

Interactive Notebooks: Left Sides

The left spiral page (even number) demonstrates your *understanding* of the information from the right-side page (odd number). You work with the input, and INTERACT with the information in creative, unique, and individual ways. The left side incorporates and reflects how you learn science as well as what you learn in science. We'll use the 4 "block" categories to help accelerate your learning and focus your attention on big science concepts.

What goes on the left side?

OUTPUT GOES ON THE LEFT SIDE! EVERY LEFT SIDE PAGE GETS USED!

ALWAYS USE COLOR - it helps the brain learn and remember.

What else goes on the LEFT side?

- Brainstorming
- Pictures
- Venn Diagrams
- Other diagrams
- Reflections
- Flow charts
- Drawings
- Concept maps
- Writing prompts
- Discovery Headlines
- Riddles
- Cartoons
- Metaphors and analogies
- Data and graphs you generate
- Quick Writes
- Graphic organizers
- Foursquare analogies
- Biography posters
- Drawings
- Other creative avenues

Block 1

- Levels of Questioning
- Discovery Headlines/News Articles

Block 2

- Venn Diagrams
- Folding Facts
- Concept Maps
- Flow Charts

Block 3

- Haiku
- Cinquain
- Song Lyrics
- Acrostic Organizers

Block 4

- Cartoon
- Riddle Cards
- Visual Illustration

Interactive Notebooks: Right Side

Interactive notebooks will be used in this class daily to help you learn and remember important scientific concepts. *Why do they work?* This notebook style uses both the right and left brain hemispheres to help you sort, categorize and remember, and creatively interact with the new knowledge you're gaining. The more you process information, the more you begin to understand it. This leads to longer retention.

What goes on the right side page?

INPUT GOES ON THE RIGHT SIDE (ODD NUMBER)!

Input is all the information that you are supposed to learn. Some examples of input are notes on: lectures, text or other sources, vocabulary words, video and film notes, teacher questions, readings, questions and answers, or sample problems.

- Always start the page by recording the date and subject title at the top.
- The right spiral page is for **writing down** information you are **given in class**.
- When the teacher lectures, you take notes on the right side.
- When you take **book notes** or video notes, they go on the right side. **ALWAYS**.
- You may use **Cornell-style** notes on the right pages. Write up your study questions as soon as possible.
- Write legibly. Use highlighting color to make important information stand out.
- Write summaries at the bottom of each page of notes to reduce the amount you have to study.
- Notes for labs and **lab instructions**, procedures, and materials.
- Teacher questions and sample problems.
- Any other type of **INPUT** you get in class.

Sample Cornell-Style Notes

Student Questions	Factual Information
1. Why are plants green instead of blue or red?	Scientists note that plants are green. Many hypotheses have been proposed to understand plant color.
2. How does photosynthesis work to make food?	Photosynthesis means 'to put together with light' meaning that plants use a process to produce food and energy from light.
3. What's the difference between transmit & absorb?	Plants are green because they transmit green light and absorb other colors.

BLOCK ONE

Levels of Questioning

Review your Cornell Notes for the section your Interactive Notebook assigned. For each question that you wrote (a minimum of five per page of notes), identify the LEVEL of the question, according to Costa’s system of classification. Where fewer than two questions are at Level 2 or Level 3, compose higher-level questions as needed.

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 via a reputable newspaper, magazine, or Internet pertaining to the subject at hand. Cut and paste the article onto 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 class.

BLOCK TWO

Venn Diagram

Create a Venn diagram that compares and contrasts two vocabulary words or concepts discussed in today’s lesson. Use three colors. One color is for the first circle and the unique characteristics of the term or concept it represents. The second color is for the second circle and the unique characteristics of the term or concept it represents. The third color is for the overlapping area and the common characteristics shared by the terms or concepts.

Concept Mapping

When making a Concept Map, the main theme or concept occupies the center bubble. Branching off this center bubble should be related concepts or topics.

- Use at least 4 different colors and 4 different shapes on the concept map.
- Each color must represent a different thread of ideas or concepts. If a bubble is related to more than one thread of concepts, use multiple colors to show this.
- The shape of each bubble must represent a different thread of ideas or concepts.
 Include a key *identifying* what each shape and color represents

Flow – Charts

Create a flow chart showing the sequence of events that occurs in a system. Where a single event may result in two or more outcomes, use diverging arrows. If an event modifies an earlier step (as in negative feedback), use arrows to indicate this as well. Use four colors to distinguish between related processes or activities.

Folding Fact-sheets

Create a Folding Fact-sheet for the terms or concepts assigned.

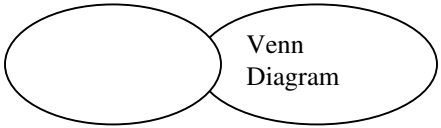
Matchbook:

PICTURE
Term/Concept

Pronunciation Part of Speech Definition Formula (If any)
Use the term in a sentence that provides context.

Garage Door:

PICTURE	PICTURE
Term/Concept	Term/Concept
PICTURE	PICTURE
Term/Concept	Term/Concept

Pronunciation Part of Speech Definition Formula (if any)	Pronunciation Part of Speech Definition Formula (if any)
 Venn Diagram	

BLOCK THREE

Haiku

Haiku is a minimalist, contemplative poetry from Japan that emphasizes nature, color, and contrasts. There are 3 lines and 17 syllables distributed in a 5, 7, and 5 syllable pattern. A haiku should communicate a sensation or the “distilled essence” of a specific fact or concept.

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

Your haiku must follow the metric pattern and deal with any aspect of a topic covered in class. Create a border and artwork reflecting the topic or your insight. Then write a 3 – 5 sentence explanation telling how the haiku demonstrates an understanding of the assigned term or concept.

Cinquain

A cinquain is a five-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 then 2 syllables. Each line is supposed to deal with a specific aspect of the cinquain’s topic.

The first line consists of two syllables:	(the title).	Raindrop
The second line consists of four syllables:	(describes the title).	Moisture, Falling
The third line consists of six syllables:	(states an action).	Sustain, Nourish, Cleansing
The fourth line consists of eight syllables:	(expresses a feeling).	Teardrop Diamond Dropping Earthward
The fifth line consists of two syllables:	(another word for the title).	Dewdrop

Song Lyrics

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

Here’s an example:

Triglycerides

Long Carbon Chains with hydrogen
Surrounding where they’re at
Are joined in threes to glycerol
To make a Neutral Fat
Triglycerides, triglycerides
Store so much energy
You insult so I feel great
And give me ATP!

Sung to “America the Beautiful”
--

Acrostic Organizers

Acrostics are powerful memory devices that can take you to Costa's second and third levels. To write an acrostic, select a key word that is central to the concept you are studying. Write the letters of that 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. Here's an example:

Topic: Sponges Key Word: Porifera

Porous sacs

Osculum acts as exit for water current

Reproduce asexually by budding or sexually with gametes

Internal spongocoel

Four kinds of cells: Epidermal, Pore cell, Collar cell, Amoeboid cells

External anatomy strengthened by spicules

Regeneration of damaged tissues by amoeboid cells

Animal kingdom's simplest members

Illustrate your acrostic with a picture that summarizes what you've written about.

BLOCK FOUR

Cartoon Project

The cartoon does *NOT* have to be funny

Create a single frame cartoon (like a Farside)

Use four colors minimum (Black and White DO NOT COUNT)

Maximum 2 lines for a caption.

Beneath your cartoon, identify the science concept being shown. Then, provide a paragraph explaining how the cartoon depicts or addresses the concept you identified.

Riddle Cards

The purpose of a RIDDLE CARD is to assist you in learning and understanding terms and concepts covered in class and necessary for understanding. Because you must comprehend the essential nature of the concept to make a riddle, you are working at Costa's third level.

Front Side

On the front of the card, a riddle and an illustration (4 color minimum) appear.

- 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 or 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 across the top of the card.

Below the answer, write an explanation of the clues and how they lead to the answer.

This explanation is usually 2 to 3 sentences in length.

Visual Illustration

Make a visual illustration explaining the topic.