



Name \_\_\_\_\_

Block \_\_\_\_\_ Date \_\_\_\_\_

## Introduction to Bonding

Write your own definition of a chemical bond and explain why most atoms form chemical bonds.  
Use your own words!

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## Bonding Comparison Chart

|                          | IONIC | COVALENT | METALLIC |
|--------------------------|-------|----------|----------|
| Types of Atoms Involved  |       |          |          |
| Method of Bond Formation |       |          |          |
| Type of Structure        |       |          |          |
| Physical State           |       |          |          |
| Melting Point            |       |          |          |
| Solubility in Water      |       |          |          |
| Electrical Conductivity  |       |          |          |
| Other Properties         |       |          |          |
| Image                    |       |          |          |

**Questions:** Answer- in complete sentences- the following four questions on a separate sheet of paper.

1. Why do most atoms form chemical bonds?
2. How are the ionic bonds formed? The covalent bonds? The metallic bonds?
3. What are the typical properties of an ionic bond? A covalent bond? A metallic bond?
4. Identify two compounds that are the result of an ionic bond. A covalent bond. A metallic bond.

**Application:** Complete one of the following.

- **STORY** - Choose one type of bonding and write "A Day in the Life of an Atom" story describing what it's like to be an atom that forms your chosen bond type. The story should incorporate at least 5 properties from your Bonding Comparison Chart.
- **COMIC STRIP** - Choose one type of bonding and write a comic strip with 3+ frames. The comic should incorporate at least 3 properties from your Bonding Comparison Chart.
- **SINGLE-FRAME CARTOON** - Draw a single-frame cartoon for each type of bonding. Each cartoon should incorporate at least one key property from your Bonding Comparison Chart.