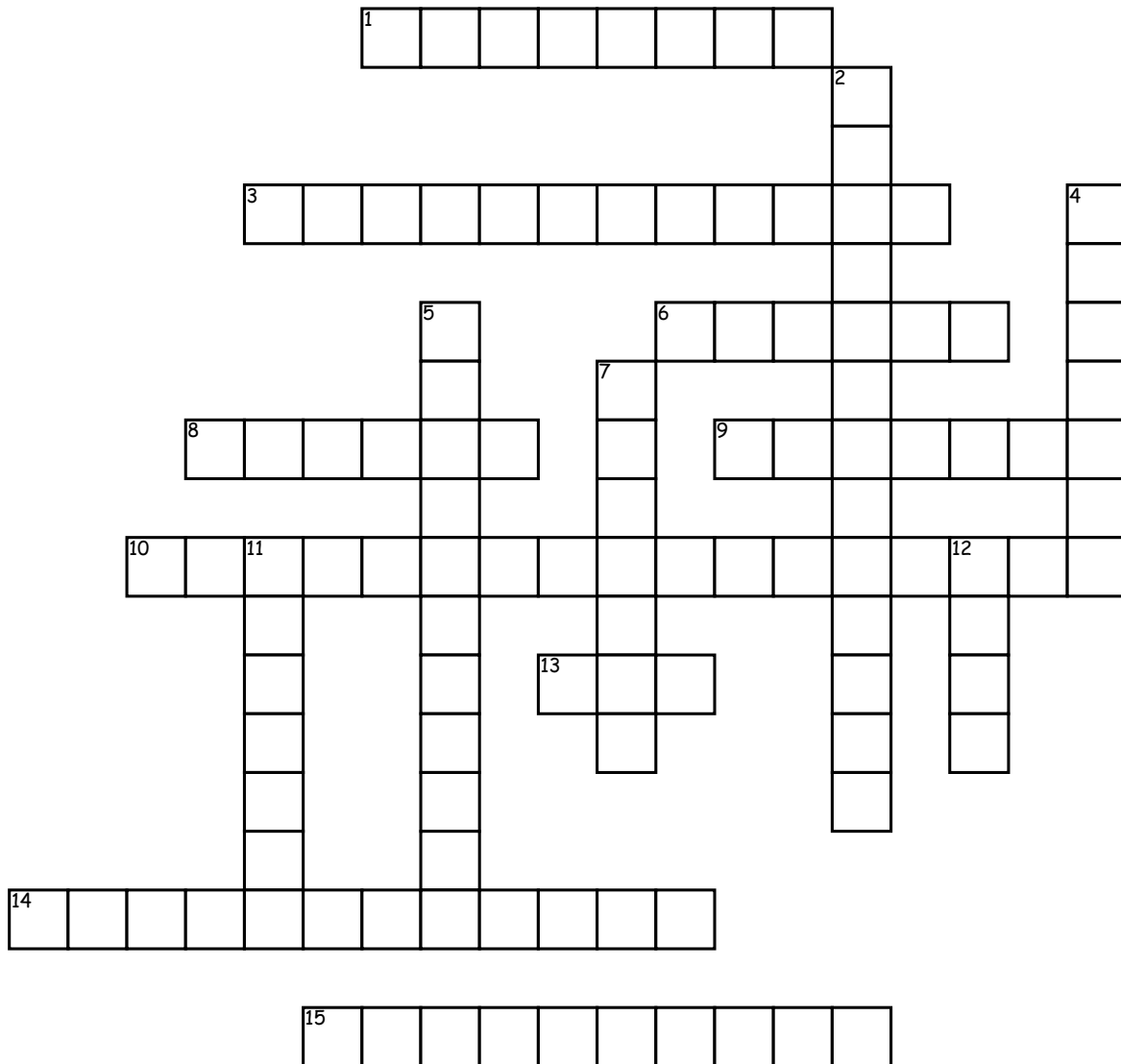


Chapter 4 Understanding the Atom



Across

- 1. a negatively charged particle that moves in the space surrounding the nucleus
- 3. the number of protons in the atom of an element
- 6. a positively charged particle located in the nucleus
- 8. anything that has mass and takes up space
- 9. atoms of the same element that contain different numbers of neutrons
- 10. the weighted average mass of the mixture of an element's isotopes

13. an atom that is no longer neutral because it has gained or lost electrons

14. a single wavelength of light that can be seen when the light from an excited element is passed through a prism

15. the sum of the number of protons and neutrons the atom has

Down

2. a region surrounding an atomic nucleus where an electron is most likely to be found

4. a region that is located at the center of an atom and contains most of the atom's mass

5. the region of space in which electrons can move about the nucleus of an atom

7. a neutral particle which has no charge, located in the nucleus

11. a pure substance made from atoms that all have the same number of protons

12. a very small particle that makes up all matter