**Teacher Key**

1. For the following pairs of elements, draw a diagram showing only the outer shell electrons. Draw arrows to show how electrons will be transferred.
   1. Lithium, Bromine

Br

Li

* 1. Sodium, Sulfur

Na

Na

S

1. For the following pairs of elements, A) identify the ions that will form, and B) write the formula of the compound.
   1. Calcium, Oxygen
2. Ca2+ O2-
3. CaO
   1. Magnesium, Iodine
4. Mg2+ I-
5. MgI2
6. For the following compounds, write the formula.
   1. Potassium iodide

KI

* 1. Sodium oxide

Na2O

[2]

(1 point for correct ions drawn; 1 point for correct arrows)

[2]

[2]

A) is 1 point

B) is 1 point

[2]

A) is 1 point

B) is 1 point

[1]

[1]

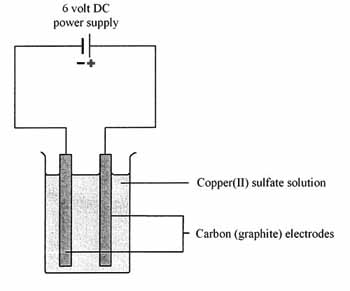
1. For the following compounds, write the name.
   1. Li2O

Lithium oxide

* 1. CaI2

Calcium iodide

1. On the diagram of an electrolysis apparatus,
   1. Mark the charge of each carbon electrode.

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**-**

**+**

* 1. Predict which ions will travel to the positive (+) electrode and which will travel to the negative (-) electrode. (Assume the solution is Copper (II) sulfate dissolved in water.: CuSO4 in H2Op)

Cu2+ will travel to the negative electrode

SO42- will travel to the positive electrode

[1]

[1]

[1]

[2]

(1 point for identifying the proper ions; another point for indicating correct direction)