



Physics Final Review Sheet

The final will be the same format as first semester, but will be given on the computer. Thus on final days, **report to the library.**

Final dates:

Periods 1,2, and 3: Monday, June 15th

Periods 4,5, and 6: Friday, June 12th

Questions to Answer (you should answer these on a separate piece of paper).

Mechanics:

What is frame of reference? What is the difference between average and instantaneous speed? How is speed calculated? What 2 piece of info do you need to calculate speed--- acceleration---force---work? How does acceleration relate to speed? What is the acceleration due to gravity? What does acceleration due to gravity mean? What are Newton's three laws? What is inertia? How does inertia relate to things you encounter in everyday life? What are some forces that act on objects? What does it mean for an object to be accelerating? What causes an object to accelerate? What is an example of an action-reaction pair? What is "work" in the scientific sense? What are the six types of machines? Can you identify types of machines in pictures? What do machines do to the work equation? What is the "trade-off" in machines?

Optics:

What makes something appear to be a certain color? How do filters work? What are the two types of waves? What is a nanometer? What is the electromagnetic spectrum? How is it organized? What types of bulbs give off which types of EM spectrum waves? What are some of the other types of waves in the EM spectrum? Why is the visible light spectrum visible to us? What is reflection? What laws are true about reflection? Can you draw ray diagrams for specific angles of incidence?

Electricity:

What are some different ways electricity can be generated? How does a generator work? What is the difference between renewable and non-renewable resources? How does nuclear power relate to chemistry? How does hydroelectric power relate to potential and kinetic energy?

I would highly encourage you to gather up any graded handouts we have done this semester and to have them in class with you on Wednesday this week.

Over→

How to review:

1. Start by looking at chapter headings in the textbook on page v. (This final covers chapters 10-12, 14, and 15). See if you can remember when we covered that particular topic. Maybe you can also remember one or two labs we did that addressed that topic. You can also look at the “calendar” section of my website. What we have done and when we did it is all catalogued there for you to refresh your memory.
2. Look within a chapter at the section headings. See if you remember the point being made. If you do not, reread the section or skim it.
3. Gather up all of your old lab handouts and look at the post-lab questions. Figure out which category the lab fits into (see the questions above). Reread the introductory paragraphs on those labs. These paragraphs are **great** short summaries of the concept the lab covered.
4. Flip back through your composition book. See if you can match a set of notes to a topic above. See if you remember why we took a particular set of notes.
5. Closely reread your *lab report format sheet*, and the *lab report scoring rubric*. You might think about visiting my website to a look at a *sample lab report*.
6. Look at the bold-faced vocabulary words in the appropriate chapters. With a partner, see if you can define the words. If you cannot, look up the word *in that section* rather than in the glossary. You will learn more by rereading the section than you will by looking in the glossary.
7. Look at the chapter reviews. With a partner, see if you can verbally answer the questions.
8. Look at the Washington education website:
<http://www.k12.wa.us/assessment/WASL/Science/default.aspx> . Look at the released items and the “powerful classroom assessments.” This will give you a good idea of the structure of the writing portion of this final.

Things to consider:

- You all have online textbook access. The login is available on my whiteboard. The website is linked from my class website.
- Research shows that people who study do better on tests. Research also shows that most students don’t really know how to study. More research shows that because students don’t know how to study, they typically don’t think studying will help them do well on tests. I’ve given you 8 ways to study above..... try to study using my 8 tips above and see if you don’t feel better about how you did on the test.
- The earlier you start studying, the more opportunity you have to ask questions about things you have forgotten or didn’t really ever understand.
- Studying alone, as well as with a partner, often helps.
- All of these tips apply to other classes as well, and are not specific to science.