

# **WELCOME TO CHEMISTRY WITH MRS. MARKS**



# LEARNING TARGETS

- I understand that it is okay to make mistakes in chemistry class, but I should learn from those mistakes.
- I understand that I should never stop trying.
- I can explain all classroom policies and procedures.
- I can identify and describe the purpose of all laboratory equipment.

# LEARNING CHEMISTRY

## Nine-Point Problem

Can you connect the nine points with 4 straight lines without lifting your pencil?

•••

•••

•••

# LEARNING CHEMISTRY

## Nine-Point Problem

Can you connect the nine points with 4 straight lines without lifting your pencil?

•••

•••

•••

# LEARNING CHEMISTRY

## Nine-Point Problem

Now try connecting the points with only 3 lines.

•••

•••

•••

# 12-Point Problem

Applying what you've learned!

What is the least number of straight lines necessary to connect these twelve dots without lifting your pencil?

••••

••••

••••

# 12-Point Problem

Applying what you've learned!

What is the least number of straight lines necessary to connect these twelve dots without lifting your pencil?

••••

••••

••••

# What are your thoughts regarding chemistry?

- Your experience learning chemistry may be like these exercises
- You may have an underlying assumption of the problem causing you to unconsciously confine the 9 or 12 dots





# Chemistry can be easy if...



- you recognize that you are unconsciously confining the problem making it impossible to solve
- you do not confine your concept of chemistry to a preconceived attitude that learning chemistry will be difficult
- you choose positive associations for your concept of chemistry



But most of all....

KEEP AN OPEN MIND



# KEYS TO SUCCESS IN CHEMISTRY

- STUDY REGULARLY AND OFTEN

- disciplined study habits

- do not “cram”

- review on a daily basis

- do not become complacent



# KEYS TO SUCCESS IN CHEMISTRY

- USE THE OBJECTIVES

- be sure “you can” complete *all* learning targets
- exams/quizzes are always based on learning targets
- make your learning more efficient & focused



# KEYS TO SUCCESS IN CHEMISTRY

- LEARN THE “LANGUAGE” OF CHEMISTRY

- keep up with the key terms
- ask if you don't understand
- chemical formulas and math equations are also part of the “language”



# KEYS TO SUCCESS IN CHEMISTRY

- READ THE TEXT
  - enhance your comprehension
  - write down questions & ask in class



# KEYS TO SUCCESS IN CHEMISTRY

- DO THE HOMEWORK

- chemistry is not a spectator sport
- work ALL assigned problems
- practice additional problems



# KEYS TO SUCCESS IN CHEMISTRY

- WORKING PROBLEMS
  - do not memorize problems
  - understand how to develop a solution





# KEYS TO SUCCESS IN CHEMISTRY

- GET HELP EARLY

- review day is too late

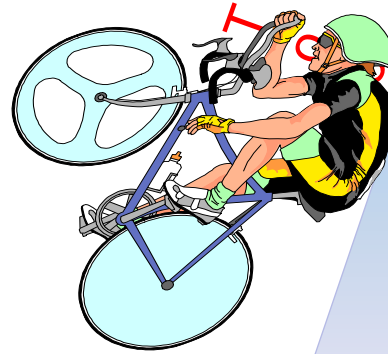
- chemistry is cumulative knowledge

- build a strong foundation



# Learning at too steep of a pace

A more gradual approach gets farther



steepest of a pace

# Learning at too steep of a pace

- If learning is done in a step by step fashion, it is easy.



# Learning at too steep of a pace

- If steps are skipped, then there is a complaint that a certain step is too difficult.

?#@!!



# Learning at too steep of a pace

- How do you get past this barrier?
- Return to the step you were doing well and then proceed by making sure you do each step.

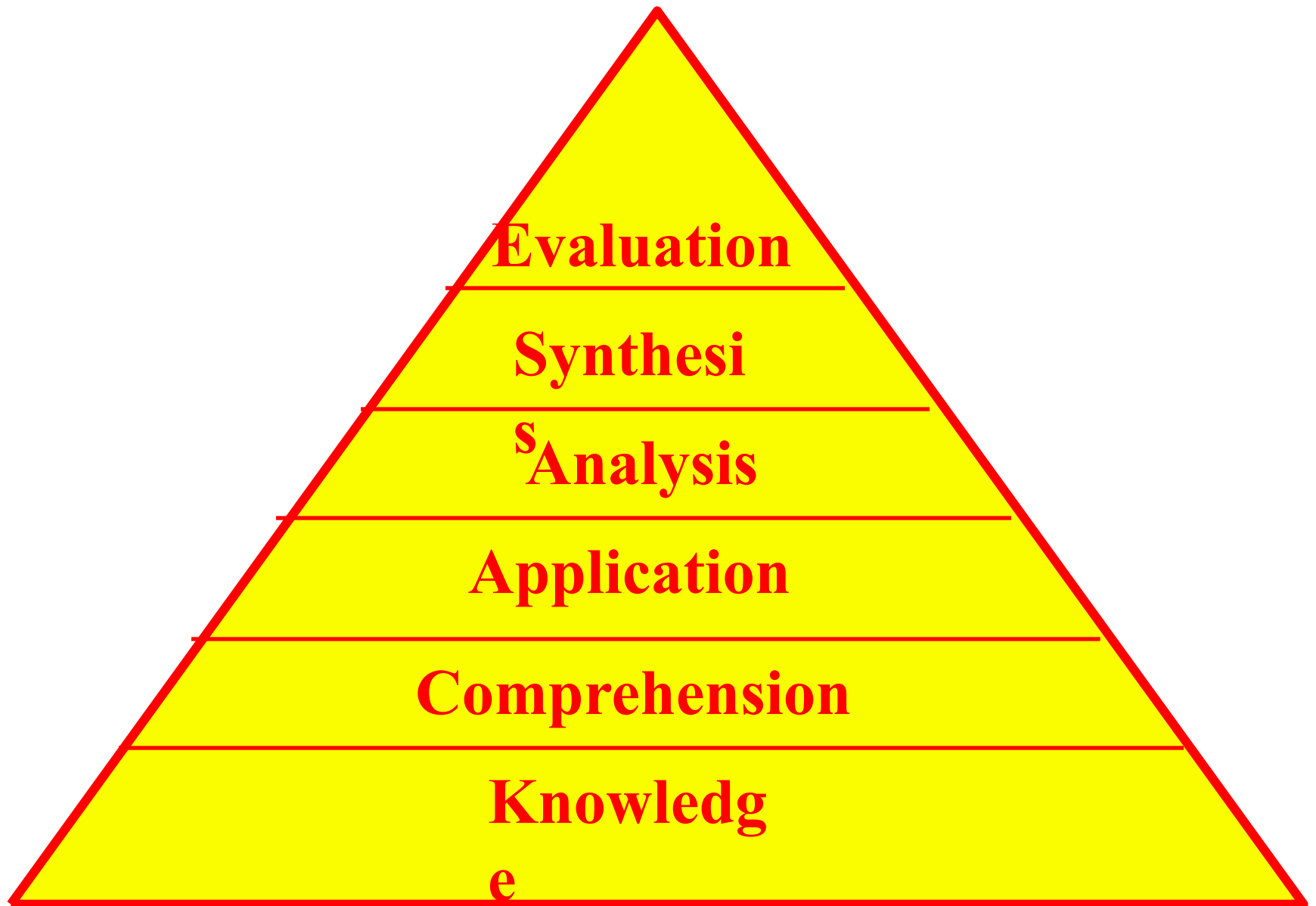


**CHEMISTRY IS HARD!**

**WHY?**

# BLOOM'S TAXONOMY

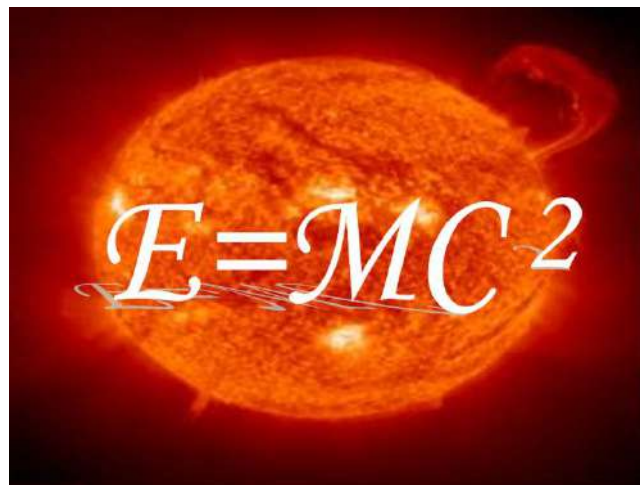
- KNOWLEDGE – memorizing textbook definitions
- COMPREHENSION – putting knowledge in own words
- APPLICATION – using the information in new situations
- ANALYSIS – breaking the information into meaningful pieces
- SYNTHESIS – using information to generate new knowledge
- EVALUATION – making judgments about the value of ideas or information





WHAT DOES THIS HAVE TO  
DO WITH CHEMISTRY?





- In the past, many of your classes required “knowledge” and “understanding”
- Chemistry requires you to use all levels of Bloom’s taxonomy, but mostly focuses on the higher levels
- You will learn many new processes and techniques and then be required to apply them to new situations

# WORD CLUES



- Knowledge
  - list, define, tell, describe, identify, show, label, collect, examine, name, who, when, where
- Comprehension
  - summarize, describe, interpret, contrast, predict, associate, distinguish, estimate, differentiate, discuss, extend

# WORD CLUES



- Application

- apply, demonstrate, calculate, complete, illustrate, show, solve, examine, modify, relate, change, classify, experiment, discover

- Analysis

- analyze, separate, order, explain, connect, classify, arrange, divide, compare, select, explain, infer

# WORD CLUES



- **Synthesis**

- combine, integrate, modify, rearrange, substitute, plan, create, design, invent, what if?, compose, formulate, prepare, generalize, rewrite

- **Evaluation**

- assess, decide, rank, grade, test, measure, recommend, convince, select, judge, explain, discriminate, support, conclude, compare, summarize

# Required Materials

- Pencil or Pen (blue or black ink only)
- Calculator
  - No graphing/programmable calculators
  - Should have exponents for scientific notation
- 3 Ring Binder
  - Dedicated only to chemistry
  - 2 inches
  - Clear plastic sleeve
- Computer Access

# Grades

A	90 & above
B	80-89
C	70-79
D	60-69
F	Below 60

# Class Rules

- Be in your seat and ready to work with all required materials when the bell rings
  - 3 tardies = referral to principal
- Be respectful and act like an adult
- No gum, food or drink
- Adhere to the dress code and school rules found in the Student-Parent Handbook



# Possible Disciplinary Actions

- Conference with student
- 1 hour after school detention
- Phone call to parents
- Conference with parents
- Disciplinary referral to the principal

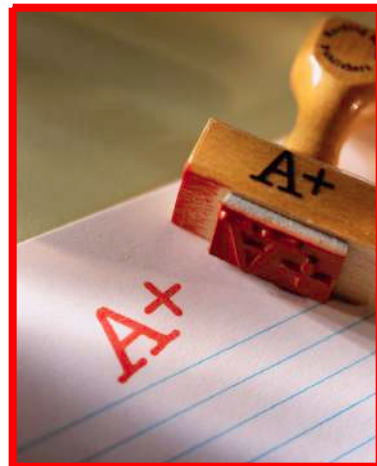
# Homework

- Assigned daily
- Minimum of 30-45 minutes per night
- Complete ASAP after class



# Quizzes/Exams

- All exams are announced
- Quizzes are usually “pop”
- Absences



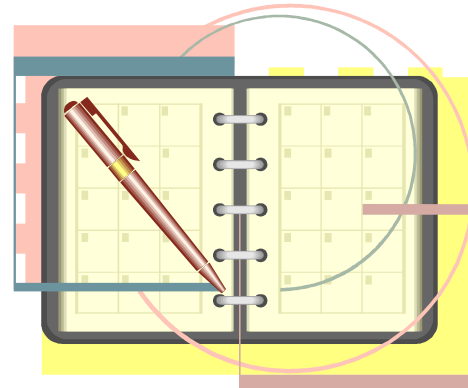
# Attendance/Assignment Policy

- Attendance
- Missed Work
- Late Work



# Weekly Agenda

- Distributed weekly
- Front sleeve of binder
- Access through Edline/Webpage
- Requires daily attention



# Edline

- Grades
- Assignments

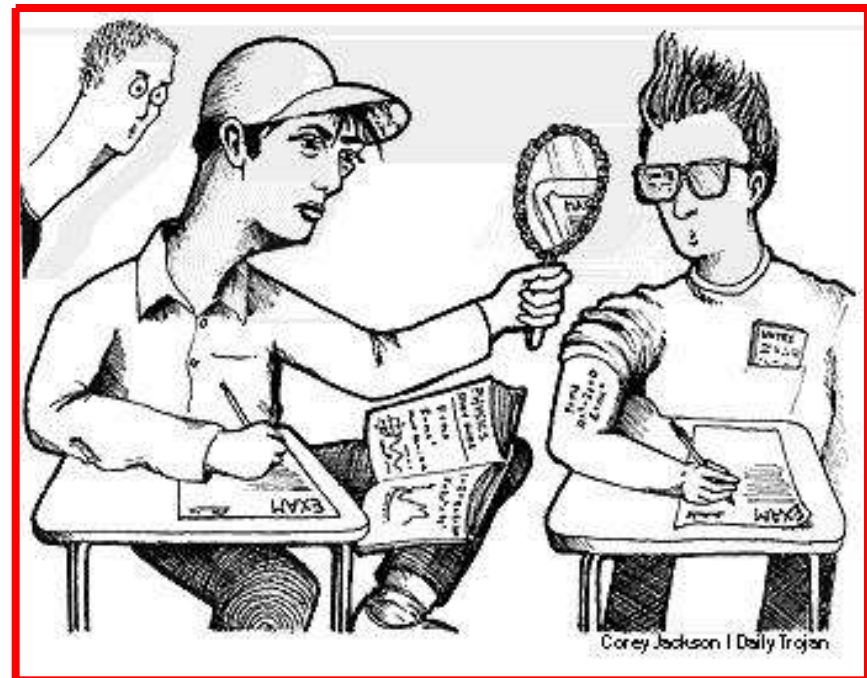


# Webpage

- Weekly agenda
- Notes
- Worksheets
- Powerpoint
- Useful information

# Cheating/Plagiarism

- Don't do it
- Zero and a phone call
- Areas of concern





# Learning Support

- Sign up for tests in resource center before test day
- Report to class for attendance on test day

# Teacher Availability

- Resource center
  - Mrs. Marks mods 11/12
- [Imarks@uscgsd.k12.pa.us](mailto:Imarks@uscgsd.k12.pa.us)
- Plan room 131

# Good Luck!!

- Work hard
- Never stop trying
- Be successful

