Lab Template

Text: Cord
Volume: _____ Chapter: ____4.4 _____
Unit number: _16__ Title of unit: ___Graphing linear equations
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Attach the Following Documents:

1. **Lab Instructions**
2. **Student Handout(s)**
3. **Rubric and/or Assessment Tool**

Short Description (Be sure to include where in your unit this lab takes place):

After the introduction of graphing data to generate a set of points the slope of which can be calculated, students gather life span data from different decades from headstones in the local cemetery. They then plot the data by decade to see if life expectancy has actually increased since the mid 1800's

Cemetary Project: Are we really living longer now?

LAB PLAN

TEACHER: *(Teacher Prep/Lab Plan)*

- **Lab Objective: to give students experience in collecting data in the field and analyzing it for significant trends.**

- **Statement of prerequisite skills needed**: Be able to develop point-slope equations from data sets and show how slopes of different lines compare, and how to apply slope-intercept form as well.

- **Vocabulary:** Life span, life expectancy

- **State Standards addressed**

Unit 16 A1.4.B: Write and graph an equation for a line given the slope and the y-intercept, the slope and a point on the line, or two points on the line, and translate between forms of linear equations.

- **Teacher Preparation:** *(What materials and set-up are required for this lesson?)*
  - Materials: Cemetary maps with the Dates by area for the cemetery, T-bar graphic organizer for data collection
  - Set-Up Required: Field trip paperwork, data sheets

- **Lab Organizational Strategies:**

- Students work in pairs, one reading birth and death dates, the other recording dates as they are called
- Leadership given for students exploring county records or extending their field search after class.
- Cooperative Learning: Students will work in teams and then bring their data back to the class for class-wide discussion of life expectancy trends
- Expectations: Each team of 2 will collect birth and death date for 30 people and bring these data back for analysis
- Time-line: One Class period for field work, 2 periods to convert dates to usable form and present the graphs of the data

- **Post Lab Follow-Up/Conclusions** *(to be covered after student completes lab)*
  - Discuss real world application of learning from lab: Are we living longer these days than we were in the "old" days? Why or why not?
  - Career Applications: Health care impacts on society: Is our community getting "older" as a group?