

## Grade 10 applied Science

Our Goals: #1 - PASS This Course

#2 - Learn New Things about Science

#3 - Balance our Priorities

#1 - Attend class and be prepared

- Respect the Learning Environment

#2 - Listen and ask relevant questions

- Practice and review the work done in class

#3 - Complete your assignments

What do  
these mean

Resources: Online Textbook, Class handouts, AGENDA

Homework: Get ready for class - Prepared!

Visit my website

Date Feb 7, 2012

What is Science?

The Scientific Method - Know the steps

Skills of Science - Handouts from Blackline Masters

Textbook Reference - Appendix

McGraw Hill Textbook Handout (optional)

Homework

Practice / Finish Worksheets

## STEPS OF SCIENCE

-covered 1-5, need to start with Variables tomorrow

Date Feb 8

## Experiment Variables

Independent or Manipulated

Dependent or Responsive

Controlled

DATA / GRAPH

Discussion

Conclusion

Eyes of Nye

- Pseudoscience

- Worksheet

Date Feb 9

1.) Homework Questions (3)

- take up and collect

2.) Questions on the board

- Use for experiment questions

- make up your own (I need to make them)

3.) Design your own experiment

Summative assessment for Scientific Method

Due Feb 15

## Unit 1: Optics and Light

A) What is Light?

- how do we know it is a form of Energy?

B) Producing Light

Luminous vs Non Luminous, Types

C) Model of Light

WAVES!

Did +

Do

1. How can we use a wave as a model for light? wavelength, energy, amplitude

2. Producing Light

- luminous vs non luminous

- incandescent, fluorescent

- Energy transformations

3. Electromagnetic Spectrum

- Energy vs Types

Homework: Worksheets

## Review E.M.S.

- types, uses, energy

## Sources of Light

- Reading handout
- Complete definitions
- Crossword of terms

## Video: CBC - Light

- Slowing light, Crime Scenes, Photosynthesis

## Sources of Light Crossword check

Ray Model of light

Light interacting with matter

Opaque, transparent, translucent

Reflection, Refraction, Absorbtion, Transmission

Luminous, Non Luminous

1. Worksheet on rays of light

- terms

2. What is colour?

3. Making Colour

Subtraction Colour Theory

Addition Colour Theory

4. Colour ppt

5. Worksheets

1. Colour Worksheet

2. Law of Reflection

3. Types of mirrors

4. Worksheet - reflection

- image characteristics

- Terms

Date Feb 21

## 1. Making Images in mirrors

## 2. Plane Mirrors

object

Image

## 3. Shadows

- Application of ray diagrams

Umbra

Penumbra

1. Shadow parts?

2. Ray diagrams with Plane Mirrors

\* How does an image form? converging light rays

~~3. Raydiagrams with concave mirrors~~

3. Practice with Plane Mirrors

Date Feb 23

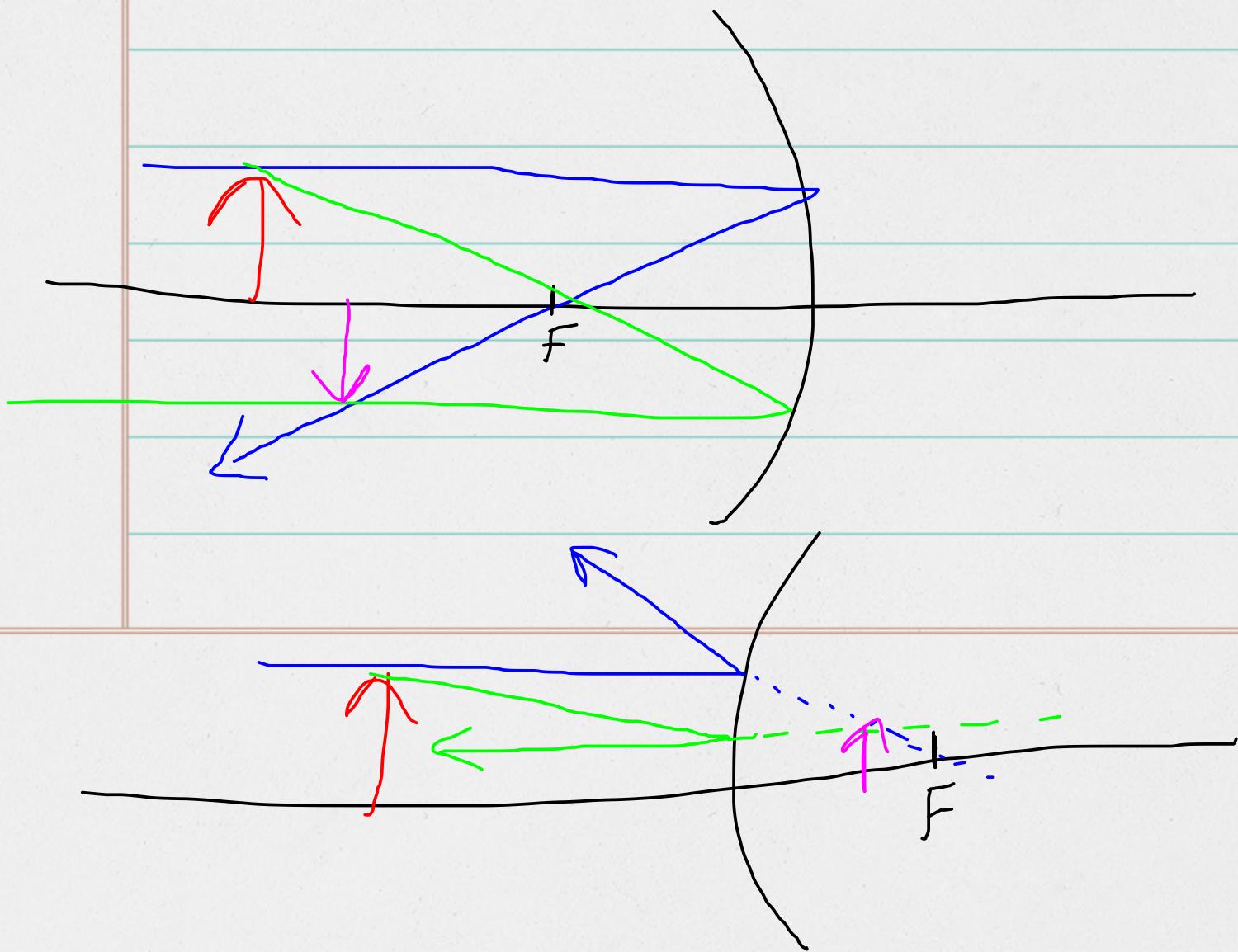
## 1. Plane Mirror Image Characteristics

## 2. Concave Mirror Parts (labels)

## 3. Images in Concave mirrors

## 4. Convex Mirrors

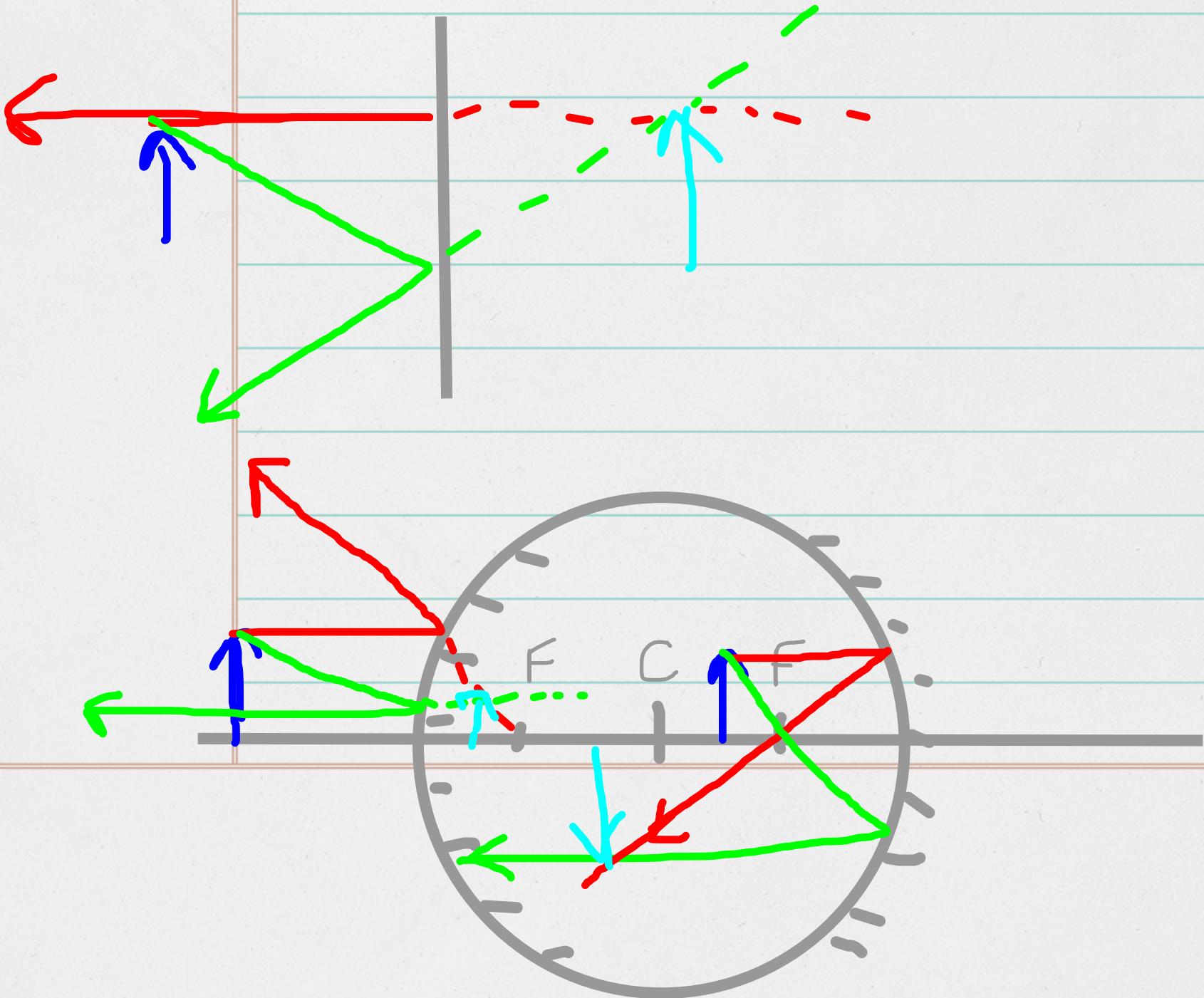
Images formed by convex mirrors



1. Images in mirrors - Review

2. Optics + light Video

3. Review Sheets – textbook pages



## 1. Review - light - Model - properties

- colour - addition  
- subtraction

- mirror - reflection

- CONCAVE, CONVEX, plane

## 2. Refraction

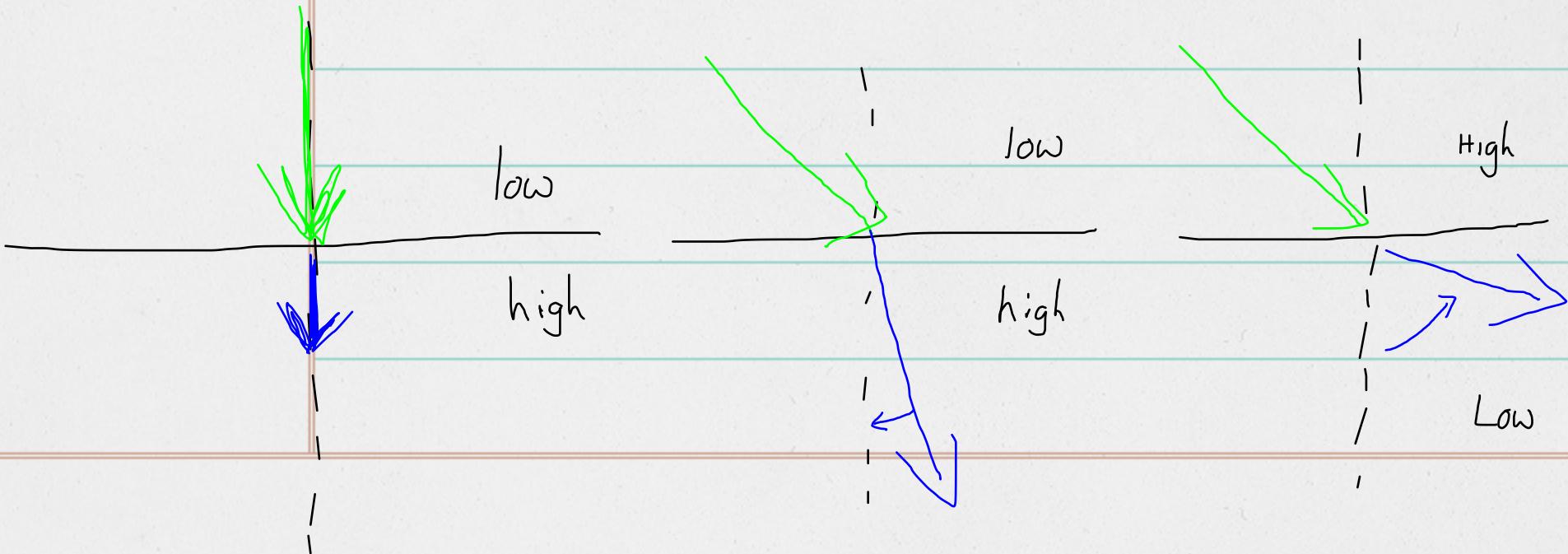
- Definition

- Computer Models [Gizmos]

- Medium

- Density + speed

- ray diagrams - different mediums



\* Take up Homework

Date

Feb 28

## 1. Review Mirrors + Images

## 2. Gizmos with mirrors vs lenses

## 3. Lines are the same - two focal points

## 4. Convex vs Concave

Convex = converging



Concave = diverging



1. Review Homework

2. Applications of Lenses

3. The Eye

- Structure + Functions
- problems

TOMORROW!

★ focused on ray diagrams

- Worksheet  $\Rightarrow$  lenses + mirrors

Date March 1

1. Ray diagrams (mirrors vs lenses)

2. The Eye

Read article + answer questions

3. Video - The Eye

1. Discuss material/questions on Unit Test

2. Website review?

3. Textbook's review

4. Invisible Worlds : Video

1. What do we know about this unit?

2. Invisible Worlds - Video

3. Practice questions !!

Date

March 6

1. Work on Review

2. Invisible Worlds

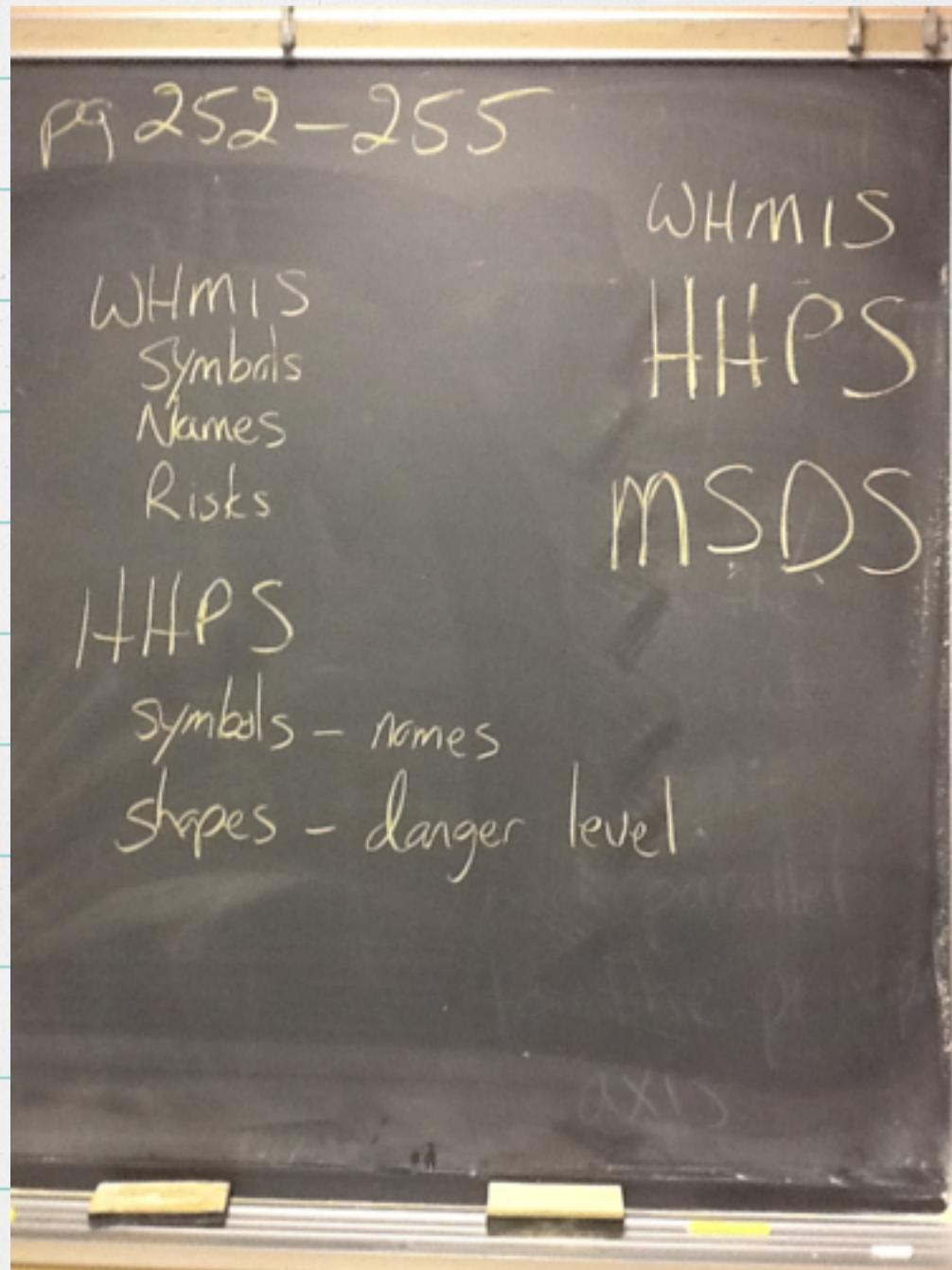
Date March 7

Unit 1 test !!

- need rulers
- Scantron card

Date March 8

## 1. Chemical Safety



## 2. SpongeBob Safety Sheet

Date March 9

# 1. Invisible World

Finish Video!