**Opposites Attract Learning Outcomes Revision worksheet**

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| **Question** | **Answer** |
| 1. Properties of substances, including melting point, boiling point, solubility, conductivity and pH can | give information about the type of bonding |
| 1. Bonds are forces of attraction between…. | opposite charges which hold particles (atoms, ions or molecules) in substances together |
| 1. Covalent bonds are found in…. | substances containing non - metals |
| 1. Covalent bonds hold atoms together in small groups called…. | molecules or large structures called networks |
| 1. Covalent bonds are strong so…. | it takes a lot of energy to break them. |
| 1. An electric current is the… | movement of particles with charge (flow of electrons) |
| 1. Covalent compounds do not conduct electricity because… | there are no charged particles which move through the substance. |
| 1. Substances with covalent molecules have low melting and boiling points because… | forces between the molecules are relatively weak. |
| 1. Ionic bonds are the attractions between | oppositely charged ions in ionic compounds |
| 1. Compounds formed between metal and non – metal elements usually form… | usually have ionic bonding. |
| 1. Ions in solid ionic compounds are held together in a ….. | 3D ionic lattice |
| 1. Ionic bonds are strong, and so it takes a lot of energy to break them, so …. | ionic compounds have high melting and boiling points. |
| 1. Most ionic compounds dissolve in… | water |
| 1. Ionic compounds do not conduct ….. | electricity in the solids but do so in liquids or solutions |
| 1. Ions cannot move in solids because the strong ionic bonds (forces of attraction between opposite charges)… | hold the ions in the lattice. |
| 1. Ionic liquids or solutions conduct because… | ions (charged particles) can move as the ionic lattice has broken down completely |
| 1. Electrolysis is when an ionic compound is… | is broken down into elements using electricity. |
| 1. A D.C. (direct current) must be used … | to allow the ions to separate. |
| 1. Electrolysis is a chemical reaction where ions either | lose or gain electrons to form atoms of the elements. |
| 1. Metal ions lose electrons and form a.. | and are attracted to the negative electrode. |
| 1. Non – metal ions gain electrons and form a …. | negative charge and are attracted to the positive electrode. |
| 1. The metal ion will be attracted to the.. | negative electrode (cathode) because they have a positive charge |
| 1. The non – metal ion will be attracted to the …. | positive electrode (anode) because they have a negative charge. |
| 1. Salt crystals can be obtained from a | saturated solution by evaporation |
| 1. The structure of a salt crystal is … | cubic structure |
| 1. In a fair test investigation on the size of the current through ionic solutions… | An ac power supply is used and the current is measured using an ammeter. |