

Name _____

Period _____

Partner _____

Date _____

Activity Series Lab

Procedure

1. Wear safety goggles and follow all lab safety rules.
2. In a 24 well reaction plate, place approximately 25 drops of HCl in each of the 4 wells that are shown on the data table. Do the same for the other three acids.
3. Simultaneously drop one piece of each of the four metals into the HCl. Record the relatively rate at which the reaction finishes. Rank the metals (1-4), according to which reacts the fastest with "1" being the fastest.
4. Repeat for the other 3 acids.
5. Fill a fifth row with the acids and repeat the experiment using only magnesium. This time compare the relative strengths of the acids rather than the metals.
6. Using tweezers, pull out the pieces of metal and wrap them up in a paper towel and dispose of them in the trash. Wash the reaction plate with soap and water and dry it.
7. Clean your station.

Data Table

Table 1

Comparison of Metal Activities				
	Zinc (1)	Magnesium (2)	Copper (3)	Iron (4)
Hydrochloric acid (A)				
Sulfuric acid (B)				
Phosphoric acid (C)				
Acetic acid (D)				

Table 2

Comparison of Acid Activities				
	Hydrochloric Acid	Sulfuric Acid	Phosphoric Acid	Acetic Acid
Magnesium				

Post Lab Questions

1. Using the results of all the experiments, rank the metals in order of decreasing activity. Compare the list to one in your text. Are they the same?

2. Write balanced equations for all 16 reactions that happened

A-1	
A-2	
A-3	
A-4	
B-1	
B-2	
B-3	
B-4	
C-1	
C-2	
C-3	
C-4	
D-1	
D-2	
D-3	
D-4	