

Tuesday, May 28/13
Science 122

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| Announcements |
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**** Need an activity re a course topic before the end of May.**

1. Exam Review - Optics
 2. Worksheets (3) - Redox Tables, Predicting Entities and Predicting Redox Reactions
 3. Redox Reactions and Titrations - **3 Lab Exercises**
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4. Redox Numbers
 5. Using Redox Numbers to Balance Redox Reactions



Exam: Outline - Optics

- Law of Reflection
- Snell's Law (Refraction)
- Plane Mirror: ray diagram and POST
- Spherical Mirrors: concave (converging) and convex (diverging)
 - labelled ray diagrams and POST
 - mirror and magnification equations (sign conventions)
 - fun house mirrors
- Lenses: index of refraction
 - convex (converging) and concave (diverging)
 - labelled ray diagrams and POST
 - lens and magnification equations (sign conventions)
 - double lens problems

Exam: Outline - Magnetism

- magnetism
- magnetic domains
- magnetic field lines (N \rightarrow S)
- RHR/LHR's #1, 2 and 3
- symbols: in and out of page
- parallel wires
- electric motor: decide direction of armature or I
- force acting on a straight wire
- force acting on a single charged particle
- radius of a single particle in a uniform magnetic field
- velocity selector (perpendicular B and E fields, v)
- mass spectrometer (q to m ratio)
- electromagnetic inductance
- Lenz's Law
- EMF
- Ohm's Law
- self-inductance and mutual inductance
- transformers (primary and secondary coils, turns ratio, power)