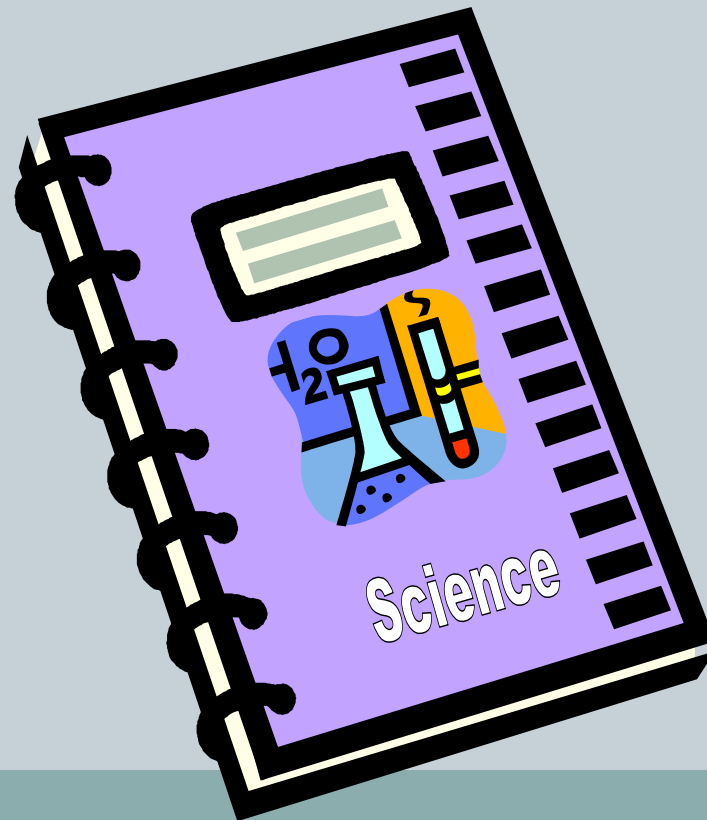


Do Now



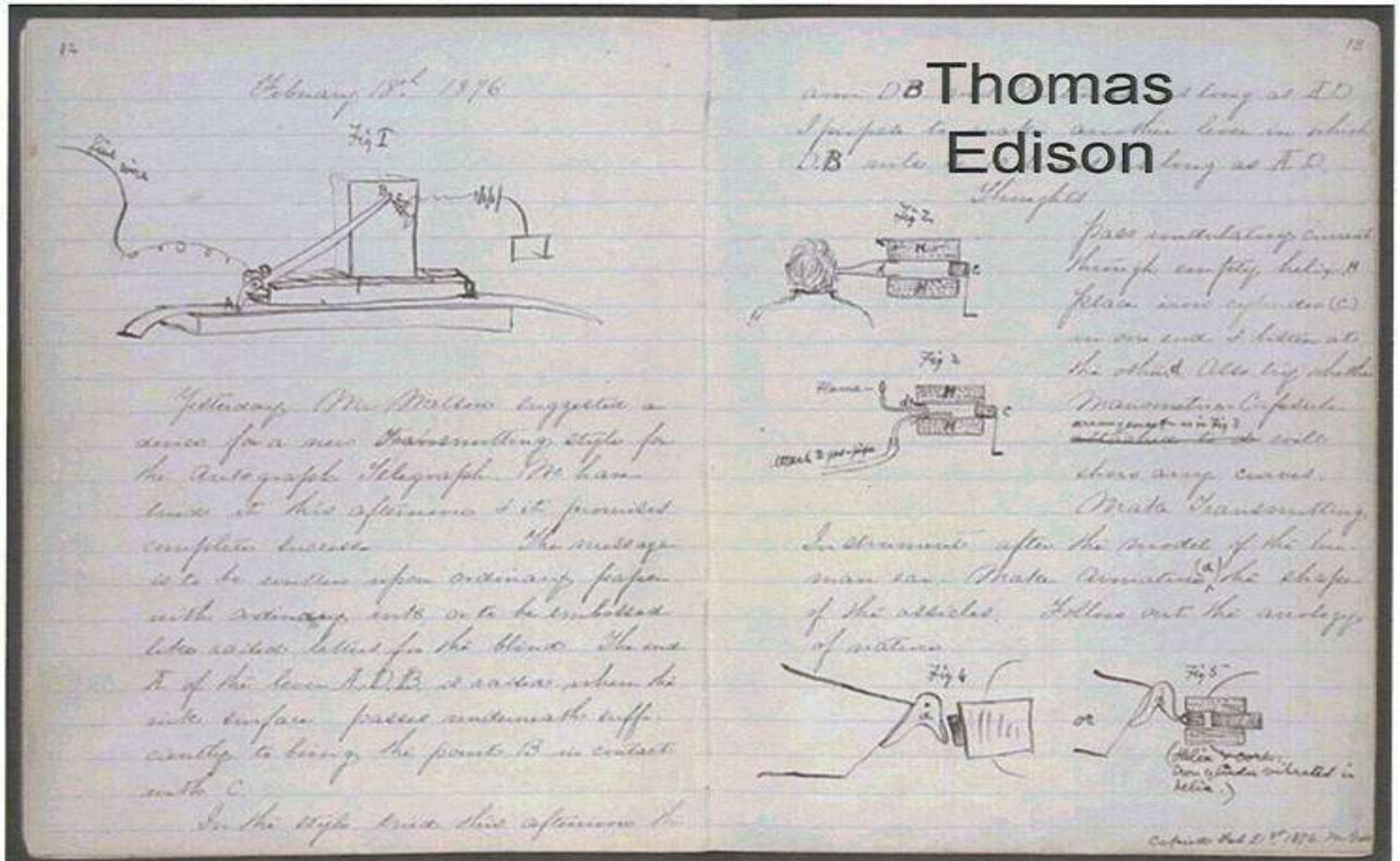
- Please write your HW in your agenda!
- Please take out last night's HW to be collected.
- Please take out all supplies needed for ISN setup:
 - Composition notebook
 - Pens/pencils
 - Glue or tape

Interactive Science Notebooks



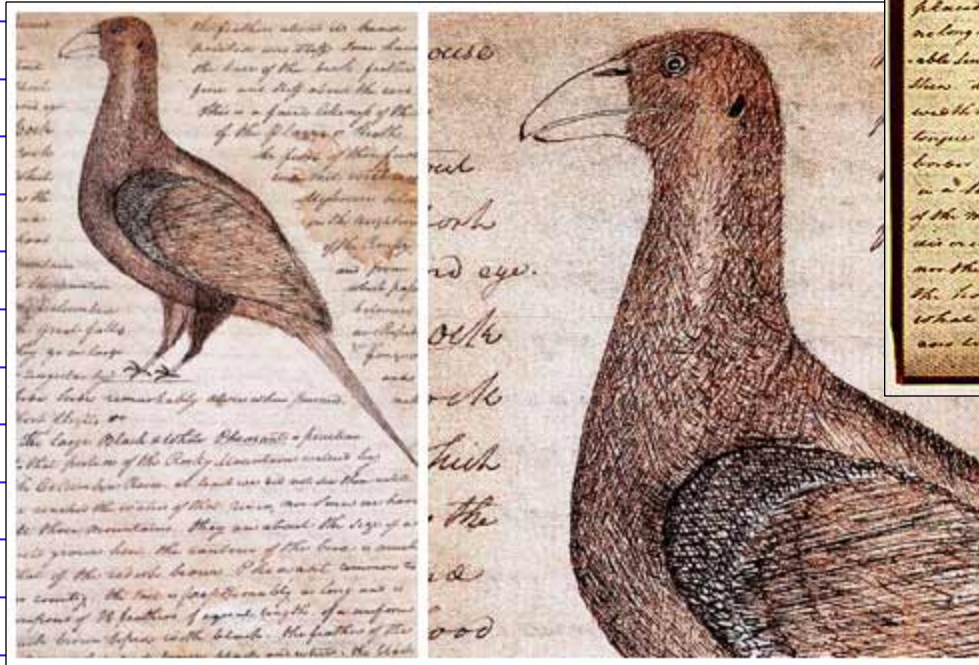
What is an
Interactive Science
Notebook (ISN)?

Scientists use notebooks!



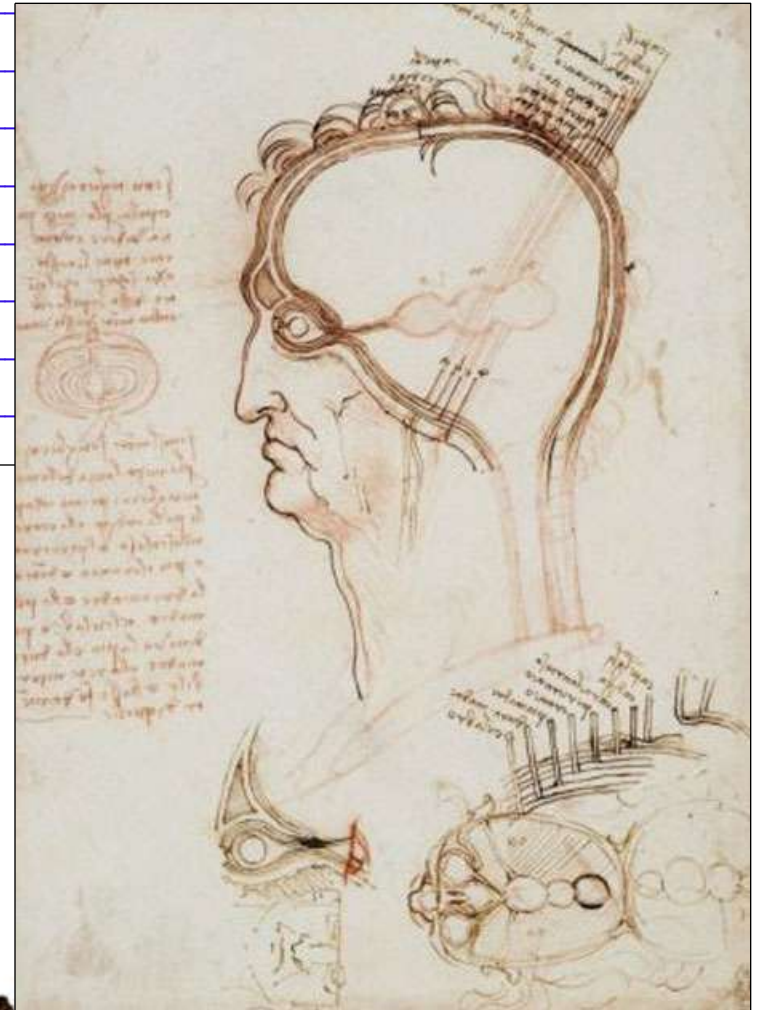
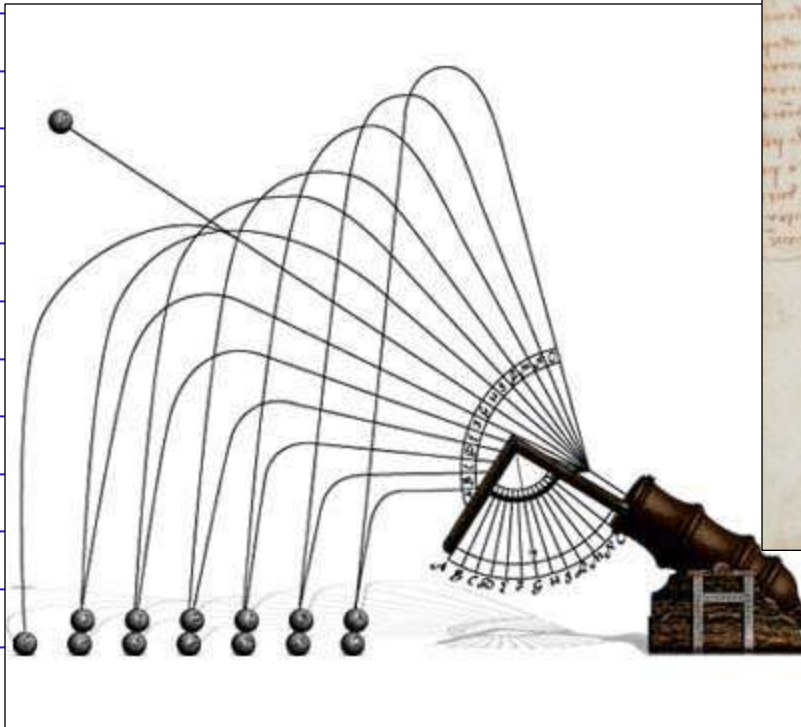
They take notes about the environment!

Lewis and Clark

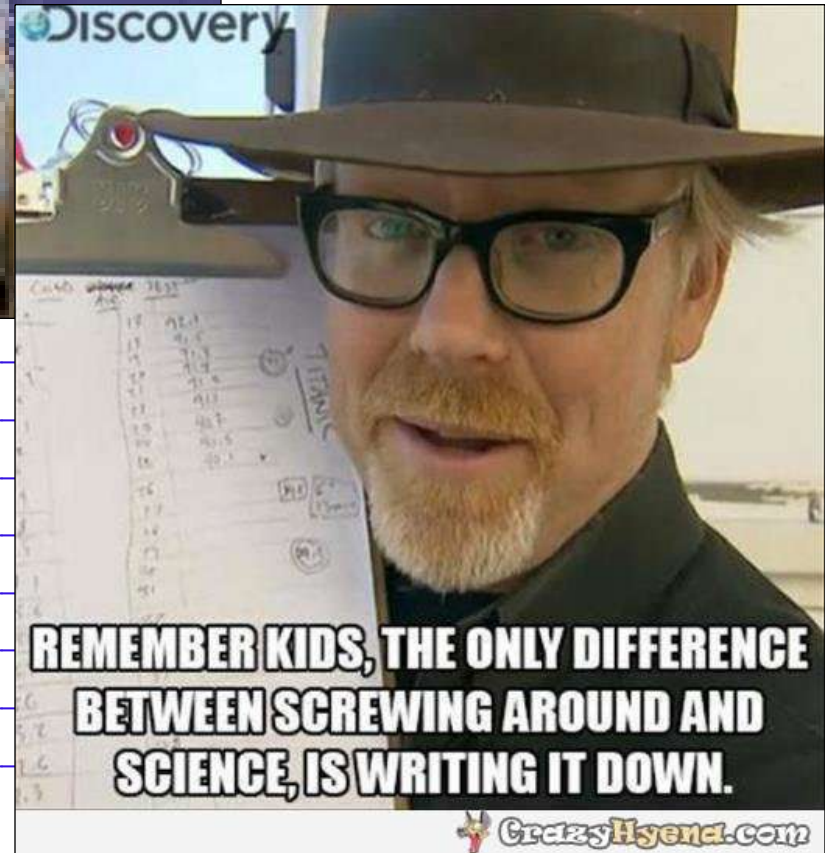
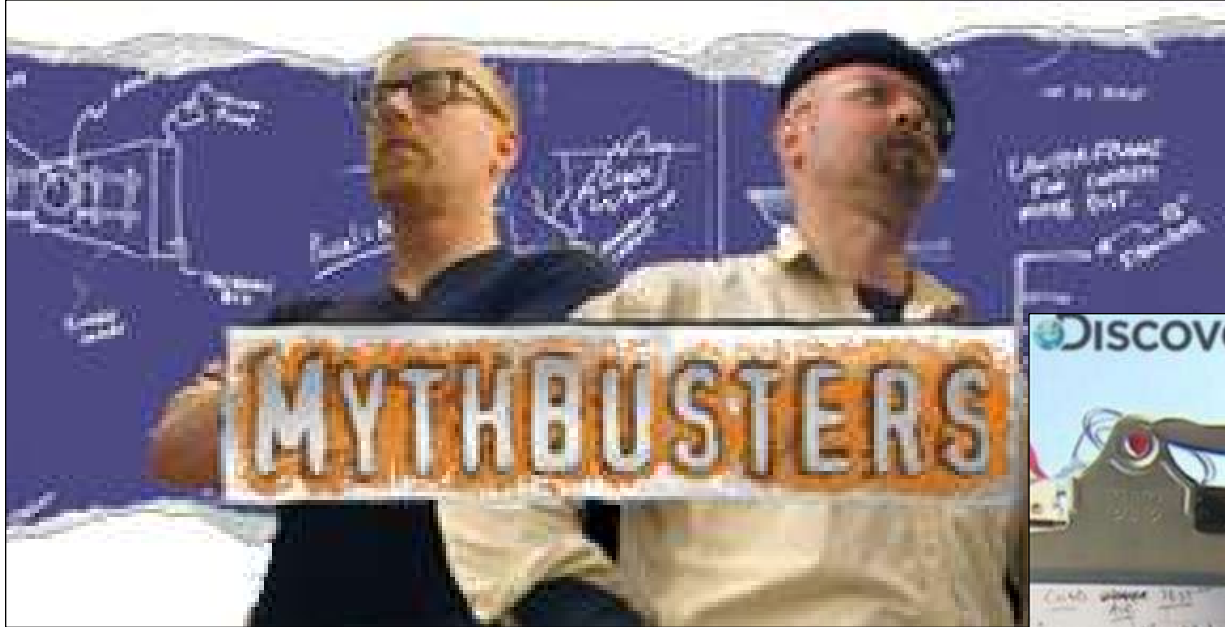


They record their observations!

Leonardo Da Vinci



They record their thoughts!



**REMEMBER KIDS, THE ONLY DIFFERENCE
BETWEEN SCREWING AROUND AND
SCIENCE, IS WRITING IT DOWN.**

YOU ARE A SCIENTIST!

- You will use your notebook daily.
- You will record all your thoughts, observations, and notes.
- You will keep all papers in your notebook.
- You will be graded on the work that you make in this notebook.

HOW WILL THIS HAPPEN?!

- You will write a table of contents and add information to each page.
- When needed, you will use two drops of glue, a piece of tape, or a smudge of glue from a glue stick to place papers in your notebook.
- You will not tear out any pages.



Impact of Hands-on Science & Science Notebooks on Student Achievement

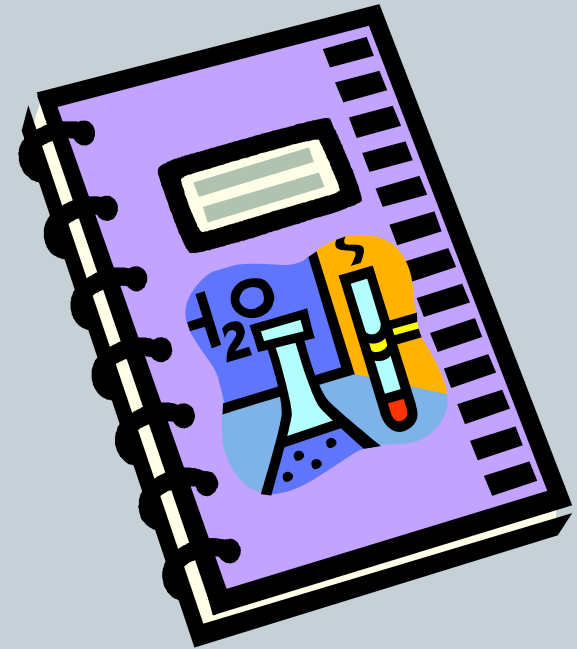


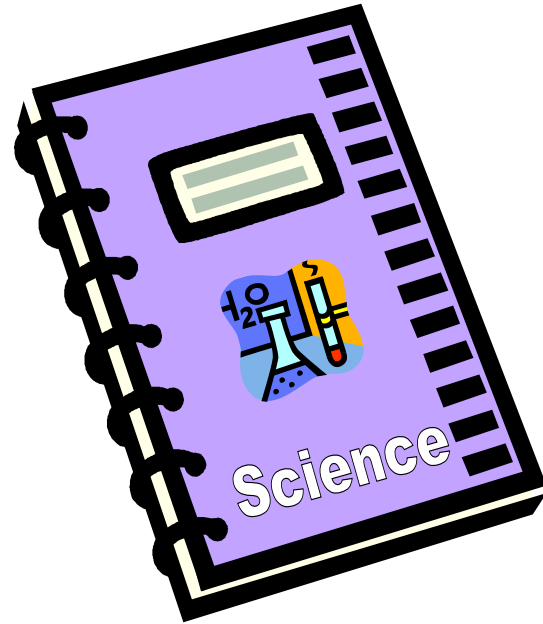
Research shows that student understanding and literacy skills improve when students do hands-on minds-on science and use science notebooks to make sense of their science investigations.

Why use Interactive Science Notebooks?



- Improve organization skills
- Improve critical thinking skills
- Express understanding creatively
- Record data
- Study for tests
- Record progress
- Show it off!





Science Notebook Setup

Right side? Left side? What goes where?

Left Side = Loves student work

Student Output

Lots of Color!

The brain remembers things in color better.

- Do Now
- Concept Maps
- Drawings
- Reflective Writing
- Questions
- Data and Graphs
- Songs
- Poems
- Data from Experiments
- Cartoons or cartoon strips

Right Side = Restricted

Teacher Input/Content

Blue or Black Ink/pencil

- Information given in class
- Lecture Notes
- Lab Activities
- Video Notes
- Summaries
- Textbook Notes
- Procedures for experiments
- Classroom Specific Information

The Electromagnetic Spectrum



There are seven waves in the EM.
They are the 2nd most powerful type of radiation.
The human eye can see visible light.
Ultra Violet rays cause sunburn.
Heat waves are also called Infra Red.
Another name for white light is visible light.
White light can be split into 7 colors.
You can remember the colors by saying Roy G. Biv.

The video answered my questions.

The best part of the video was they explained the Northern lights and what causes them.

The worst part of the video was I liked the whole thing. I didn't find a bad part.

One other thing I will really remember from this video was the funny scientist named Dr. Z. I thought he was funny.

A new title for the video could be "Electromagnetic Energy: What is it?"

Electromagnetic Spectrum Video Notes

Name Tina Pligas date 9-19-07 Class 2 3 4 5 6

1. The order of the EMS from shortest to longest waves is:

- a. gamma rays
- b. X-rays
- c. ultra violet
- d. visible light
- e. infra red
- f. microwaves
- g. radio waves

2. Heat waves are also called Infra Red.

3. This particular wave has a semi-long wavelength and can be used to cook popcorn. microwave.

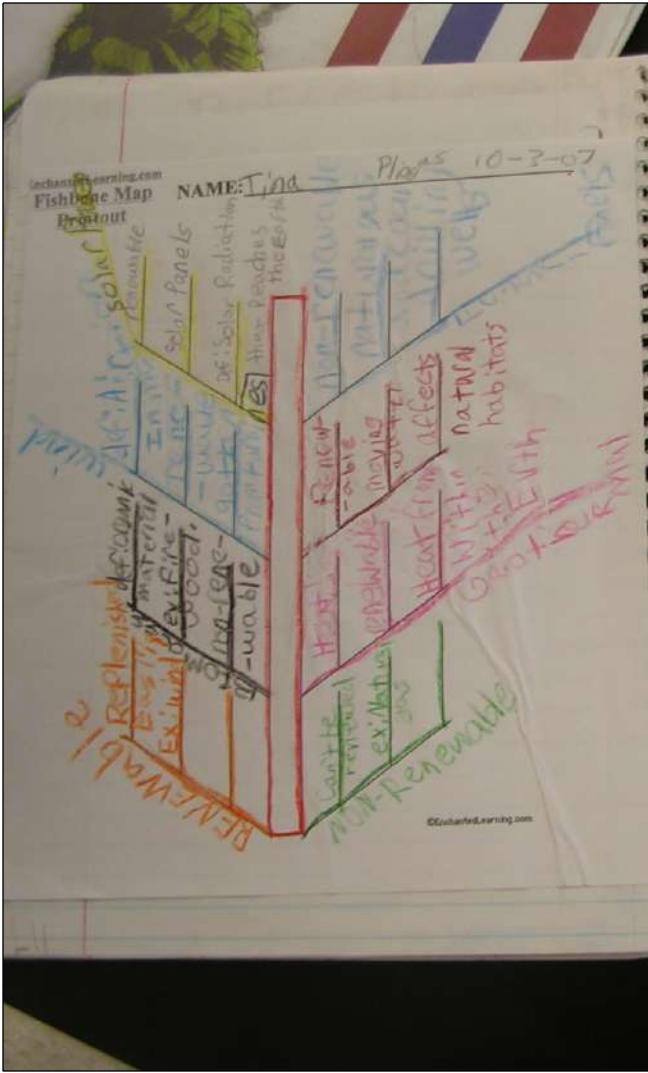
4. The doctor uses X-rays to look at your bones. These are the second most powerful type of radiation.

5. These high energy/short wavelength waves can cause sunburn, even on cloudy days. They are Ultra Violet.

6. This is the part of the electromagnetic spectrum that the human eye can see. It is known as Visible Light.

7. White light, the other name for the above type of radiation can be split in to 7 colors.

- These colors are:
- Red
 - orange
 - yellow
 - green
 - Blue
 - indigo
 - violet



Energy Sources

Renewable vs. Non-renewable

Biomass

Wind Energy

Solar Power

Geothermal

Hydropow

Fossil Fuels: Oil, Natural Gas, Coal

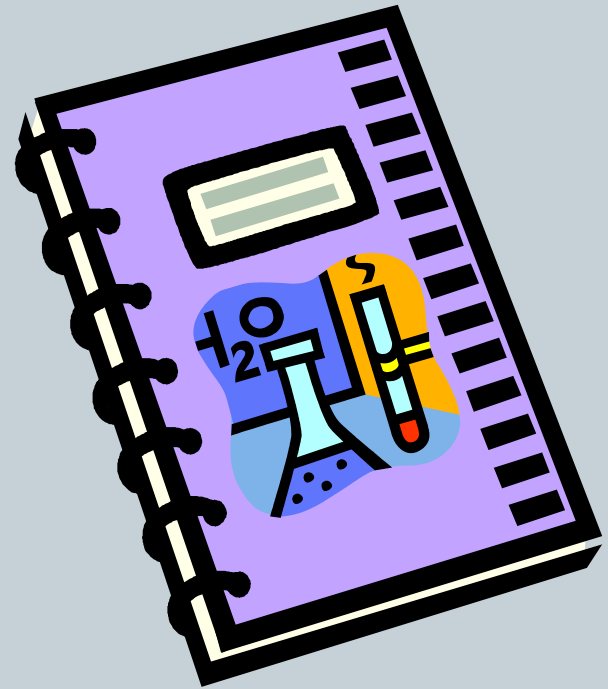
A Bit More On The Left

Getting You to Think About Your Learning

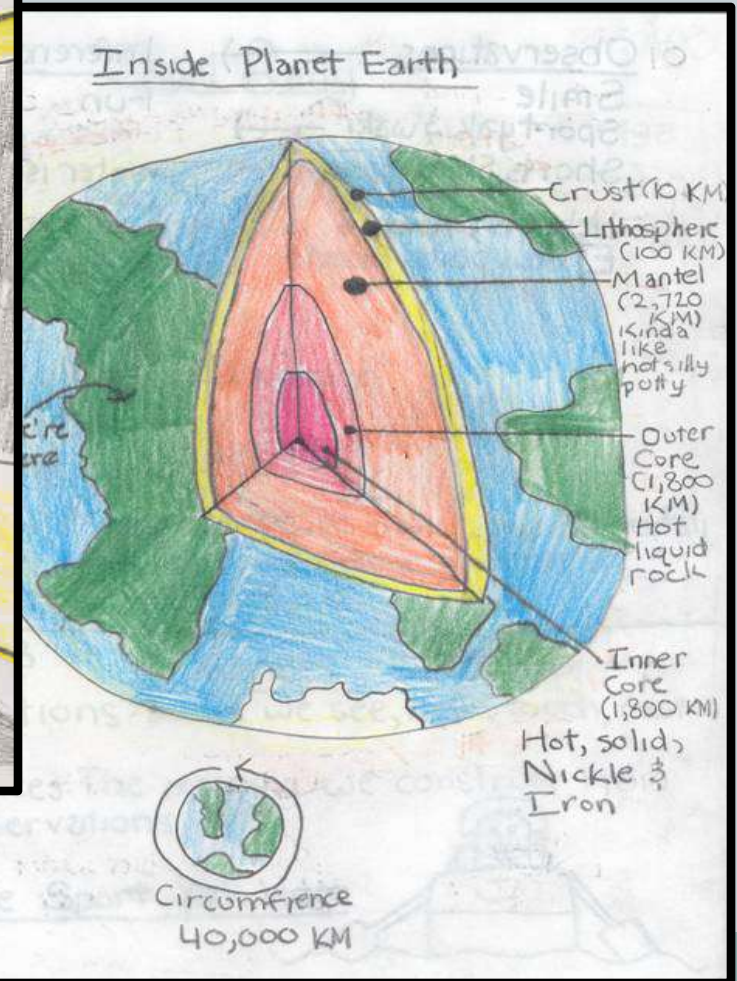
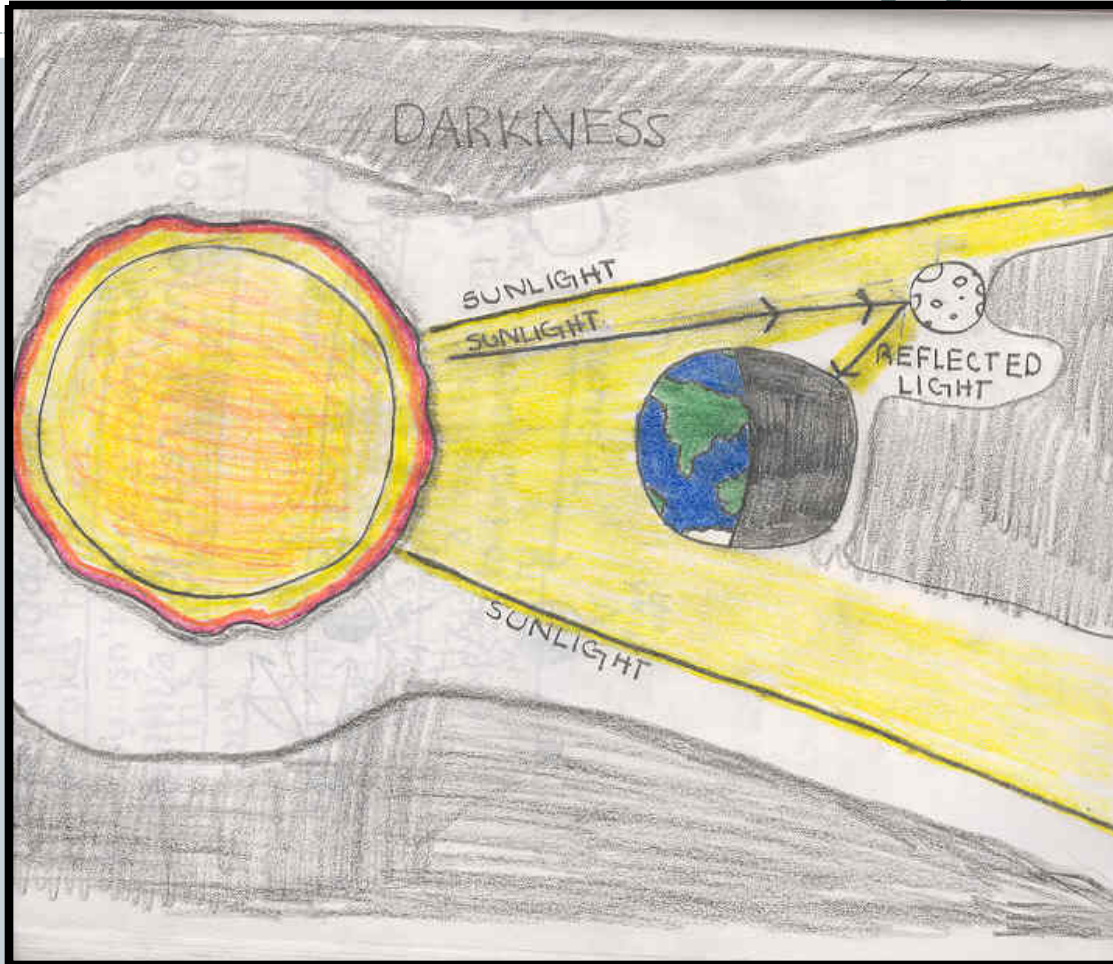
A place to reflect and think!

- What are you curious about?
- What would you like to test?
- What was the main idea?
- What are the important details to remember?
- How does this relate to your life?
- What don't you understand?

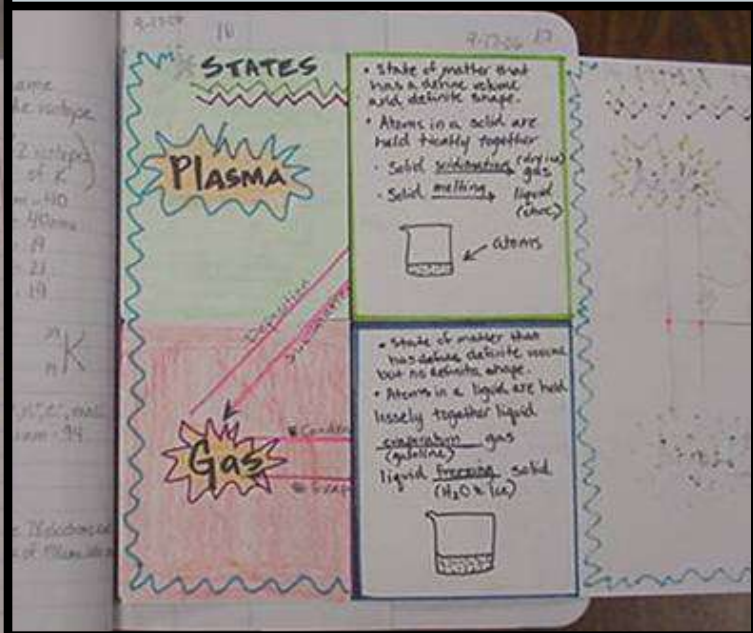
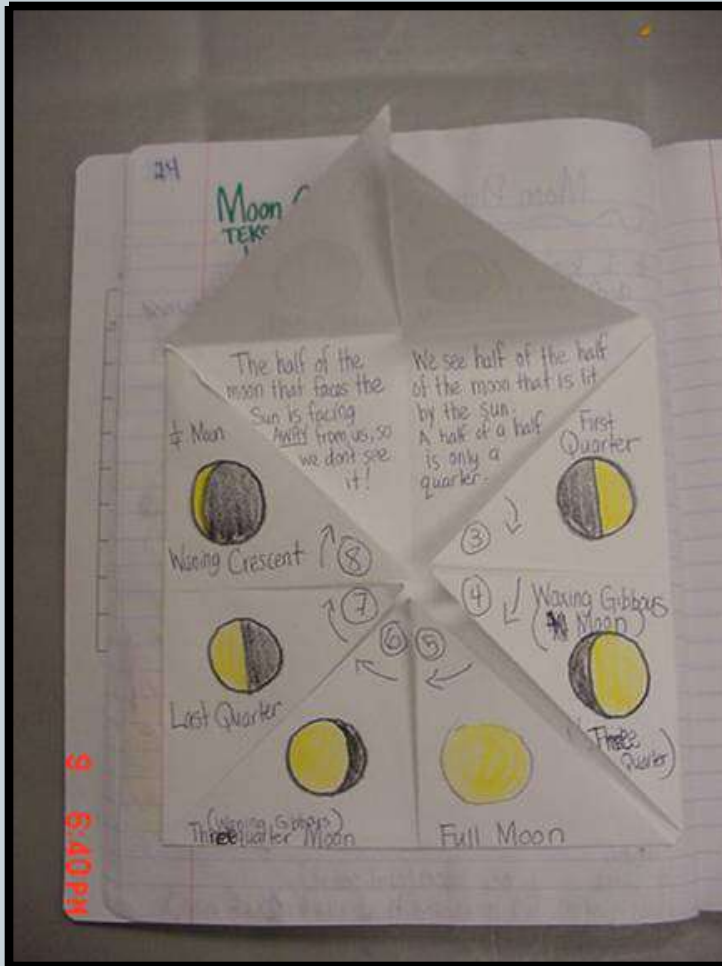
Even more coming up!



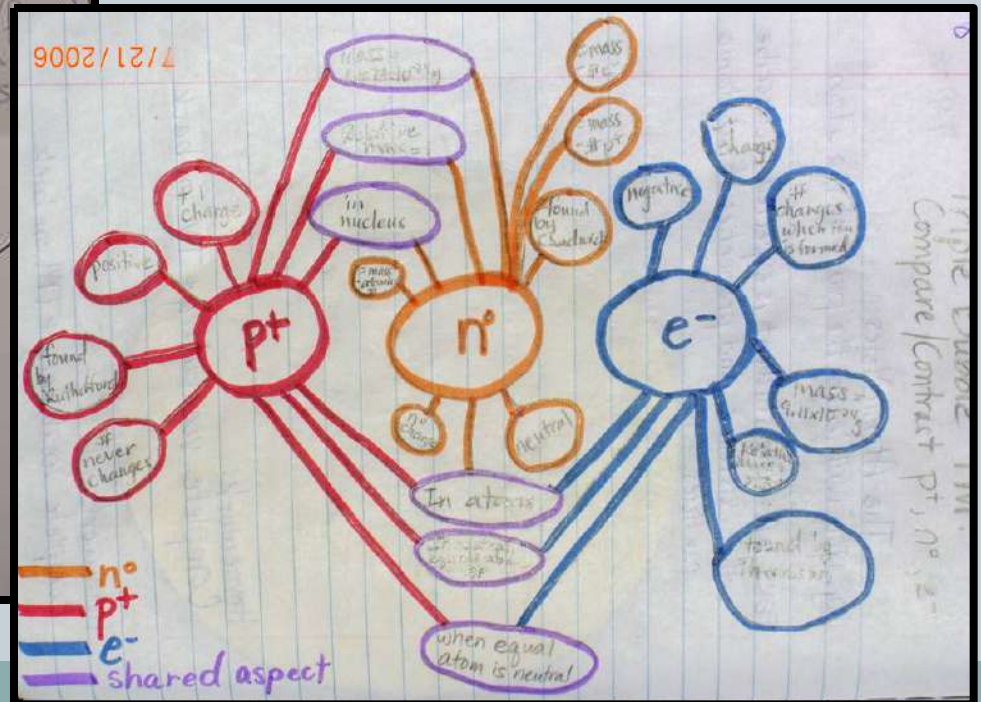
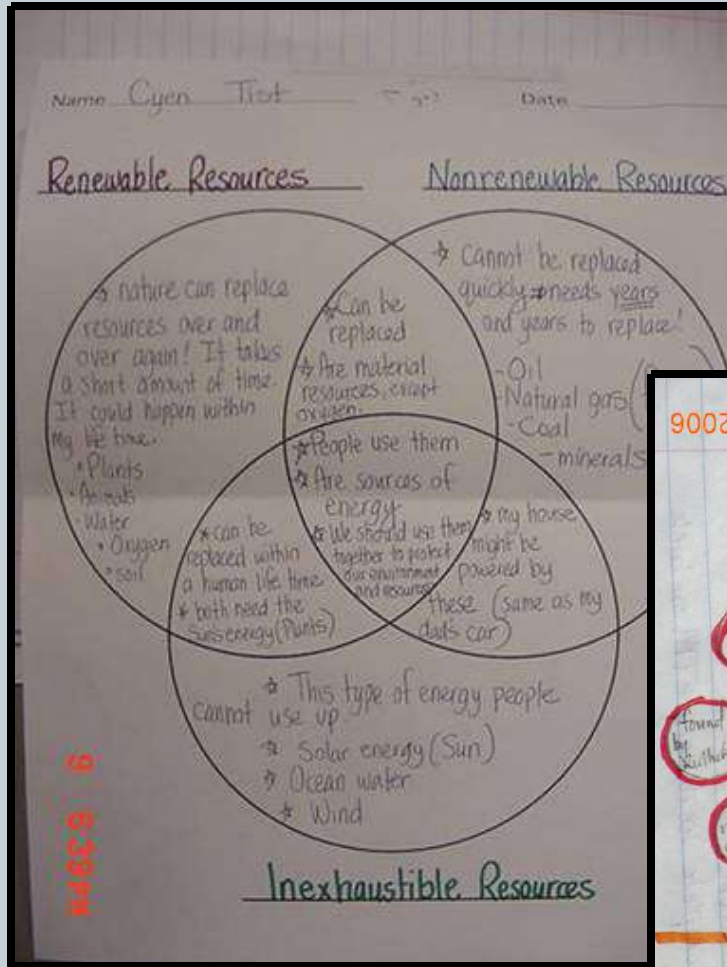
Drawings/Illustrations



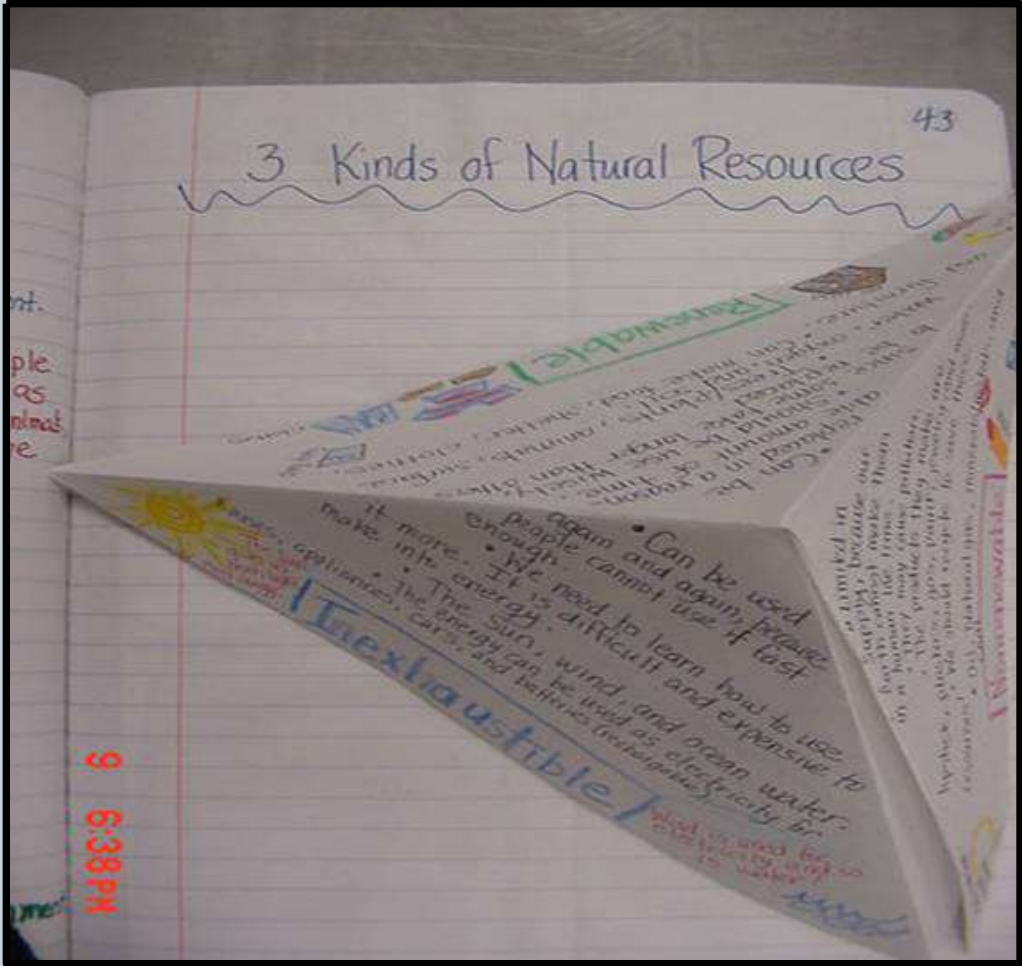
Foldables



Graphic Organizers



Foldables



Lab Data



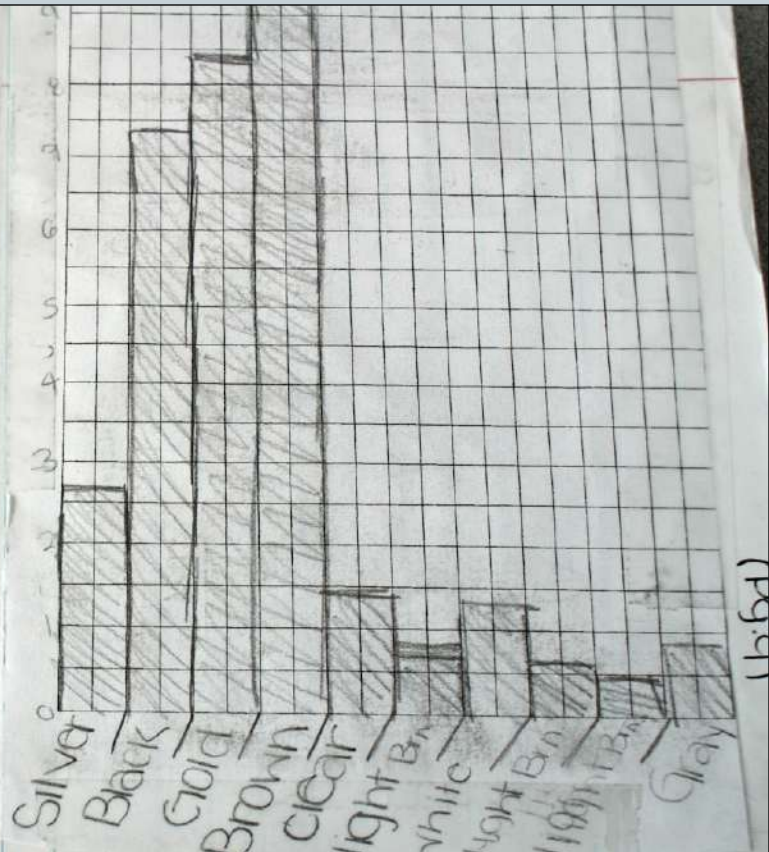
Name: _____ Class: 4th

Density Cubes Lab

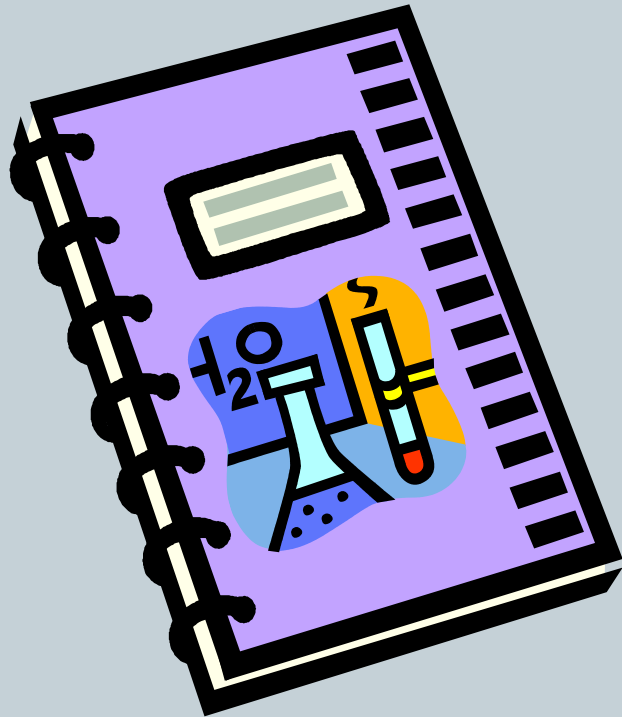
Procedures:

1. Find the mass of each of the cubes and record that data in the table.
2. Find the volume of the cube, using a ruler and calculator. Calculate the density of each of cubes.
3. List any qualitative observations that you can about each of the cubes. (Magnetic, color, etc.)

	Quantitative Data	Qualitative Data		
	Mass (g)	Volume (cm ³)	Density (g/cm ³)	Observations
1	44.9	15.6cm ³	2.84	Silver
2	120.7	15.6cm ³	7.73	Black
3	137.8	15.6cm ³	8.83	Gold
4	144.39	15.6cm ³	9.25	Brown
5	18.79	15.6cm ³	1.19	Clear
6	10.59	15.6cm ³	0.67	light Brn.
7	18.39	15.6cm ³	1.17	White
8	8.19	15.6cm ³	0.52	light Brn.
9	6.9	15.6cm ³	0.38	light Brn.
	12.49	15.6cm ³	0.79	Gray



Restricted Zone: The Right Side



- Notes from:
 - Teacher guided PowerPoint notes
 - Movie/Video
 - Article Readings
- Vocabulary words
- Lab procedures
- Study Guides

Notes



Facts of a gas:


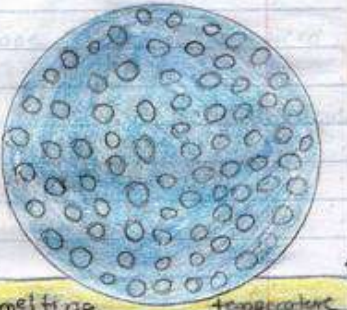
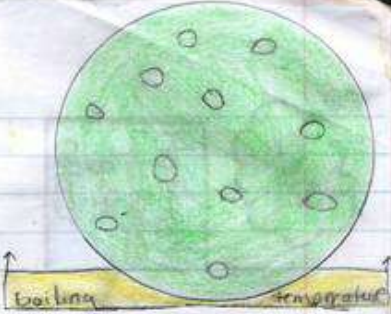
- ★ The particles move fast and away from each other.
- ★ The temperature

Facts of a liquid:

- ★ The particles of a substance are farther apart and slide by each other. (I + sun + cling)
- ★ The molecules move faster.
- ★ The temperature increases.
- ★ Molecules take the shape of their container.
- ★ Liquids are denser than a gas.

Facts of solids:

- ★ Particles are close together.
- ★ Molecules move slow.
- ★ The temperature of the substance decreases.
- ★ The substance contracts.
- ★ A solid keeps its shape + volume.
- ★ The particles are locked together.





23

Moon Phases / Cycles

★ I know the moon looks different, but I don't know why or when it changes. I learned about the words full moon (all the moon shows), half moon (only half shows) and a crescent moon (only a bit shows).

Moon Notes

- ★ The moon rotates around the earth.
- ★ One side of the moon always faces the sun.
- ★ We see different "moons" because our position around the sun changes, which changes the light of the moon as the sun hits it.
- ★ The moon does not make (produce) its own light.
- ★ The phases or positions of the moon we see depends on where the moon, sun, and earth are.
- ★ There is a new moon (can't see it), first quarter, full moon, and third quarter (half moon).



Notebook Checks



- At least once per marking period, your notebook will be collected and checked for a grade!
- What am I looking for?

Visual Appearance and Organization	Quality and Completion	Extras
<ul style="list-style-type: none">• Cover reflects class content• Table of contents• Work is neat and organized• Headings and dates on all pages• Effective use of color	<ul style="list-style-type: none">• Notes and right side work are complete and high quality• Left side work is complete and shows processing of right side work• Evidence of following instructions• Includes graphic representation of thought• No missing work (even if you were absent!)	<ul style="list-style-type: none">• Obvious evidence of time invested• Obvious evidence of learning• Effort and quality of work are exceptional

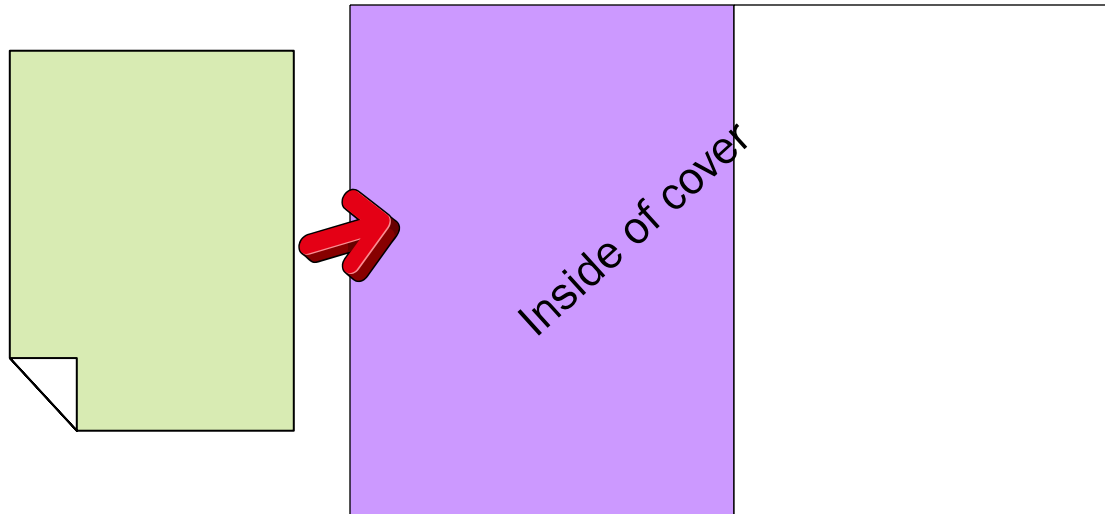
Let's get started!



**Open your notebooks to the
first page!**



Tape the Science Notebook Guidelines to the inside cover of your notebook.



At the top of the first 4 pages, write **Table of Contents**.

Divide each page into 2 columns: Page # and Title

Make sure that the Page # column is smaller than the Title column.

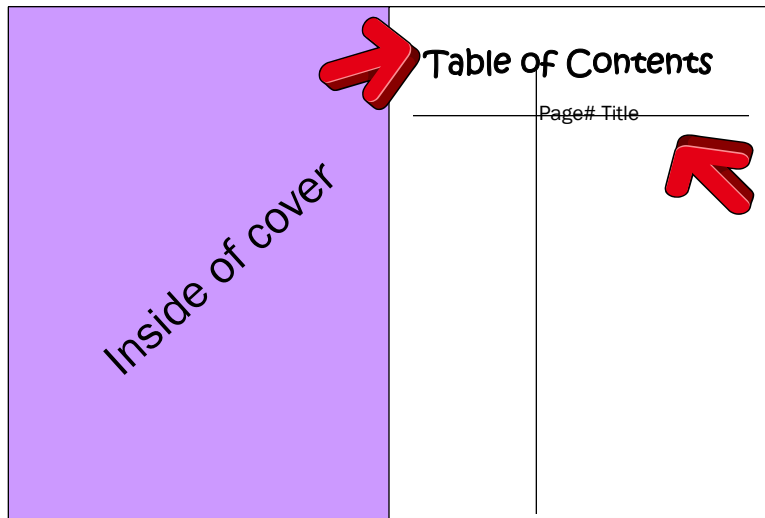


Table of Contents	
Page#	Title

Table of Contents	
Page#	Title


Table of Contents	
Page#	Title

Table of Contents	
Page#	Title

Numbering Pages

- Starting with the first page, number the first 50 pages. Numbers should be small and at the top outside corner of every page.

Table of Contents Page# Title	1	2	3
---	---	---	---



Extras

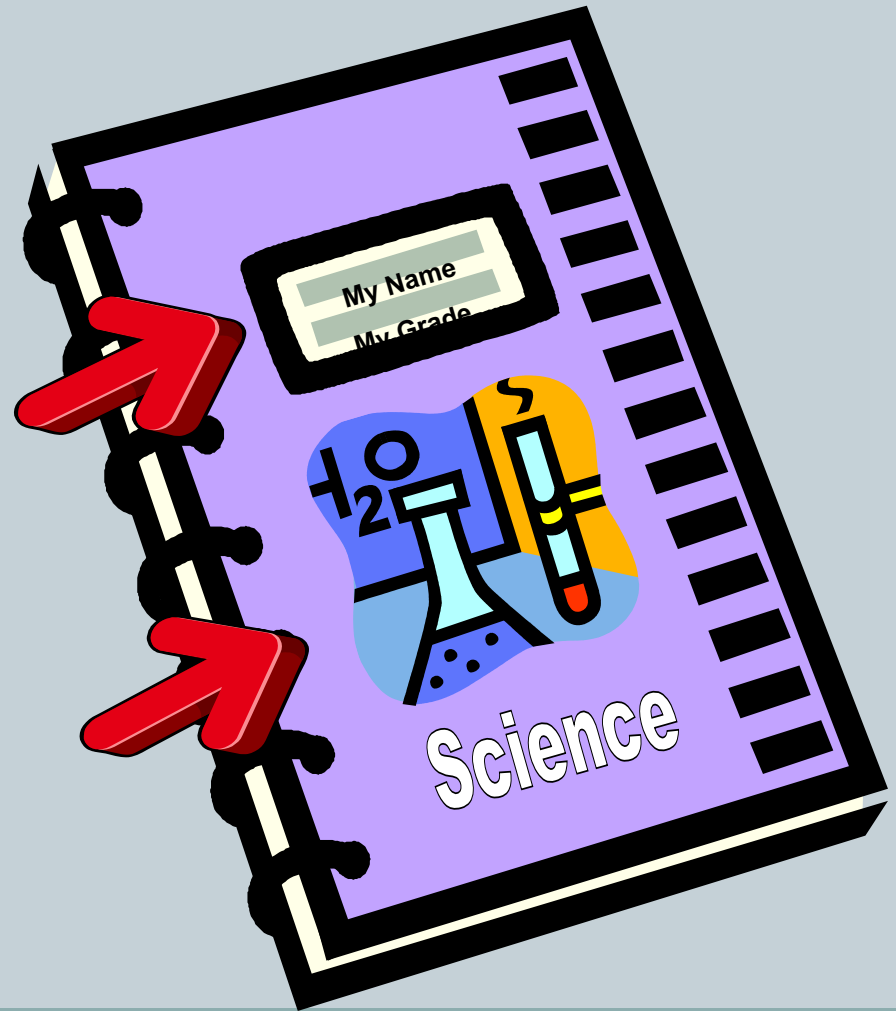


- On our first page, place the folded syllabus in like a booklet.
- Create a pocket at the back of your notebook.

Getting started on your first homework assignment!

Step 1: On the front cover write the following...

- Your name
- Your science teacher's names
- Your class period #



To complete for homework...

Step 2: Cut out pictures or make drawings to add to your notebook cover.

- 3 pictures that remind you of 8th Grade Science topics: chemistry, physics, astronomy, weather
- 3 pictures that are personal to you (favorite hobby, family photos, etc.)



We are READY!

