

**Goal** • Explore ionic and covalent bonding.

### What to Do

Answer each question in the space provided.

1. What are three ways that an atom can acquire a valence shell like the valence shell of its closest noble gas?

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2. What is a cation?

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3. What is an anion?

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4. In your own words, define the term “ionic compound.”

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5. In your own words, define the term “ionic bond.”

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6. Draw the electron dot diagram for each ion below.

(a)  $\text{Cl}^-$

(b)  $\text{K}^+$

(c)  $\text{Ca}^{2+}$