

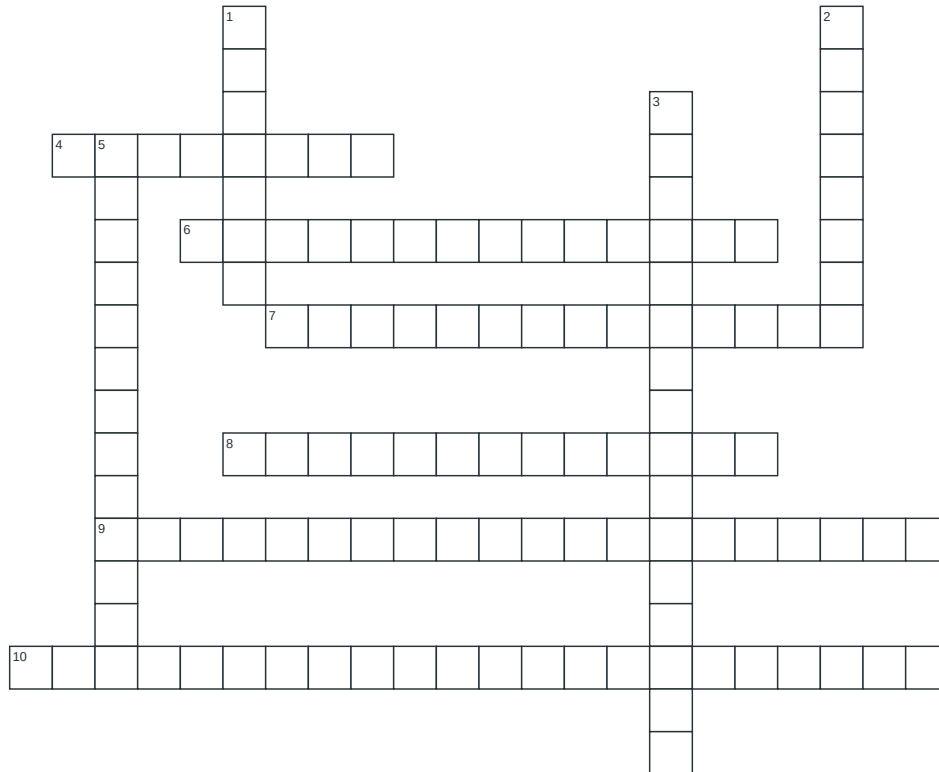
Nuclear Chemistry Crossword

Easy | 10 clues | Student Worksheet

Name: _____

Date: _____

Directions: Use the clues to complete the grid. Omit spaces, punctuation, and hyphens.



ACROSS

4. Time for half the undecayed nuclei in a large sample to decay on average
6. Splitting of a large nucleus into smaller nuclei
7. High-energy electromagnetic radiation emitted during some nuclear changes
8. Joining of small nuclei to form a larger nucleus
9. Have different numbers of neutrons
10. Remains unchanged during an ordinary chemical reaction but may change in a nuclear reaction

DOWN

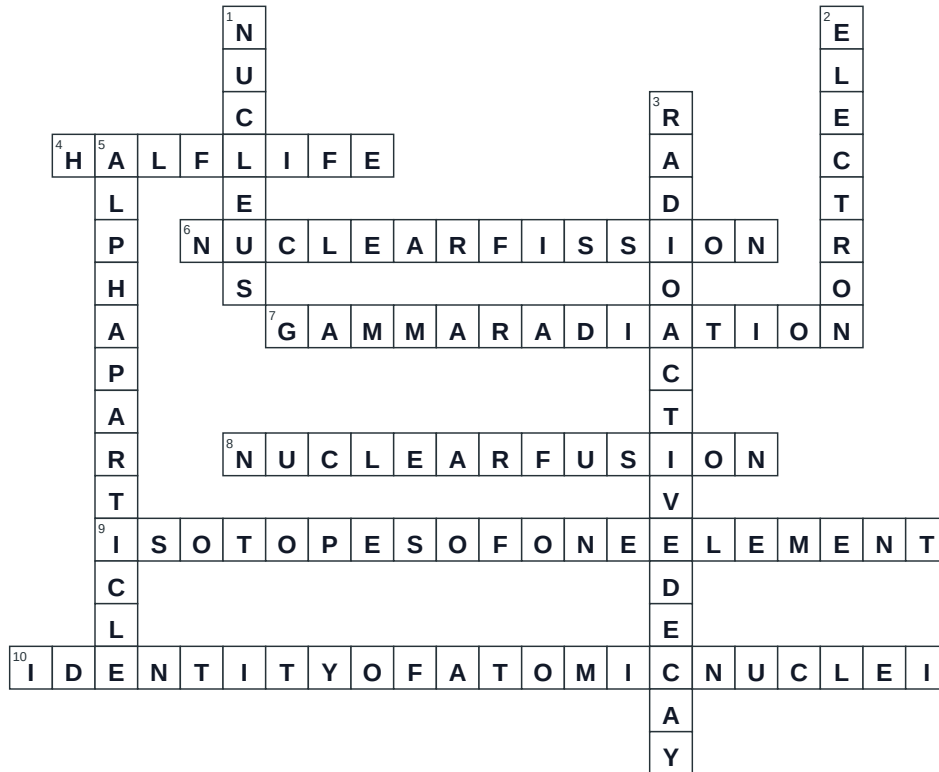
1. Protons and neutrons
2. Definition of a beta-minus particle emitted in nuclear decay
3. Spontaneous change of an unstable nucleus
5. Nuclear emission containing two protons and two neutrons

Nuclear Chemistry Crossword

Easy | 10 clues | Teacher Answer Key

TEACHER ANSWER KEY

Completed grid and numbered answers. Spaces and punctuation are omitted in the grid.



ACROSS

4. Half-life
6. Nuclear Fission
7. Gamma Radiation
8. Nuclear Fusion
9. Isotopes Of One Element
10. Identity Of Atomic Nuclei

DOWN

1. Nucleus
2. Electron
3. Radioactive Decay
5. Alpha Particle

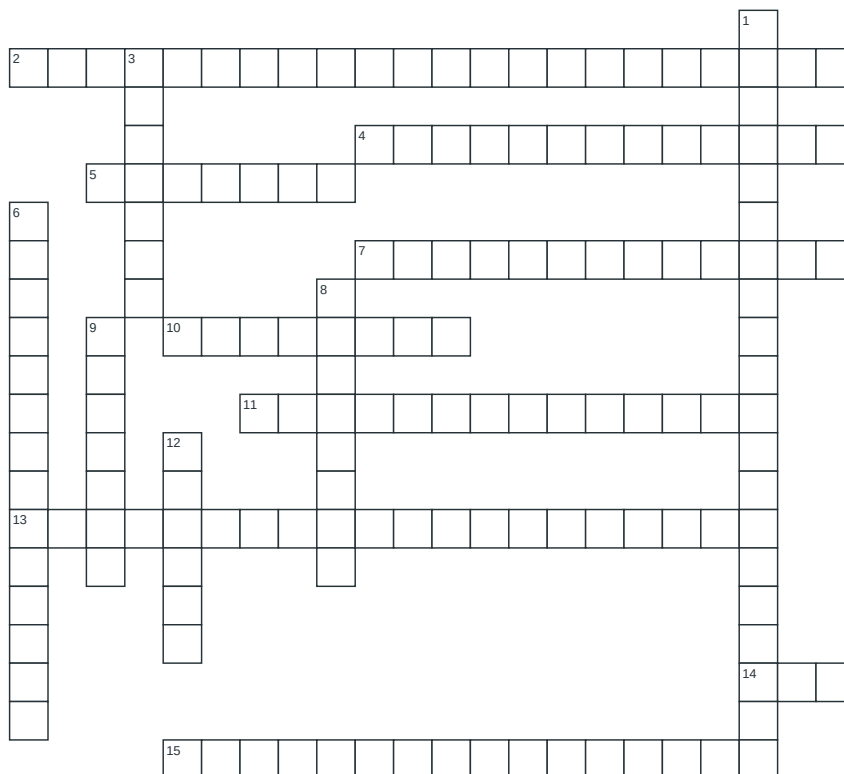
Nuclear Chemistry Crossword

Medium | 15 clues | Student Worksheet

Name: _____

Date: _____

Directions: Use the clues to complete the grid. Omit spaces, punctuation, and hyphens.

**ACROSS**

2. Remains unchanged during an ordinary chemical reaction but may change in a nuclear reaction
4. Nuclear emission containing two protons and two neutrons
5. Pure substance made of only one type of atom.
7. Joining of small nuclei to form a larger nucleus
10. Time for half the undecayed nuclei in a large sample to decay on average
11. Splitting of a large nucleus into smaller nuclei
13. Have different numbers of neutrons
14. Atom or group of atoms with a net electric charge.
15. Spontaneous change of an unstable nucleus

DOWN

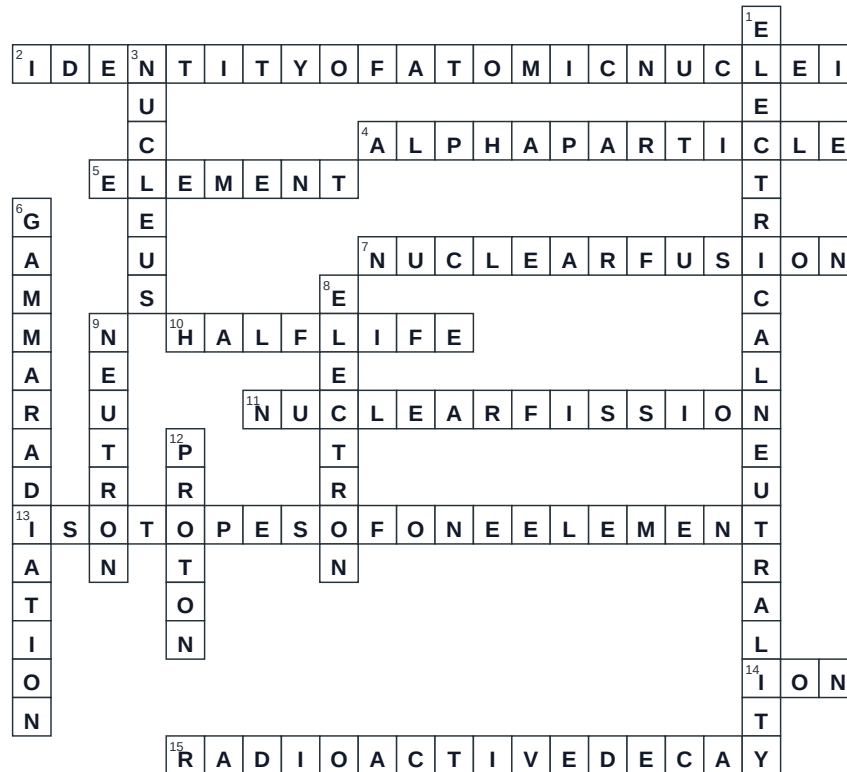
1. Condition in which positive and negative charges balance.
3. Protons and neutrons
6. High-energy electromagnetic radiation emitted during some nuclear changes
8. Definition of a beta-minus particle emitted in nuclear decay
9. Subatomic particle that has no electric charge
12. Subatomic particle that carries a positive electric charge

Nuclear Chemistry Crossword

Medium | 15 clues | Teacher Answer Key

TEACHER ANSWER KEY

Completed grid and numbered answers. Spaces and punctuation are omitted in the grid.



ACROSS

2. Identity Of Atomic Nuclei
4. Alpha Particle
5. Element
7. Nuclear Fusion
10. Half-life
11. Nuclear Fission
13. Isotopes Of One Element
14. Ion

ACROSS (continued)

DOWN

1. Electrical neutrality
3. Nucleus
6. Gamma Radiation
8. Electron
9. Neutron
12. Proton

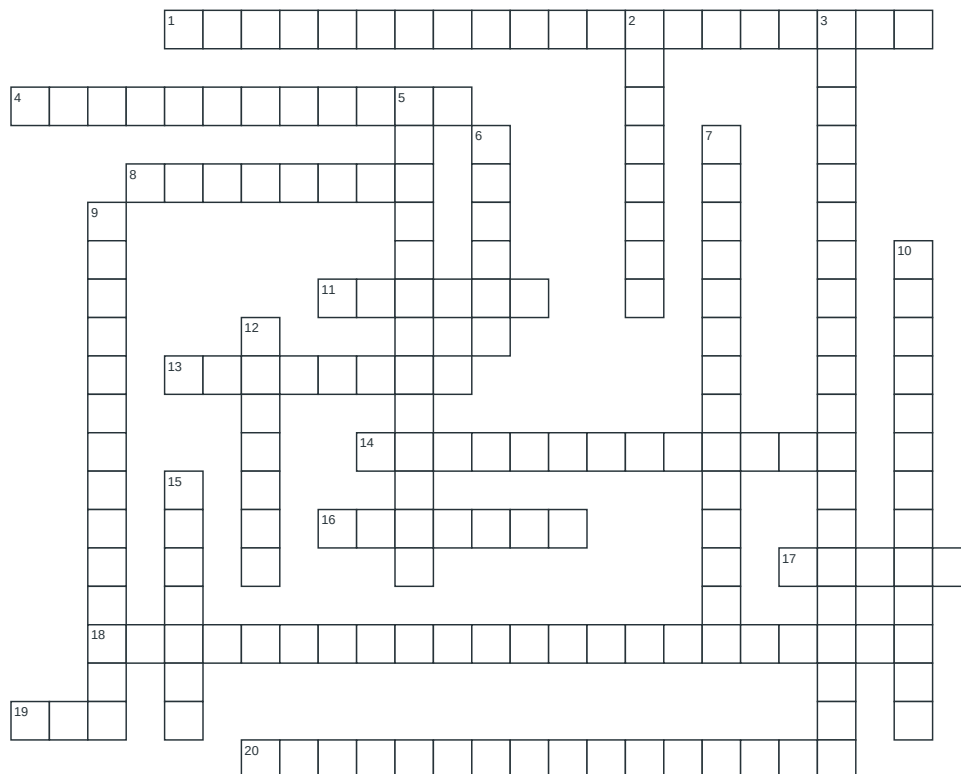
Nuclear Chemistry Crossword

Hard | 20 clues | Student Worksheet

Name: _____

Date: _____

Directions: Use the clues to complete the grid. Omit spaces, punctuation, and hyphens.

**ACROSS**

1. Have different numbers of neutrons
4. Number of protons in an atom's nucleus.
8. Time for half the undecayed nuclei in a large sample to decay on average
11. Element that forms the backbone of most organic molecules
13. Group that includes fluorine, chlorine, and bromine
14. Nuclear emission containing two protons and two neutrons
16. Subatomic particle that has no electric charge
17. Definition of a vertical column of the periodic table called
18. Remains unchanged during an ordinary chemical reaction but may change in a nuclear reaction
19. Atom or group of atoms with a net electric charge.
20. Spontaneous change of an unstable nucleus

DOWN

2. Definition of a beta-minus particle emitted in nuclear decay
3. Condition in which positive and negative charges balance.
5. Electron locations are described by regions of probability
6. Subatomic particle that carries a positive electric charge
7. High-energy electromagnetic radiation emitted during some nuclear changes
9. Splitting of a large nucleus into smaller nuclei
10. Joining of small nuclei to form a larger nucleus
12. Pure substance made of only one type of atom.
15. Protons and neutrons

Nuclear Chemistry Crossword

Hard | 20 clues | Teacher Answer Key

TEACHER ANSWER KEY

Completed grid and numbered answers. Spaces and punctuation are omitted in the grid.



ACROSS

1. Isotopes Of One Element
4. Atomic number
8. Half-life
11. Carbon
13. Halogens
14. Alpha Particle
16. Neutron
17. Group
18. Identity Of Atomic Nuclei
19. Ion
20. Radioactive Decay

DOWN

2. Electron
3. Electrical neutrality
5. Electron Cloud
6. Proton
7. Gamma Radiation
9. Nuclear Fission
10. Nuclear Fusion
12. Element
15. Nucleus