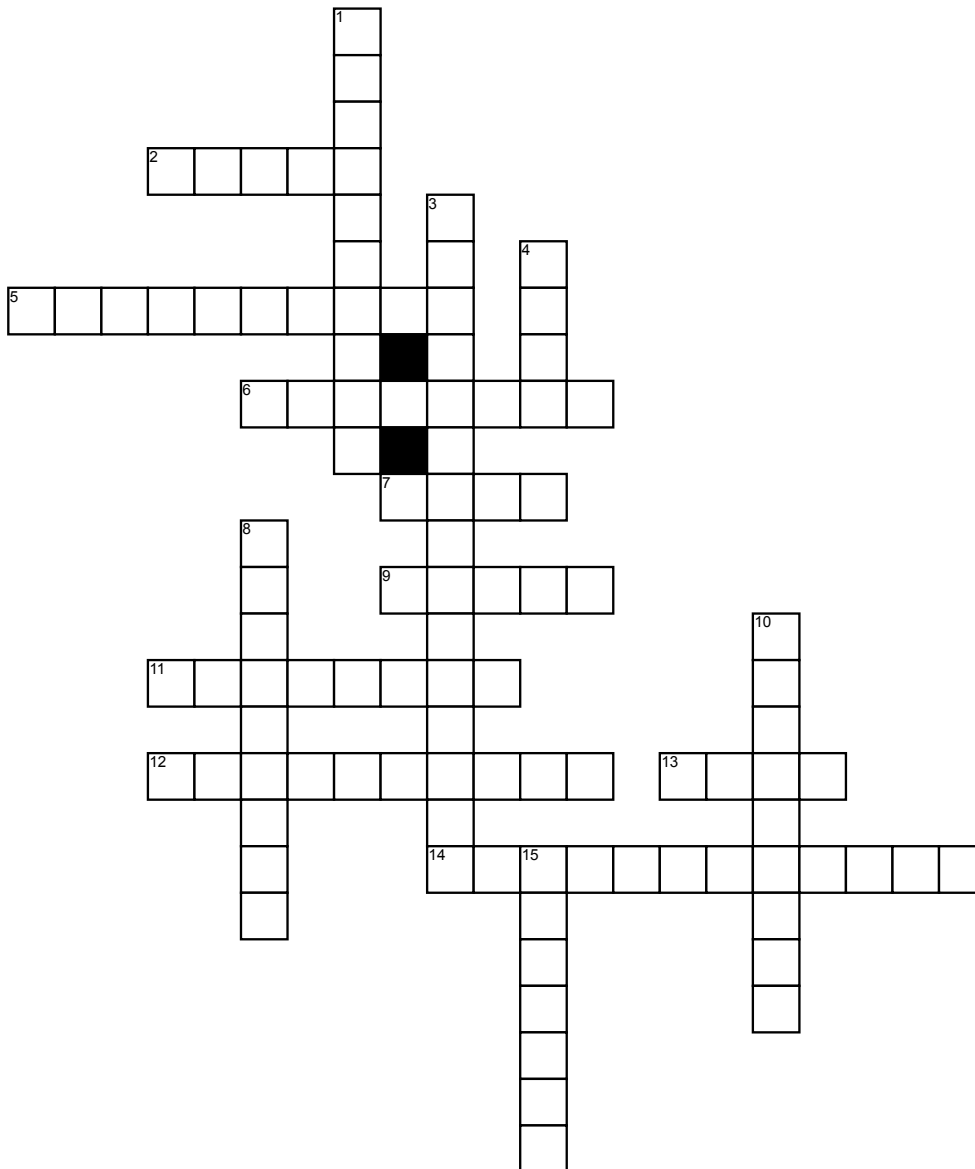


# Atomic



## **Across**

- 2.** This particle was fired at a thin piece of foil to investigate its structure, and it is made up of 2 protons and 2 neutrons
- 5.** Most of the alpha particles went through the gold foil showing the atom was mostly....
- 6.** The Plum pudding model was proposed by JJ Thomson after he discovered the what?
- 7.** This scientist, first name Niels, suggested that electrons occupy orbits, or energy levels, around the nucleus
- 9.** This type of ionising radiation is electromagnetic radiation from the nucleus of an atom

- 11.** Isotopes are atoms of an element with the same number of protons but different numbers of ?
- 12.** Electrons in the atom can only orbit at specific distances from the nucleus. What interaction with electromagnetic radiation will cause the electron to move further from the nucleus?
- 13.** This type of particle is a fast moving electron
- 14.** This is what happens when a radioactive substance enters a system such as a river or a human being

## **Down**

- 1.** This is what happens when an object is exposed to ionising radiation

- 3.** An electron, orbiting a nucleus, will move closer to the nucleus when it emits what type of radiation?
- 4.** The approximate size of the atom is 0.1 '.....' meters
- 8.** Like charges experience what type of electric force?
- 10.** Electrons in the atom orbit at different ..... from the nucleus
- 15.** James Chadwick discovered the existence of this subatomic particle that helped refine the nuclear model