

Name: _____

Date: _____

Valence Electrons & Electron Dot Structures

Practice: Identify and Draw

Instructions: For each element below, the full electron configuration is provided. Analyze the configuration to determine the number of **valence electrons** (electrons in the outermost energy level). Then, draw the correct **electron dot structure** (Lewis structure) in the space provided.

| Element | Electron Configuration | Valence Electrons | Electron Dot Structure |
|---------------|---------------------------------|-------------------|------------------------|
| Sodium (Na) | $1s^2 2s^2 2p^6 3s^1$ | | |
| Oxygen (O) | $1s^2 2s^2 2p^4$ | | |
| Aluminum (Al) | $1s^2 2s^2 2p^6 3s^2 3p^1$ | | |
| Chlorine (Cl) | $1s^2 2s^2 2p^6 3s^2 3p^5$ | | |
| Carbon (C) | $1s^2 2s^2 2p^2$ | | |
| Argon (Ar) | $1s^2 2s^2 2p^6 3s^2 3p^6$ | | |
| Calcium (Ca) | $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2$ | | |
| Nitrogen (N) | $1s^2 2s^2 2p^3$ | | |