

Name\_\_\_\_\_

## Catalytic Spectrum Show Worksheet

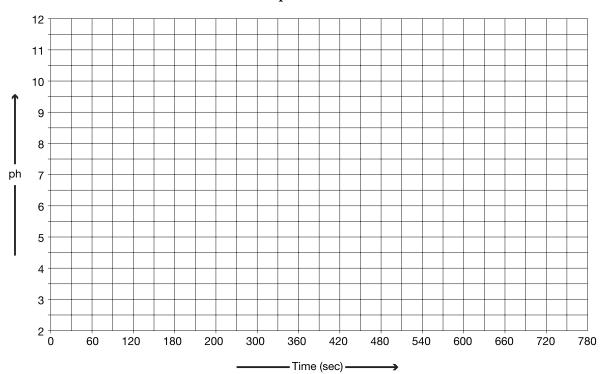
## Questions

1. Using a timer, record in the Data Table the time each color change occurs, corresponding to the chart colors.

Solution Color	pН	Catalyzed Time (sec)	Uncatalyzed Time (sec)
Purple	10.0	0	0
Blue	9.0		
Green	8.0		
Light Green	7.0		
Yellow	6.0		
Orange	5.0		
Red-orange	4.0		

2. On the graph below, plot pH versus time for both the catalyzed and the uncatalyzed reaction.

ph vs. Time



3. The overall balanced equation for this oxidation-reduction reaction is

$$S_2O_3^{2-}(aq) + 4H_2O_2(aq) \longrightarrow 2SO_4^{2-}(aq) + 2H^+(aq) + 3H_2O(l)$$

Write the half-cell reactions for oxidation and for reduction.