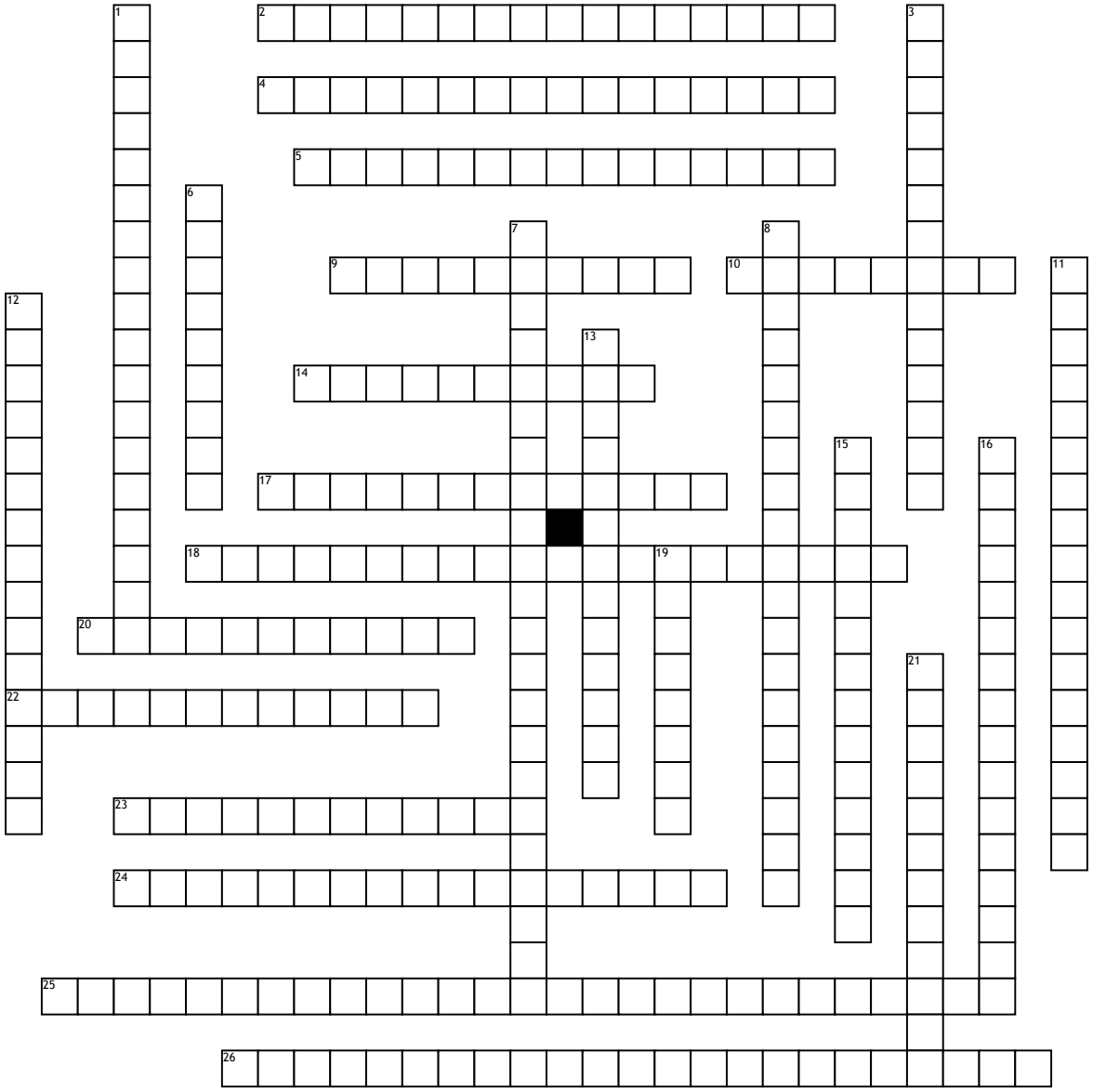
Name: _____

Ions,Covalent bonding



Across

2. Uses subscripts to give the actual number of atoms of each element present in one molecular of a compound.

4. Which gives the simplest whole number ratio between the elements in the compound using subscripts

5. Only valence electrons take part in the reaction. This makes compounds stable(full shell)

9. Ionic solids due to being composed of positive and negative ions most are soluble in polar events and in simple molecular solids dissolves like polar in polar and non polar in nonpoalr

10. 3 carbons hexagonal

14. The metal lattice is held together by Elelctrostatic forces of _____ the lattice is composed of cations+ and anions

17. The atoms at each side of a covalent bond attract the electrons in the bond with different stregths

18. Since they move around in the lattice

20. Because of this packed metals atoms the outer shells overlap and the valence electrons become

22. The atoms in a metal are packed very closely together to form a

23. Ionic solids do not conduct electricity when solid because the ions are held together by strong bonds and are not free to move and in simple molecular solids do not conduct electricity in any state because no charged particles are present.

24. Molecules may be polar or non polar as a result of

25. The fourth electron of each carbon atom is delocalised allowing it to move within the crystal. These moving electrons can carry electricity through the crystal.

26. Are solids composed of small molecules. Each molecule is composed of only a few atoms bonded together by strong covalent bonds.

Down

1. Have same chemical properties but different physical properties due to difference in bonding

3. When sodium chloride is added to water the ions can separate resulting in NaCl being soluble in water. The partial positive ends of the polar water molecules attract the negative chloride ions and the partial negative ends attract the positive sodium ions.

6. Are different structural forms of the same element in the same physical state.Diamond and graphite are examples.

7. Are composed of nonmetals atoms bonded by strong covalent bonds. Eg diamond,graphite,SiO2

8. Very high melting point The covalent bonds between the carbon atoms are very strong a very large amount of heat is needed in order to weaken the forces of attraction and separate the solids from each other.

11. Which is diagrammatic representation of one molecule of the compound using lines between the atoms to represent bonds.

12. Compounds formed by ionic or covalent bonding can be represented by

13. Are solids formed as a result of ionic bonding. These crystals have an ionic lattice which is composed of cations and anions held together in a regular repeating 3 dimensional arrangement by electrostatic forces of attraction.

15. a compound composed of two elements

16. Sulfur ,phosphorus (in solid state and Oxygen in gaseous state

19. atoms share electrons equally

21. Ionic solids have a high melting point because of the strong ionic compounds between the ions. And in simple molecular solids have low melting point because of the weak intermolecular forces.