

# Fenton's Reagent Worksheet

## Observations

Solution	Initial Color	Final Color	Indications of a Chemical Reaction
Water, $\text{H}_2\text{SO}_4$ , $\text{H}_2\text{O}_2$ , $\text{Fe}^{2+}$			
Green Dye + $\text{H}_2\text{SO}_4$ , $\text{H}_2\text{O}_2$			
Green Dye + $\text{H}_2\text{SO}_4$ , $\text{H}_2\text{O}_2$ , $\text{Fe}^{2+}$			

1. What evidence from the demonstration leads you to believe the green food dye molecule was broken down in the reaction with Fenton's reagent?
2. Are the acid and hydrogen peroxide alone sufficient to oxidize the green food dye? Explain.
3. What happened to the fluorescence of fluorescein and quinine after reaction with Fenton's reagent in Part 2? Explain the observations in terms of the use of Fenton's reagent to destroy organic pollutants in soil and groundwater.