

Name: _____ Per: _____ Date: _____

Graphing and Experimental Design Review

DIRECTIONS: Answer the questions below based on the experiment and graph the data accordingly.

Last summer biology students wanted to find out if adding fertilizer to some potting soil would affect the germination of radish seeds. Each student added an equal amount of potting soil from the same bag to each 10 cups. Student A added 1 gram of fertilizer to each cup of soil in group A. Student B added 2 grams of fertilizer to each cup of soil in group B. After stirring the mixture to obtain an even distribution of fertilizer, 8 radish seeds were placed in each cup and covered with 0.5 centimeter of soil. Over the next 6 days, all conditions, including the amounts of water and sunlight, were kept the same. The results are recorded in the data table below.

Data Table

Total Number of Seedlings
Visible Above the Soil

Days After Planting	Group A	Group B
1	0	0
2	5	7
3	10	14
4	17	24
5	20	40
6	30	52

1. Why do we graph data? _____
2. Write a title for the graph on the space provided.
3. What is the independent variable? _____
4. Dependent variable? _____
5. Use the data table to label the axis.
6. Plot the data according to the data table. Follow the key.

7. In relation to the scientific method identify the following:

a. Problem: _____

b. Hypothesis: _____

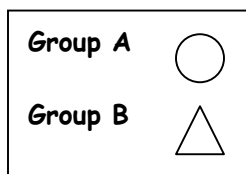
c. Control Group: _____

d. Experimental Group: _____

e. Write a conclusion based on the data: _____

8. How can you make this experiment more valid? _____

Key



Example:

