



## Salts Worksheet

1. Write definitions for these key words:

Soluble \_\_\_\_\_

Insoluble \_\_\_\_\_

2. Fill in the boxes below to describe **how a soluble salt dissolves in water**. You can use written sentences, diagrams, symbols, numbers and key words.

In this box,  
describe what  
you can **see**,  
**observe** and  
**experience** with  
your own eyes.

In this box, describe  
what is happening to  
the atoms, molecules  
or particles **that are too  
small to see** with your  
own eyes.

In this box, describe  
the **state symbols** that  
we can use as  
scientists to  
communicate this  
topic.

3. Explain how dissolving is **different** to melting.

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4. Use the table below to state whether the following salts a) to j) are soluble or insoluble. Use 'I' for insoluble and 'S' for soluble.

Soluble in water	Insoluble in water
All nitrates	
Most sulfates	Lead sulfate, barium sulfate
Most chlorides, bromides and iodides	Silver chloride, silver bromide, silver iodide, lead chloride, lead bromide, lead iodide
Sodium carbonate, potassium carbonate	Most other carbonates
Sodium hydroxide, potassium hydroxide	Most other hydroxides

- a) Sodium bromide  
b) Sodium hydroxide  
c) Lead chloride  
d) Calcium sulfate  
e) Iron hydroxide  
f) Lead iodide  
g) Copper chloride  
h) Lithium carbonate  
i) Silver nitrate  
j) Sodium carbonate

5. Complete the general word equations for these reactions:

Metal + acid  $\longrightarrow$  \_\_\_\_\_ + \_\_\_\_\_

Metal oxide + acid  $\longrightarrow$  \_\_\_\_\_ + \_\_\_\_\_

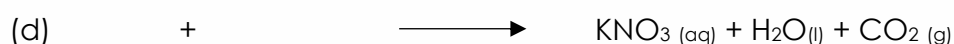
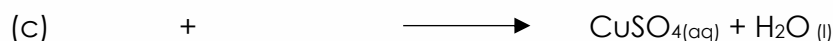
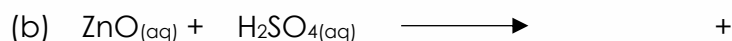
Metal hydroxide + acid  $\longrightarrow$  \_\_\_\_\_ + \_\_\_\_\_

Metal carbonate + acid  $\longrightarrow$  \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_

6. A chemist needs to make copper chloride and water. Write a word equation to show a reaction that produces copper chloride and water.

\_\_\_\_\_

7. Complete the symbol equations below. Make sure they are balanced.



8. A student needs to show that an insoluble base can be used to produce a soluble salt. Using the information in Q4, write a word equation to show an example of this reaction.

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