$\qquad$ Date: $\qquad$
$\qquad$

## Chemical Bonds

| S | R | R | D | S | N | P |  |  | V |  | L | E |  | T | B | 0 | $N$ | D | T | L | R |  | C |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| N | U | L | L | C | R | Q | B | N | G | Y | Y | 1 | U | P | 1 | H | L | P | H | V | Q |  | R |
| M | K | U | V | C | A | T | 1 | 0 | N | A | 0 | N | H | T | B | N | S | D | Z | P | $J$ |  | Y |
| P | B | T | V | C | M | L | C | F | J | N | N | J | B | Z | $J$ | H | 1 | F | 0 | W | B |  | S |
| Q | T | 1 | D | N | 0 | X | U | F | S | W | 0 | 1 | Y | X | A | N | 1 | E | R | N | H |  | T |
| E | K | P | B | R | T | P | S | Y | D | K | X | P | 0 | K | T | D | N | 0 | U | M | W |  | A |
| W | F | U | A | N | T | $J$ | M | G | C | W | B | $J$ | B | N | V | H | Y | 1 | L | T | B |  | L |
| V | F | E | W | Q | H | B | S | N | 0 | R | T | C | E | L | E | F | 0 | A | E | S | X |  | L |
| 0 | Z | B | V | F | 0 | P | 1 | 0 | N | S | H | 1 | A | R | E | S | D | Q | 0 | F | G |  | A |
| M | X | H | A | L | 1 | R | D | P | 0 | M | W | U | E | E | A | 1 | K | D | F | 0 | Q |  | T |
| 0 | D | L | 0 | C | T | E | T | R | U | L | E | E | 0 | T | W | 0 | J | 0 | Z | 0 | N |  | T |
| Y | N | B | A | M | S | U | B | S | C | R | 1 | P | T | W | F | V | Z | B | E | P | 0 |  | 1 |
| W | 0 | $V$ | D | N | U | 0 | P | M | 0 | C | C | 1 | N | 0 | 1 | P | $J$ | 0 | R | Q | N |  | C |
| 0 | B | V | A | L | E | N | C | E | E | L | E | C | T | R | 0 | N | S | Q | 0 | J | M |  | E |
| 1 | C | K | G | $J$ | $J$ | I | X | H | 1 | G | N | Y | M | G | E | E | Q | B | P | P | E |  | B |
| U | 1 | K | H | C | N | E | M | A | $J$ | K | A | $J$ | E | Q | B | T | G | F | C | E | T |  | N |
| 0 | L | T | P | 1 | R | C | S | R | E | P | U | S | L | A | T | E | M | B | L | H | A |  | F |
| $J$ | L | Q | L | L | L | D | 1 | C | H | E | M | 1 | C | A | L | F | 0 | R | M | U | L |  | T |
| X | A | U | W | S | Y | M | 0 | N | A | T | 0 | M | 1 | C | 1 | 0 | N | 0 | V | M | S |  | D |
| C | T | B | 1 | 0 | N | 1 | C | B | 0 | N | D | 0 | R | Z | N | Q | 1 | L | G | G | Z |  | B |
| S | E | $J$ | N | 0 | 1 | C | 1 | M | 0 | T | A | Y | L | 0 | P | U | B | R | K | C | G |  | B |
| G | M | K | 0 | H | E | C | R | 0 | F | C | 1 | T | A | T | S | 0 | R | T | C | E | L |  | S |
| L | F | H | K | N | A | U | C | G | H | E | T | N | 1 | 0 | P | G | N | 1 | T | L | E |  |  |
| M | 0 | T | B | T | W | Y | U | N | U | L | R | 0 | H | N | P | 0 | F | W | Z | B | U |  |  |


| Electrostatic Force | Valence Electrons | Sea of Electrons | Chemical Formula |
| :--- | :--- | :--- | :--- |
| Crystal Lattice | Ionic Compound | Polyatomic lon | Melting Point |
| Metallic Bond | Monatomic lon | Covalent Bond | Rule of Zero |
| Superscript | Ion Symbol | Octet Rule | Ionic Bond |
| Subscript | Nonmetals | Metals | Cation |
| Anion | Ion |  |  |

