Activities Using Ion Puzzle Pieces

Print out the pieces (8 pages). You may want to use card stock or some color of paper other than white but this is not necessary. Take some time to cut out the pieces. It is important that you cut them out precisely so that they fit together well.

Activity One
Make the following compounds using the appropriate pieces:

Sodium Chloride formula _____

Potassium Bromide formula _____

Ammonium Nitrate formula _____

Ammonium Sulfate formula _____

Barium Cyanide formula _____

Calcium Nitrate formula _____

Aluminum Phosphate formula _____

Sodium Phosphate formula _____

Aluminum Sulfide formula _____

Activity Two
Make some compounds of your own choosing and write the formulas:

Name _____ formula _____

Name _____ formula _____

Name _____ formula _____

Activity Three
Sort the pieces into categories by charge: 3+, 2+, 1+, 1-, 2-, and 3-. Spend some time learning to recognize the members of each group. Locate ions that are made of one kind of atom on the periodic table. Do you see any patterns?

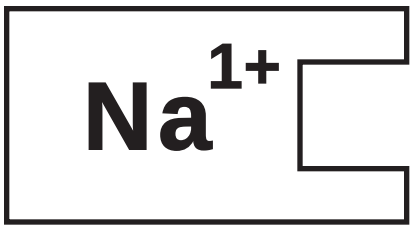
Make for ions using the blank pieces. Always make three copies of any ion so you will have plenty of pieces to form compounds. It is **VERY IMPORTANT** that you place ions on the correct type of puzzle piece so use the text book to check the charges of the ions. Create some ionic compounds with your new pieces:

Name _____ formula _____

Name _____ formula _____

Name _____ formula _____

Activity Four
Use these pieces as flash cards to study the names and formulas of the ions. Write the name of the ion on the back of each card.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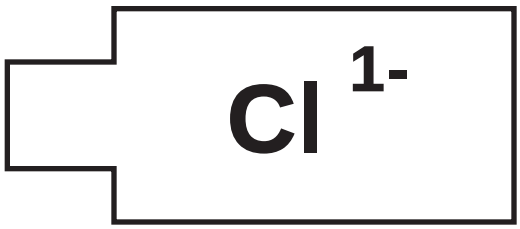
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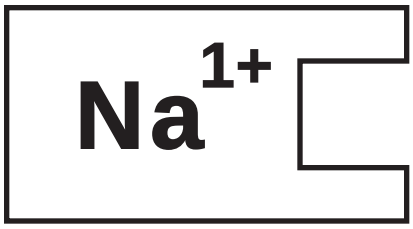
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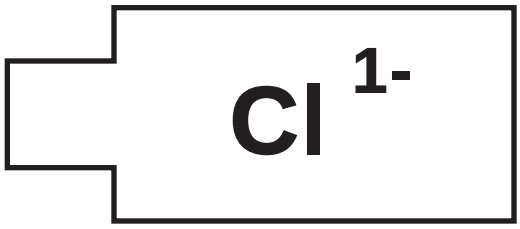
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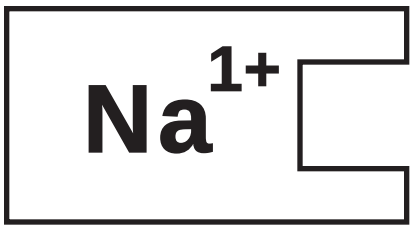
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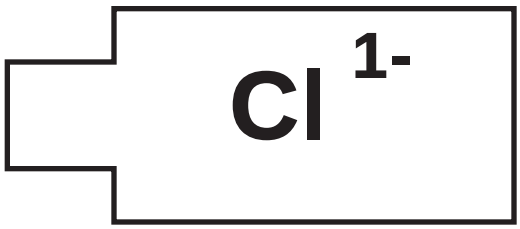
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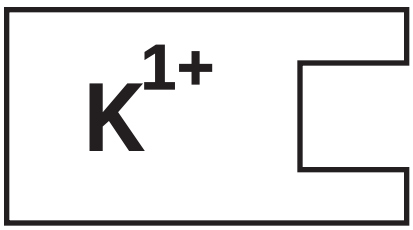
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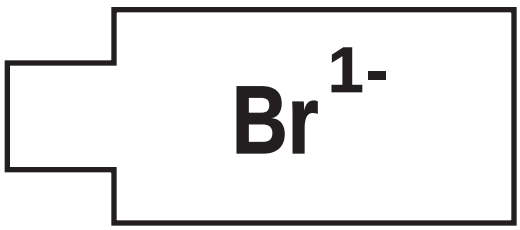
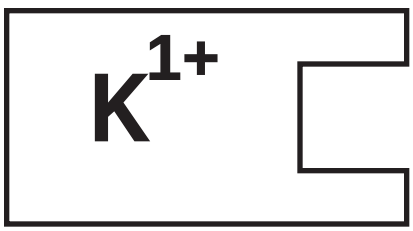

Br^{1-}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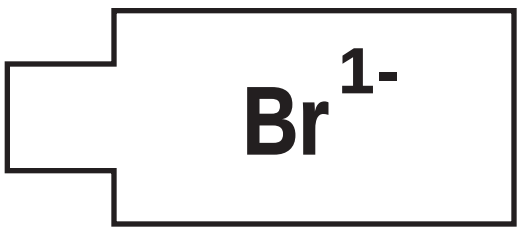
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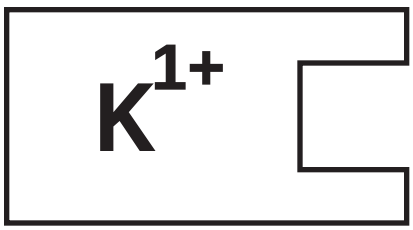
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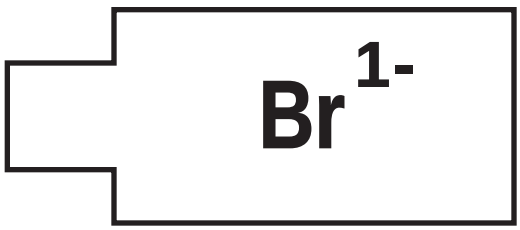
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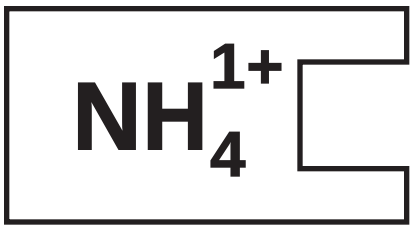
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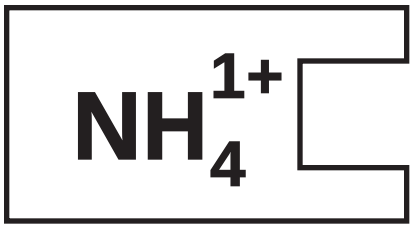
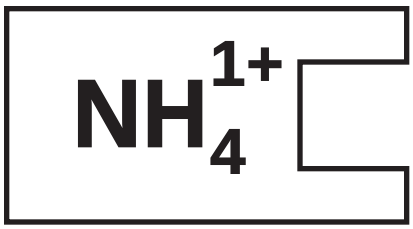
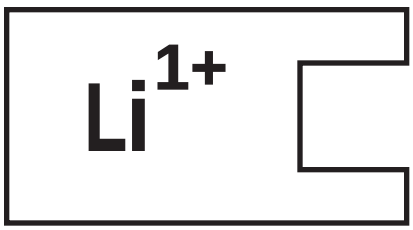
NO_3^{1-}


NH_4^{1+}


NO_3^{1-}


NH_4^{1+}


NO_3^{1-}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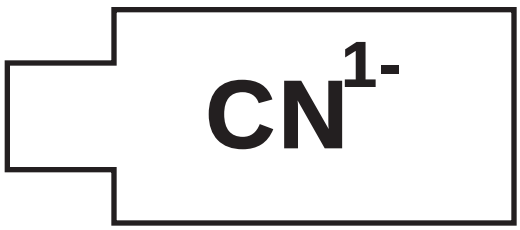
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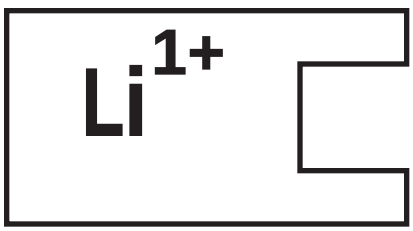
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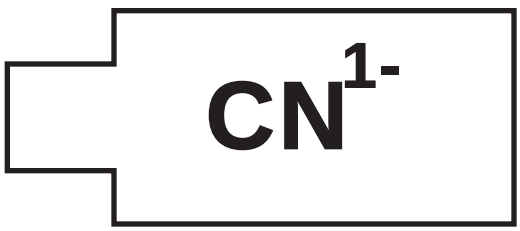
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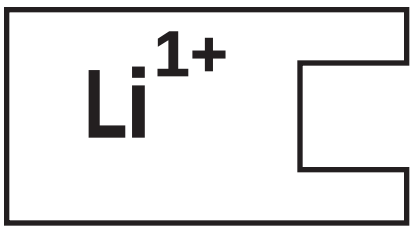
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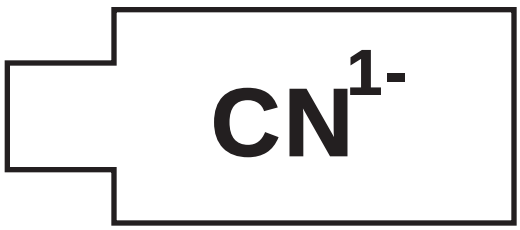
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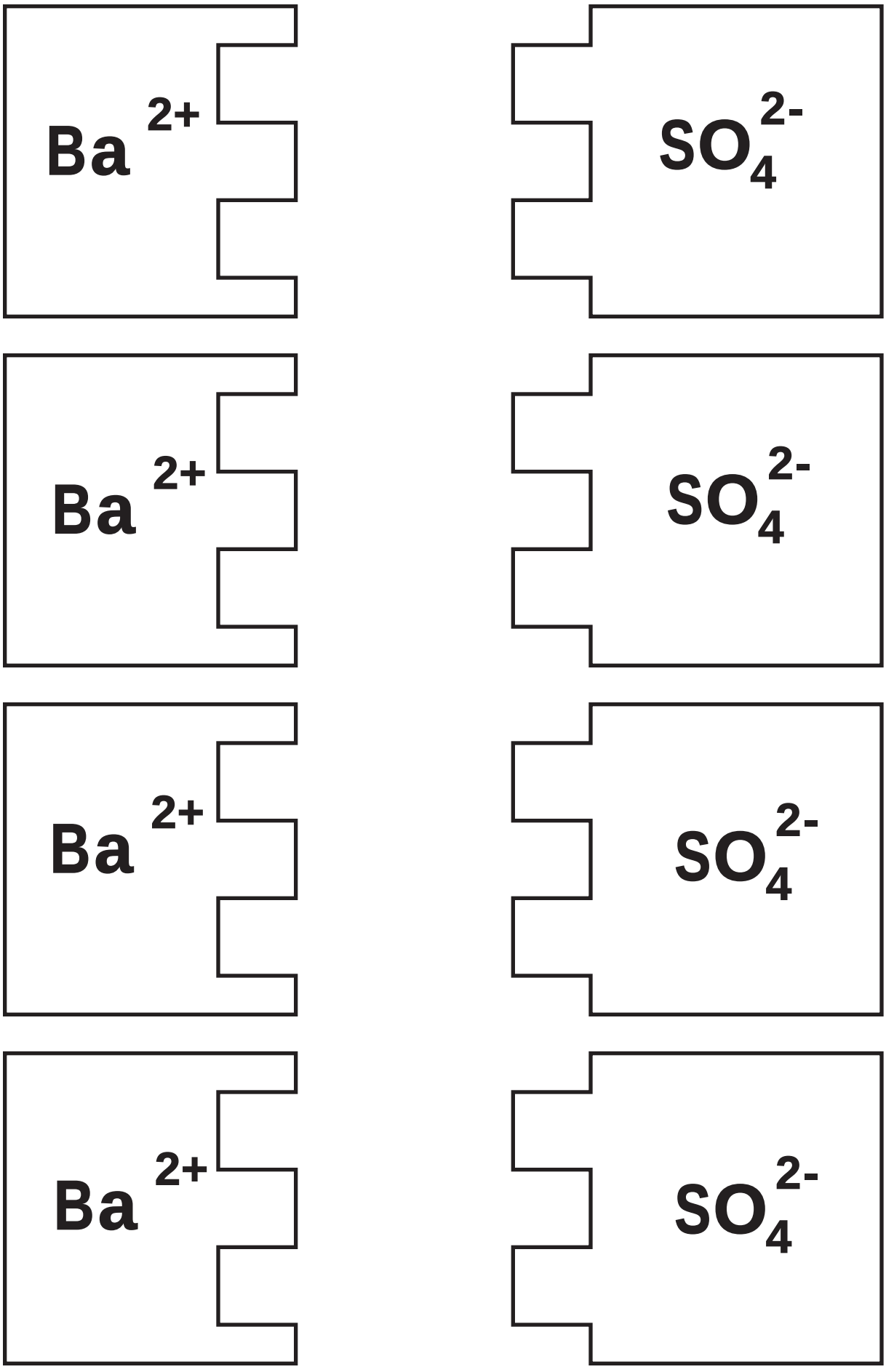
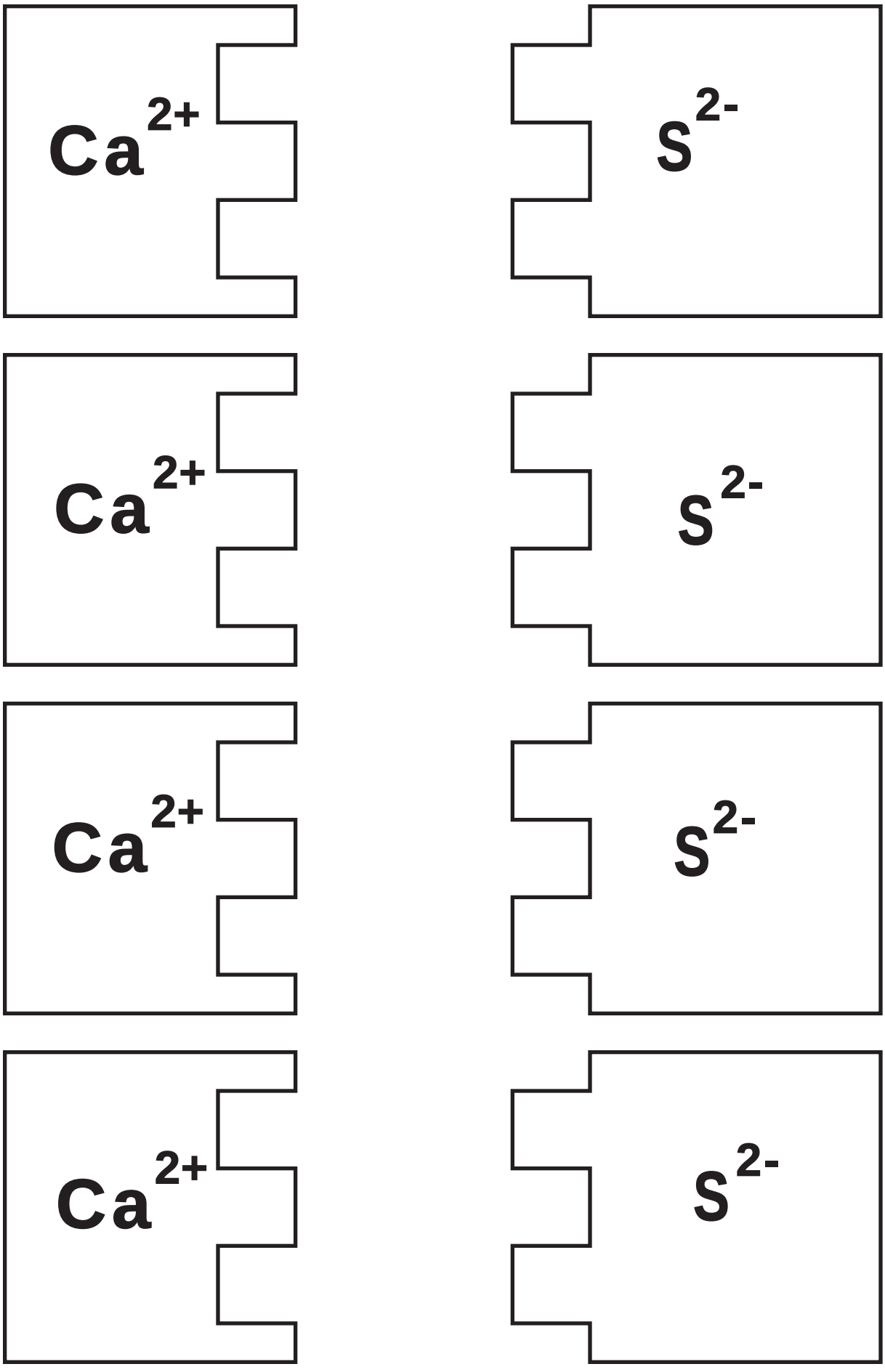
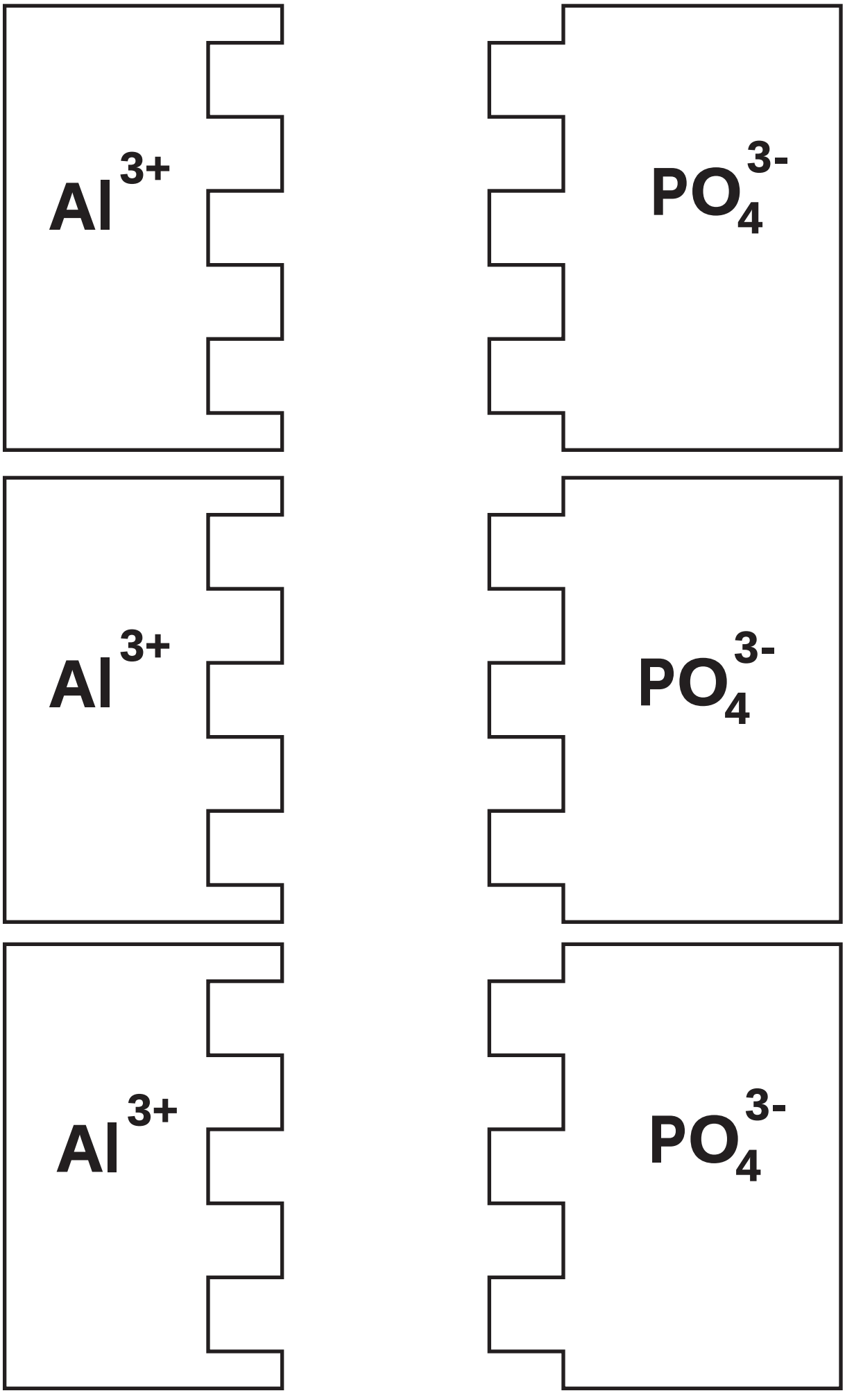

Ba^{2+}
SO_4^{2-}
Ba^{2+}
SO_4^{2-}
Ba^{2+}
SO_4^{2-}
Ba^{2+}
SO_4^{2-}


Ca^{2+}
S^{2-}
Ca^{2+}
S^{2-}
Ca^{2+}
S^{2-}
Ca^{2+}
S^{2-}


Al^{3+}
PO_4^{3-}
Al^{3+}
PO_4^{3-}
Al^{3+}
PO_4^{3-}