Can't Judge a Powder (E)

School: _____

Spring 2011 Invitational Events

Student #1 _____

Lisle Jan 29 2011

Student #2 _____

Question - Scoring Sheet

Team # _____

Questions:							
	Mark with the LETTER of the question, the SINGLE BEST observation that answers that question.	Allotted Points					
Observations based on the powder alone.							
Question A	There were 2 tags on your bag. What did the tag say that did not have your school name on it?	5	4	3	2	1	0
Question B	What color is the powder?	5	4	3	2	1	0
Question C	What is the appearance of the sample?	5	4	3	2	1	0
Question D	What are the weight and volume for a sample of this powder?	5	4	3	2	1	0
Observations based on the aqueous (water solution) of the powder.							
Question E	What is the color of the cold aqueous solution of this powder?	5	4	3	2	1	0
Question F	How soluble is the powder in hot water?	5	4	3	2	1	0
Question G	What is the conductivity of the deionized water?	5	4	3	2	1	0
Question H	Does a solution of the powder and water show high, medium, low or no conductivity.	5	4	3	2	1	0
Question I	Is this solution acidic, basic, or neutral?	5	4	3	2	1	0
Observations based on a sample of the powder and NaOH (sodium hydroxide) or HCl (hydrochloric acid).							
Question J	When you added the powder to 1M NaOH, what was the color of any remaining undissolved material?	5	4	3	2	1	0
Question K	What was the color of the solution when the powder was added to 1M HCl?	5	4	3	2	1	0
Observations based on a sample of the powder and other test reagents.							
Question L	How much of the powder dissolved in the 91% isopropyl alcohol?	5	4	3	2	1	0
Question M	What color is the copper(II) nitrate, $Cu(NO_3)_2$?	5	4	3	2	1	0
Observations based on the addition of the Phenol red to the aqueous solution of the powder.							
Question N	There is reaction when the powder is added to the copper(II) nitrate. What is the color of the resulting solution?	5	4	3	2	1	0
Question O	What is the original color of the phenol red indicator?	5	4	3	2	1	0
QuestionP	What is the color of the solution of the powder, water, and phenol red indicator?	5	4	3	2	1	0
Observations from the demonstration of the reaction of the powder with concentrated sulfuric acid.							
Question Q	Describe what happened to the powder when sulfuric acid was added to the powder.	5	4	3	2	1	0
Question R	Use this to mark your best observation that you have not marked above.	5	4	3	2	1	0
	Total						