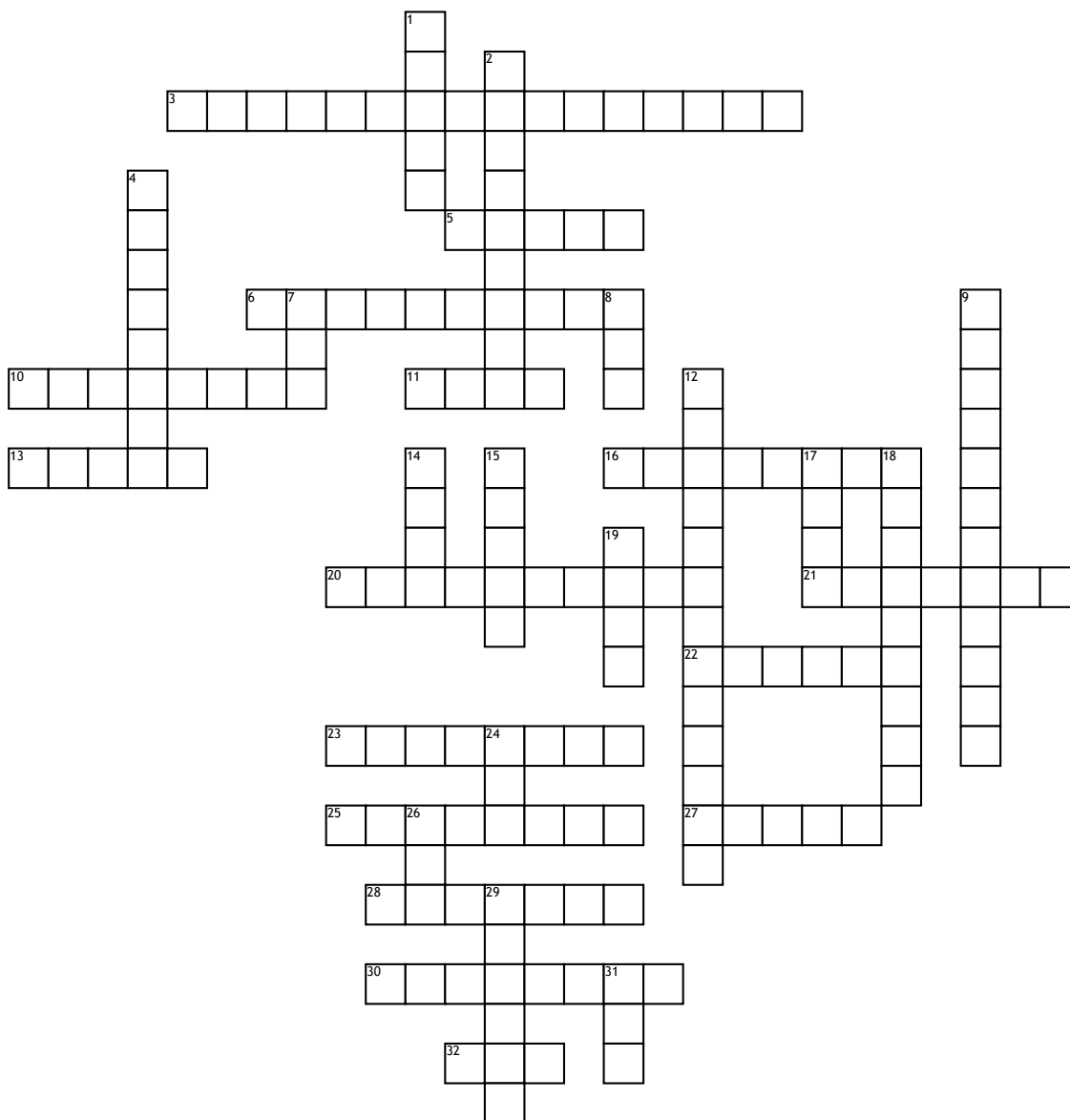


Name: _____

Date: _____

Atomic structures



Across

3. These metals form multivalent ions.

5. The rare earth metals are found in row _____.

6. The chemical family name for group VIII elements are called the _____.

10. Sodium loses one electron to form a cation with a _____ one charge.

11. Metals _____ electron(s) to achieve the same electron arrangement as the closest noble gas.

13. The alkaline earth metals react with water to form _____.

16. The name of an ion with two oxygen atoms joined together with a 2- charge is called _____.

20. Ernest _____ discovered the nucleus of the atom.

21. Protons and neutrons are found in the _____ of an atom.

22. This metal is used in telecommunication because it is a good conductor of electricity. _____

23. Electron carries a _____ charge.

25. Elements that have the same number of protons but different mass numbers are called _____.

27. Gilbert Lewis explains chemical bonding using a model known as the _____ dot or structures diagram.

28. This liquid metal, _____, was used in thermometers.

30. A molecule consisting of two atoms joined together in a single unit is called _____.

32. A charged ion is called _____.

Down

1. The chemical formula for _____ is H₂O

2. _____ gain electrons to form anions.

4. The most reactive nonmetals in group VII is _____.

7. All halogens gain _____ electron(s) to form ions with -1 charge.

8. There are _____ energy levels in an atom of astatine.

9. Bohr found that electrons occupied certain allowed orbits called _____.

12. Dmitri Mendeleev is famous for arranging 64 known elements in an organized table called the _____.

14. Table _____ is called sodium chloride.

15. All elements, with the exception of noble gases, gain, lose or share electron(s) to obtain a full valence shell of eight electrons. This is known as the _____ rule.

17. This element is used to make steel and has 26 protons is called _____.

18. J. J. _____ discovered the _____.

19. Most metals are gray or silver in color, except for copper and _____.

24. The maximum number of electrons allowed in the first energy level is _____.

26. The number of valence(s) for alkali metals is/are _____.

29. A positively charged ion is called _____.

31. Nonmetal ions have the ending "_____ " in their names.