Edward R. Murrow School Mr. Sprague & Ms. Vogel

Format: 7 multiple choice questions and 1 graph

Concepts to Review:

• Scientific Inquiry Skills

- o Understand the terms hypothesis, independent variable, dependent variable, control, and placebo.
- o Be able to explain how scientific ideas are different from ideas in other subjects (see Homework 2).
- o Be able to identify the independent and dependent variables in an experiment.
- o Be able to write a hypothesis in "If... then..." form.
- o Be able to identify the control group and the experimental group in an experiment.
- o Be able to identify factors that must be kept the same in both the control and experimental groups.
- o Be able to design a scientific experiment (see Homework 4 and classwork).
- o Be able to explain why it is important to repeat an experiment and use many test subjects.

Lab Skills

- o Be able to describe some lab safety rules (Lab 1).
- o Be able to construct a line graph and a bar graph (see Homework 5 and classwork).

Practice Quiz Questions:

- Visit the "Practice Exam Questions" page on the course website at www.spraguescience.com.
- Click on "Scientific Inquiry and Experimental Design Exam" and download the file.
- Try questions 1, 2, 6, 7, 8, 10, 12, 13, 19, 20, 21, 24, 25, 37, and 38 without looking at your notes.
- Click on "General Lab Skills: Graphing, Measurement, Microscopy Exam" and download the file.
- Try questions 20, 21, 24, 25, 28–34, 37, and 38 without looking at your notes.
- Check your work to both question sets by downloading the answer keys.