Sci 465 – Final Exam Study guide

Exam 1 questions:

- Describe what the doctors/scientists do who conduct IVF (In Vitro Fertilization). Do they "build babies", if so how do they do this?
- Explain the difference between resonance and sympathetic vibration.
- When we did the activities with the straw instrument, bottles, cup instrument, and guitars in class, what was scientific about our investigations? What exactly did you do that was part of the scientific process? Be specific and mention every aspect.
- What does the cube activity and the work that seismologists do have in common?
- If a scientist has a scientific model that s/he uses to understand a phenomena and it's close to fitting real live results but not exactly right, is the model still useful? Why or why not? Use examples from this class to defend your answer.
- Name a relatively "young" science that has been discussed in this class and what is fundamentally "new" in the field?
- Review Quiz 2
- Review Quiz 4

2nd half goals

- Be able to describe the three main states of matter and how they differ.
- Describe the conservation of energy and provide examples of its use in the different disciplines of science.
- Be able to predict where the speed of an object (for example skater on a track) is the highest and where it has the most potential energy.
- Be able to draw a graph of potential energy and kinetic energy of an object moving along a track.
- Be able to describe how the Calories in food are measured.
- Be able to describe how echolocation works (see quiz 6)
- Be able to describe various characteristics of eating and exercise (see Quiz 8)
- Be able to describe the function of our eyes that allows us to see after images.
- Be able to describe the point of doing the "Dr. Willis' Wonderful Library" activity.
- Describe the role of an hypothesis in science.