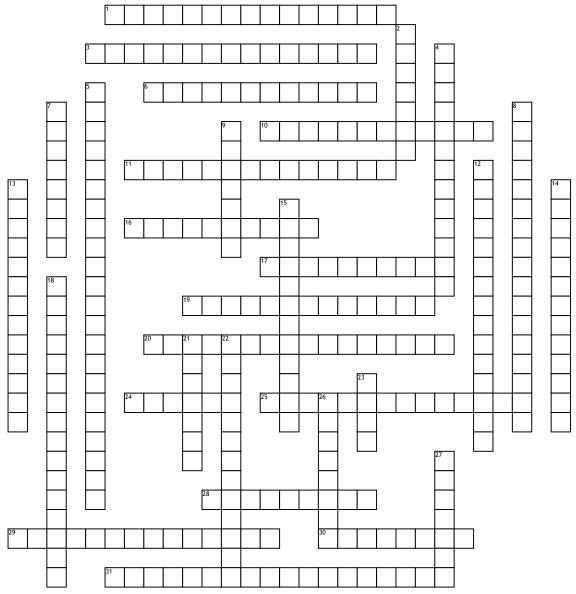
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Chemistry Vocabulary Puzzle 2



Across

- 1. represents the reactants and products of radioactive decay.
- **3.** the change in identity of an atomic nucleus when it is bombarded with an energy particle
- 6. the same as the number of protons
- 10. isotopes with unstable nuclei.
- ${\bf 11.}$ he number of protons and neutrons in an element.
- **16.** the amount of protons and neutrons in an element (amu)
- 17. difference in mass between a nucleus and its component nucleus.
- **19.** radioactive decay where beta particles are emitted.
- **20.** the length of an electron beam transmitted for a substance.
- ${\bf 24.}$ identify an atom, positive charge; found in the nucleus
- **25.** ionizing radiation with alpha particles emitted during radioactive decay.

- 28. emissions of energy through waves or particles
- **29.** when a nucleus splits due to the bombardment of energy, produces large amounts of energy compared to chemical reactions
- **30.** a negatively charged particle; found in the electron cloud.
- **31.** one of the four fundamental forces in nature **Down**
- 2. a proton or neutron.
- **4.** radioactive substances or the emissions emitted
- 5. a decay through a sequence of alpha and beta decays until a stable element is reached
- 7. smallest wavelength with the most amount of energy. High energy photons, no charge.
- 8. determines the age of an object by measuring the amount of carbon radioisotopes remaining
- **9.** the center of that atom that contains the protons and neutrons.
- **12.** the stability of elements determined by the ratio if the number of neutrons to the number of protons in the nucleus.

- **13.** a helium particle emitted by some radioactive elements, +2 charge.
- **14.** a nuclear reaction where a nucleus with a low atomic number fuses to form a heavier nucleus
- **15.** a particle with a charge of -1.
- **18.** when an unstable atom loses energy by radiation.
- **21.** a particle with a neutral charge; found in the nucleus.
- **22.** the changing from one element to another by radioactive deca/bombardment.
- **23.** a form of ionizing radiation, energy is deposited into matter.
- **26.** the time requires for half of the original unstable isotope to decay to another atom
- 27. two or more forms of the same elements with the same amount of protons but different amounts of neutrons (different amu). Sometimes it is the radioactive form of the element.