

April 2, 2012

1. Mirror Extra questions

2. Magnification Equation - Relationship between distance and height
negative sign - behind mirror - virtual
- upside down

3. Textbook Questions

$$M = \frac{h_i}{h_o} = -\frac{d_i}{d_o}$$

April 3

1. Magnification Equation Homework check (pg 505: solutions)

2. Magnification Worksheet

3. Mirror Equation

$$\frac{1}{f} = \frac{1}{d_i} + \frac{1}{d_o}$$

4. New Worksheet

- Find the image + mirror equations

April 4

1. Wrigley's field trip

- collect data + stories

- hand in a summary of the day

- include the lessons you learned and

1 graph of two variables that exhibit a trend

2. For people missing trip

- climate change journal "Where is the evidence"

April 5

1. Discuss Wrigley's expectation - assessment

- Need to have a student write optics test

2. Concerns about worksheets?

3. Making a note on section 11.2: Refraction

April 10

1. Collect Wrigley's Journal - by end of week

2. Discuss concerns - Problems with formulas
- Sign conventions

3. Lenses / glasses + "Seeing"

April 11

1. Determining Focal Length

- start with focal length determination outside
- Set up equipment

Determine focal length + magnification
using candles + rulers

2. Write up - Title

Purpose

Observations

Calculations - focal length (x3) + Avg

- Magnification (x3)

- h; using magnification (x3)

- Percent Error (x4)

Sources of error (x3)

April 12

1. Discuss homework - Refraction

2. Snell's Law + questions

April 13

1. Concerns with Snell's Law

2. Total Internal Reflection
Critical Angle

3. 2 page Worksheet

April 16

1. Snell + Critical Angle Concerns?

2. Distracted with a question about wind

3. Lab on Mirror Focal length due tomorrow

4. Drawing Ray Diagrams

April 17

1. Drawing Ray Diagrams and equations

2. Math for Lenses



$$\frac{1}{f} = \frac{1}{d_i} + \frac{1}{d_o} \quad M = \frac{-d_i}{d_o} = \frac{h_i}{h_o}$$

April 18

1. Math Concerns ??
2. Visualizing Refraction (3 angles)

Refraction lab

- white paper ray boxes, blocks of glass
- need protractors

April 19

1. The Eye
- Video - dissection

2. Worksheet

3. Handout Review sheet

April 23

1. Go over Unit material
- teacher talk

2. Concerns about review sheet?

3. Suggestions about what to review

April 24

★ Review / Work Period

April 25

Unit Test Optics

April 26

1. Intro to biology

2. Vocabulary - it is like a new language
- lots of memory work

3. Systems Biology

- A) Define systems biology
- B) Characteristics of life
- C) The Cell Theory

April 27

- (A) Levels of Organization
- (B) Types of Cells
- (C) Cell Anatomy + Function
- (D) Microscope Parts, Magnification, Resolution, Contrast
- (E) Electron Microscopes

May 1

- 1. Using the Microscope
 - Field of View
 - Prepared Slides

May 2.

- (1) Rules for Drawing Images
- (2) Making a Wet Mount
 - onion cell, cheek cell, pond water
 - methylene blue, Iodine
- (3) Make 1 drawing of 1 object properly labelled

May 3.

1. Cell Division

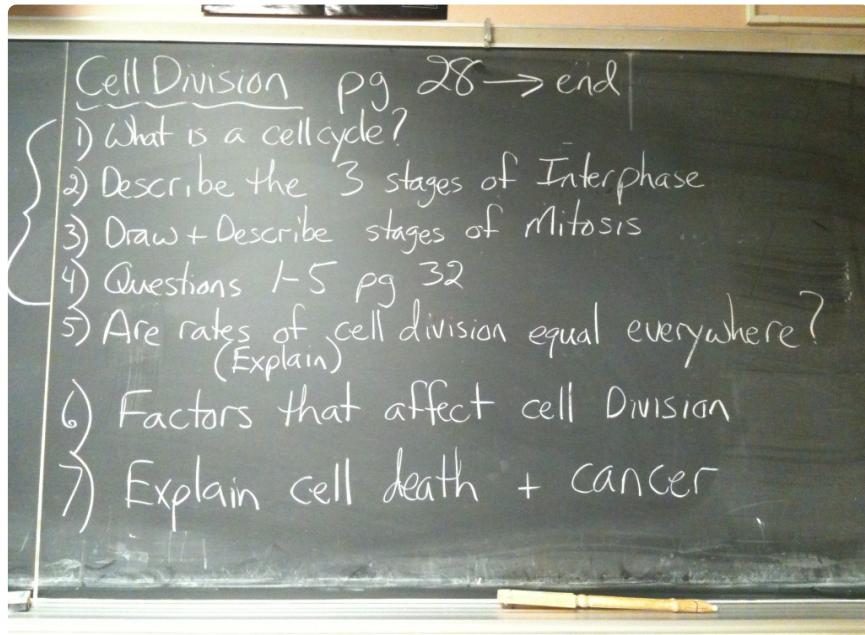
Watch an animation

Discuss cell division

Discuss why cells need to divide versus getting bigger

Surface area versus volume comparison

Make a note:



May 4.

1. Discuss cell division note
2. Stages of mitosis and estimating length of time that each stage exists in
Gizmos and bar chart
2. Cancer and cell death

May 7.

1. Micro-slides of mitosis - animal and plant
2. Make sure 1.1 and 1.2 are done
3. Read page 40 - 45 questions on page 41 and 45

May 8.

1. Note on section 1.3
2. Stem cells and meristem
3. Types of animal and plant tissue
4. Textbook work

May 9.

1. Discussion of tissues
2. Lots of body questions

May 10.

1. Common animal organs
 - Skin
 - Lungs
 - Heart
 - Digestive organs

2. Labelling organ diagrams and answering questions about the organs

May 11.

1. Body atlas video - skin with video sheet
2. Complete worksheet on organs
3. Prepare for quiz on monday - terms of chapter 1
 - Eyeball dissection?

May 14.

1. Quiz on ch 1 terms - take up in class
2. Video "Breath of life" with worksheet

May 15.

1. Review of the structure of the heart right vs left, sounds = valves
2. Video the human pump with worksheet
3. Handback optics unit test

May 16

1. Handback ch 1 terms quiz
2. Digestive system video and worksheet
3. Other major body systems

May 17.

1. Plant organs
2. Plant organs worksheet
3. Homeostasis - talk and worksheet

May 18

1. Medical imaging technologies worksheet

May 22.

Check work completed
Discuss any concerns

May 23.

Worm Dissection with worksheet and eyeball dissection

May 24

Public health strategies
Ethical issues in systems

May 25

Review period for systems biology

May 28-29

"The island" with video sheet

May 30

Review/catchup

May 31

Unit 3 test - systems biology

June 1

David attenborough climate change video