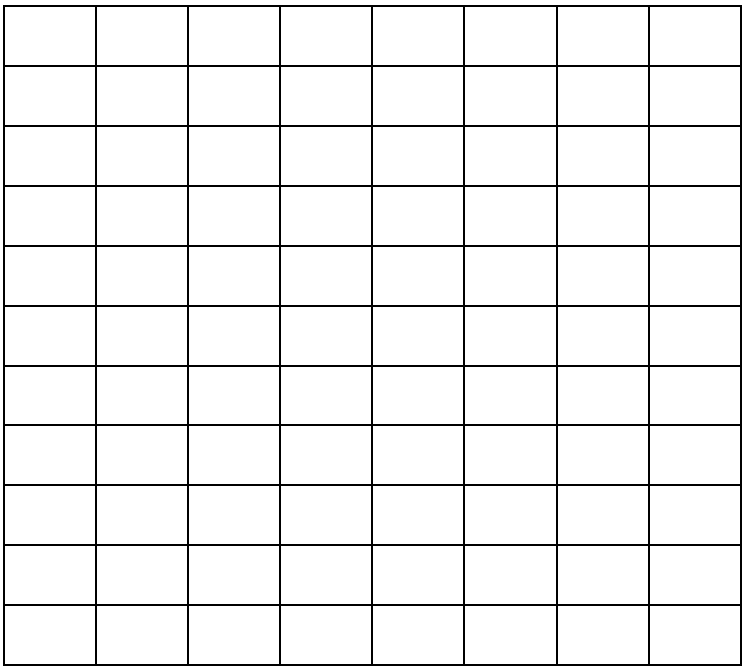
Name _____ Date _____ Period _____

Effect of Saline Water on Seed Germination

Data Analysis- Graph the percent of seeds germinating each day at each concentration. This is a line graph with each concentration being a different colored line. You will be graphing 5 different colored lines. One line for each concentration.
X Axis= Time in days Y Axis= % Germination

Title: _____



Key: (identify the color of each line)

Control: 0 mg/L=

Experimental: 100 mg/L=

250 mg/L=

1000 mg/L=

3000 mg/L=

Analysis:

1) Compare the slopes of the lines that you see on your graph. The steeper the slope the higher the rate of germination at that concentration. In which concentration of salt did the greatest percent of seeds germinate the fastest?

2) Which concentration of salt caused the lowest % of seeds to germinate?

3) Between which two concentrations of salt do you see the biggest impact on the germination rate of the seeds?

4) How does salt affect seed germination rates?

5) What happens in the cells of the seeds when they are exposed to high levels of salt?

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Soil salinity causes severe problems in agriculture worldwide. Detrimental effects of high salinity on crops affect plants in a variety of ways and as a result, plant growth, development and survival are reduced. Additionally, natural vegetation of salt-affected areas is destroyed or damaged when salt concentration is too high resulting in major changes to landscape and biodiversity. Areas impacted by high salt concentrations include remaining natural habitat in many agricultural areas and developed areas such as parks in Montgomery County, and the fragmentation of many wildlife corridors.

Ecosystems around your home and school are impacted by salt runoff from winter-time road treatments every year. **Make a claim about how repeatedly using road salts to melt ice on the roads will affect these ecosystems over tim**e.

Claim A claim is a statement about what happened	

Use evidence (from the lab you just completed, as well as online sources) and reasoning to support your claim.

Evidence Evidence uses **NUMBERS with UNITS** from your graph to support your claim	
Reasoning Reasoning uses **science** to explain **WHY it happened.**	