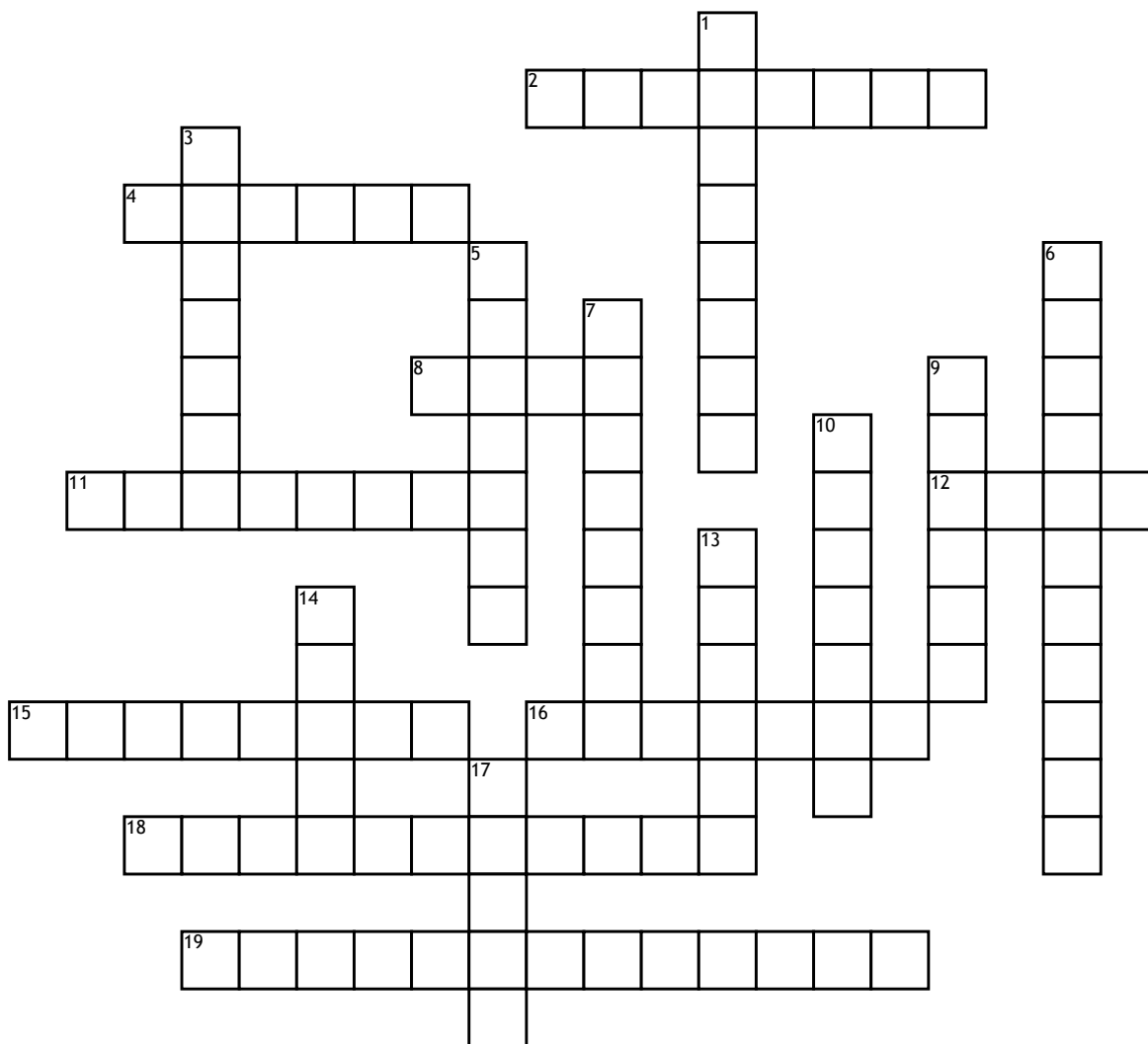


Atomic Structure Crossword



Across

2. A subatomic particle with the relative mass that is very small and a relative charge of -1

4. A reaction in which two nuclei combine to form a nucleus with the release of energy

8. A type of nuclear radiation that is moderately ionising, consists of a high-speed electron, which is ejected from a nucleus as a neutron turns into a proton

11. Lacking stability; having a very short lifetime; radioactive

12. The smallest quantity of an element that can take part in a chemical reaction, consisting of a positively charged nucleus made up of protons and neutrons, surrounded by negatively charged electrons

15. Atoms of the same element, but with different numbers of neutrons in the nucleus

16. A subatomic particle with a relative mass of 1 and no charge

18. To expose an object to nuclear radiation (the object does not become radioactive)

19. The unwanted presence of materials containing radioactive atoms on other materials

Down

1. The rate at which a radioactive emits radiation, measure in becquerels

3. The positively charged, dense region at the centre of an atom, made up of protons and neutrons, orbited by electrons

5. A substance made of only 1 atom

6. Containing a substance that gives out radiation

7. The average time it takes for half the nuclei in a sample of radioactive isotope to decay; the time it takes for the count rate/activity of the radioactive isotope to fall by 50% (halve)

9. A radioactive isotope that is put into a system so that its movement can be tracked, helping to reveal blockages/holes that should not be there; used in medicine and industry

10. The splitting of an atomic nucleus into parts, either spontaneously or as the result of an impact of a particle usually with an associated released of energy

13. A subatomic particle with a relative mass of 1 and relative charge of +1

14. A type of nuclear radiation that is strongly ionising, in the form of a particle consisting of two protons and two neutrons (a helium nucleus)

17. High frequency, short wavelength electromagnetic waves; a type of nuclear radiation, emitted from a nucleus