Graphing Challenge-

Oxygen can be generated by the reaction of Hydrogen Peroxide with Manganese Dioxide.

$$2H_2O_2 + MnO_2 \longrightarrow 2H_2O + Mn + 2O_2$$

A chemistry class sets up nine test tubes and places different masses of MnO2 in each test tube. An equal amount of H2O2 is added to each test tube and the volume of gas produced is measured each minute for five minutes. The data from the experiment is:

Tube #	MnO ₂ (g)	1 min (ml O ₂)	2 min (ml O ₂)	3 min (ml O ₂)	4 min (ml O ₂)	5 min (ml O ₂)
1	0.1	1.4	2.6	3.5	4.2	5.1
2	0.2	2.8	4.6	5.8	7.1	7.6
3	0.3	4.9	7.2	8.8	10.2	11.3
4	0.5	5.9	8.5	10.4	11.8	13.3
5	1.0	8.5	12.4	14.4	16.1	17.1
6	1.5	11.0	14.8	17.5	19.8	21.8
7	2.0	12.0	17.0	20.2	22.7	24.8
8	2.5	13.6	19.0	22.1	24.7	27.3
9	3.0	16.2	21.8	25.1	28.2	30.4

- 1. Graph the data for the effect of the amount of MnO₂ using a line graph.
- 2. Be sure to include a title that contains elements of both the manipulated variable and the responding variable. (manipulated = independent; responding = dependent)
- 3. Make sure to label the X and Y axes (including units) and ensure that if multiple lines are used that a key/legend is present. (Include equation & R square value for Tube 1 & 9)
- 4. Include your name and period. Print and turn in on due date.