The Interactive Science Notebook
Mr. Lutz

What is it for?
The interactive notebook is set up to aid you in your research and understanding of scientific laws and theories. It will focus on multiple learning styles to best aid all students in their attempts to master science.

How often will it be graded and how?
The interactive notebook will be graded during each test. Because there will be a lot of work covered for each unit test, a random day will be chosen by the teacher to be graded. The reason for a random choice is to ensure that each day receives the same amount of attention from you.

What goes into the notebook?
The notebook will include the following:
- Title page
- Table of Contents
- Daily outline handouts
- Daily Title with date and pages numbered
- Opening Activity
- Notes
- Summary of notes
- Closing activity

Interactive Notebook Setup

The First Page
The first page on the inside of your notebook is for your title page. Use multiple colors on this page and make it your own. The page should include the following:
- Title “Interactive Science Notebook”
- Period
- Teacher’s name
- Your name
- A picture that represents science to you

The Second Page
The second page is where your table of contents begins. The table of contents will cover 6 sides of paper. The outline for your table of contents will look like the following.

<table>
<thead>
<tr>
<th>Page</th>
<th>Date</th>
<th>Standard</th>
<th>Title</th>
</tr>
</thead>
</table>

The seventh Page
The seventh page is for your outline of what is expected for daily activities. Cut out the correct pages and tape or staple them into your notebook

The eighth Page
The eighth page is for attaching the cornel note outline. This is to give you an example for future use.
Daily Activity Outline

Start Left side

You will start each day on the left side of the pages. The page will be set up with the title at the top, the date at the top right and the page number at the bottom. Your first line after the title will have the opening activity. After your opening activity you will also have a closing activity. The closing activity is for creating a visual record of what you studied during the lessons. The closing activity will be finished at the end of class during the last 5 minutes.

Closing Activities

At the end of each day you will include a closing activity to wrap up your learning. You can choose one closing activity from the following list:

- Create 5 quiz questions
- Discovery Headline/News Articles
- Venn Diagram
- Concept Map
- Flow-charts
- Haiku
- Cinquain
- Song Lyrics
- Acrostic Organizer
- Cartoon
- Riddle card
- Visual Illustration
- Short science fiction story
- Explain the lesson in a real life situation

Closing Activity Outline

5 quiz questions

Review your Cornell Notes and provide 5 questions ranging from three different levels. Make sure that only two questions are used from each level.

Level 1: Basic Input
- Complete, Count, Match, Name Define, Observe, Describe, List, Identify, Select, Recite, Scan

Level 2: Processing Information
- Compare, Contrast, Sort, Distinguish, Explain Why, Infer, Sequence, Analyze, Synthesize, Make Analogies

Level 3: Creating Your Own Ideas
- Evaluate, Generalize, Imagine, Judge/Predict, If/When, Speculate, Hypothesize, Forecast, Idealize, Apply the Principle

Discovery Headline/News Articles

Locate an article from a reliable newspaper, magazine, or Internet site that pertains to the subject at hand. Cut and paste the article into the right side of your notebook and write a 2-paragraph summary of the article and how it relates to the topic of discussion in the class.

Venn Diagram

Create a Venn diagram that compares and contrasts two concepts discussed in today’s lessons. Each circle will have the unique characteristics of that concept. The space that is overlapped by each concept will have the similar qualities that each concept shares.
**Concept Map**

When making a concept map, the main theme or concept is in the center bubble. Branching off this center bubble should be related concepts or topics.

- Use different colors in your map for each thread related to a single idea or concept
- Include at least 4 different ideas or concepts

**Flow-Charts**

Create a flow chart showing the sequence of events that occurs in a system. The flow chart will start with a single event that may result in two or more outcomes, use diverging arrows. If an event results in connecting to an earlier step include an arrow that shows this. Use different colors for the flow-chart.

**Haiku**

Haiku is simple poem from Japan that emphasizes nature, color, and contrasts between items. It includes 3 lines and 17 syllables broken up in a 5,7, and 5-syllable pattern. A haiku should communicate a fact or concept from the lesson.

- 5 syllables in the first line
- 7 syllables in the second line
- 5 syllables in the third line

After the haiku you will write 3-5 sentences telling how the haiku demonstrates an understanding of the daily concept.

**Cinquain**

A cinquain is a 5-line poem written about a single concept, object, or idea. The format is a short, unrhymed poem of twenty-two syllables and five lines. The five lines contain 2,4,6,8, and 2 syllables. Each line is supposed to deal with a specific aspect of the cinquain’s topic.

<table>
<thead>
<tr>
<th>2 syllables</th>
<th>(the title)</th>
<th>Raindrop</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 syllables</td>
<td>(describes the title)</td>
<td>Moisture, Falling</td>
</tr>
<tr>
<td>6 syllables</td>
<td>(states an action)</td>
<td>Sustain, Nourish, Cleansing</td>
</tr>
<tr>
<td>8 syllables</td>
<td>(expresses a feeling)</td>
<td>Teardrop diamond dropping Earthward</td>
</tr>
<tr>
<td>2 syllables</td>
<td>(word for title)</td>
<td>Dewdrop</td>
</tr>
</tbody>
</table>

**Song Lyrics**

Write the lyrics of a song to a familiar tune. The song should summarize at least three key points about the topic.

Example:

**Triglycerides**

Sung to Long Carbon Chains with hydrogen

“America Surrounded where they’re at the
Beautiful Are joined in threes to glycerol
Triglycerides, triglycerides
To make a neutral fat
Store so much energy
You insult so I feel great
And give me ATP

**Acrostic Organizers**

Acrostics are powerful memory devices that can take you to Costa’s second and third levels. To write and acrostic, select a key word that is central to the concept you
are studying. Write the letters of the word vertically. Then make a list of companion words that describe the concept. Find a way to partner them with the original letters you wrote vertically.

**Topic:** Sponges  
**Key word:** Porifera

- **P**orous sacs
- **O**sculus acts as exit for water current
- **R**eproduce asexually by budding or sexually with gametes
- **I**nternal spongocoel
- **F**our kinds of cells: Epidermal, Pore cell, Collar cell, Amoeboid Cells
- **E**xternal anatomy strengthened by spicules
- **N**regeneration of damaged tissues by amoeboid cells
- **A**nimal kingdom’s simplest members

**Cartoon**

Create a short cartoon of four panels that shows the concept covered during the lesson. The cartoon does not have to be funny. Beneath the cartoon write a short paragraph explaining how the cartoon addresses the concept from the day.

**Riddle Card**

The riddle is to assist you in learning and understanding terms and concepts covered in class and are necessary for understanding.

- **Front side**
  - The card needs to have a riddle and an illustration
  - The illustration should reflect the topic of the riddle with a clue that might help solve the riddle.
  - The riddle should contain one or more clues, the clues might not rhyme but must refer to aspects of the answer

- **Back Side**
  - The back of the card has the answer to the riddle.
  - The answer must be clearly written
  - Below the answer, write an explanation of the clues and how they lead to the answer. The explanation should be 2 to 3 sentences in length.

**Visual Illustration**

Create a visual illustration explaining the topic. You will also include a short paragraph explaining the picture and how it connects to the topics.

**Short Science Fiction Story**

Write a two-paragraph science fiction story that explains the main concept of the lesson for the day. Make sure that your story includes an explanation of the major ideas.

**Explain the lesson in a real life situation**

Provide an example of how the lesson for the day influences or affects your daily life. Try to make a connection to your hobbies or daily activities. The example should be at least two paragraphs long.
Daily activity outline
Start Right Side

Cornell Notes
Cornell Notes will be used for keeping track of the notes from lectures, guest speakers, texts, video and film notes, and readings.

- You will need to write legibly so that anyone can understand what you have written.
- Use highlighting and color to make the notes standout.
- When you are finished with your notes you need to write your study questions ASAP!
- Write summaries at the bottom of each page of notes to increase comprehension and reduce the amount of information you will have to study.

Sample Cornell Notes

<table>
<thead>
<tr>
<th>Question (from student)</th>
<th>Notes (factual information)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why are plants green instead of red?</td>
<td>Scientists note that plants are green. Many hypotheses have been proposed to understand plant color.</td>
</tr>
<tr>
<td>How does photosynthesis work to make food</td>
<td>Photosynthesis mean to put together with light, meaning that plants use a process to produce food and energy from light.</td>
</tr>
<tr>
<td>What's the difference between transmit and absorb?</td>
<td>Plants are green because they transmit green light</td>
</tr>
</tbody>
</table>

Summary: Photosynthesis is a process that plants use to make their own food. "Photo" means light and "synthesis" means put together. Plants use light to make their own food.