

Skill Builder

How to Read & Take Notes

Connection Point

In your notebook, answer the following question: How do you build a house? Do not just use your fast thinking. Intentionally tap into your slow thinking, laying out the process of how someone would go from a land with trees to a nice, suburban style house.



How Do You Build a House?

Janice really wanted a house. Apartment living had worn her nerves thin. She had worked and saved for years until she finally had enough money to pay cash for her house. Oh, but this isn't just any house. It is a brand new house. She got to work with the architect and designers to tweak the floor plan to be exactly how she dreamed it would. The money was paid. The deal was closed. It was time to build the house.

The workers showed up the first day ready to work. They brought out cans of paint and started painting everywhere they could paint. While the first of workers were painting, a second group came in with a little bit of carpet and some decorations, hanging pieces of art from the newly painted tree branches. Meanwhile a third group came in with some wood, positioning the wood for what would become the roof. At the end of the first day, Janice was a bit... confused by the whole process. But, they were the professionals, she would let them do the work as they saw fit.

Day two began with the big equipment. The cement truck rolled in, running over the couch and dining room table, and started to pour cement on the freshly painted grass and trees. While the cement truck was spreading cement, the bull dozers came rolling through the newly poured cement, clearing out the trees that were adorned with the pieces of art. It was at this time the electrician came in and started to run electrical wires.... and then...

How did this rendition of building a house compare to the process you wrote down? While you or I are not house building experts, it is easy to see that something is wrong with the way of building Janice's house. More specifically, it was the process of how the workers were building Janice's house. Most of us would agree the process should go as follows:

- Get the appropriate zoning permit from the city/township.
- Clear the land and prepare it for building (remove trees/debris, lay the plumbing and power wires, level the land, etc).
- Pour the cement foundation and let it "cure" or harden
- Assemble the frame
- Attach the plywood walls and roofing materials
- More wiring and plumbing through the frame of the house
- Insulation is installed
- Dry wall
- Painting
- Carpet
- Decorations & fixtures

The lesson from Janice's house is that order matters.



Just having the right parts and pieces, or even the right set of skills does not matter if the order of assembly is wrong. Plush, beautiful carpet is nice... which it is one of the last parts to go into the house. Bulldozers are very effective... at the beginning of the clearing out process. Get the events in the wrong order, and what you end up with is a big, giant mess. Forget a step, and the building will fall apart. In China, a brand new 13 story apartment complex toppled to the ground. The problem: the builders neglected to pour the cement when laying the foundation. They skipped a step, and the whole building fell.

Order and process matter.

The Framing Strategy

In an High School & College classes, reading matters. A lot. In early high school classes 20-30% of the information students need to know appears in the reading and is never mentioned in class. In College, the percent increases to 40-50%. In the business world, bosses will send out memos with the expectation that 100% of the commands are read, understood and followed. This is worth repeating: Not everything the student is expected to learn or will be tested on will physically said in class. This is a big change for many students who have come to trust that they just need to pay attention to the teacher, thus making the readings "optional."

Since readings are so important, and since there is limited time in the day, it is important to address how to read like a professional. High School leads to College, and College leads to the working world. Almost all of the reading in a college classes and in the working world are non-fiction. When it comes to reading non-fiction many students approach non-fiction in the same way they read Harry Potter or any other fiction story. They start in the upper left hand corner, they read every sentence, in order, until all the sentences have been read.

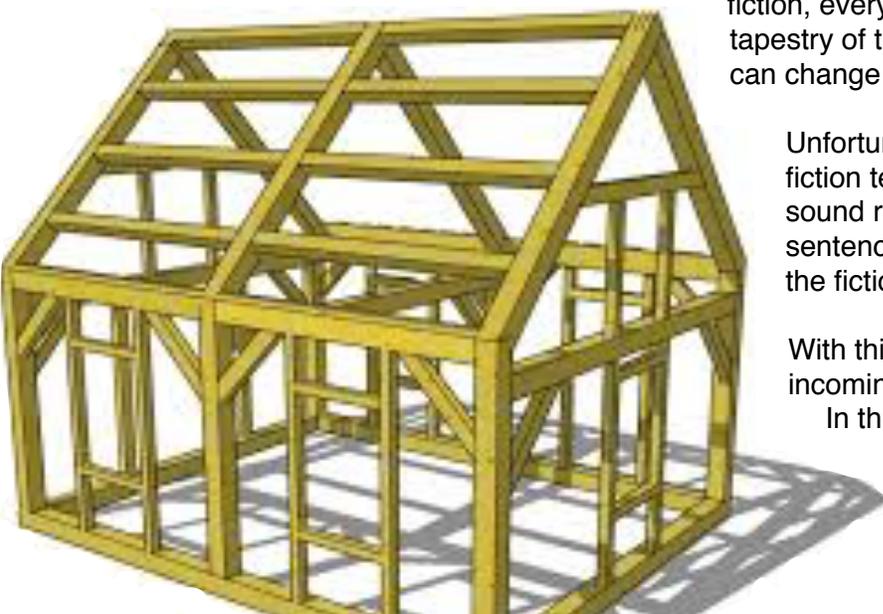
This is a great reading strategy for fiction books, because in fiction, every sentence in a story is another thread in the tapestry of the story line. One sentence, or even one word, can change the entire direction in the arc of events

Unfortunately, non-fiction is not written this way. Non-fiction text is trying to make a logical argument, using sound reason and evidence to support its point. Every sentence serves a purpose, but in a different way then in the fiction stories.

With this in mind, Harvard University teaches their incoming freshman to read non-fiction in a different way.

In this course, the technique will be called framing.

You are to read non-fiction like you build a house: Foundation, Frame, Decoration.



● Foundation: Non-Fiction is written with a purpose in mind. The author is trying to make an argument or prove a point. The first step to reading non-fiction is to figure out the general point before getting into the details of the reading. This allows the brain to understand or comprehend the larger point and get it to “stick” before getting caught up in the details. This is done by the following the first three steps.

- ◆ **STEP 1: READ THE TITLE AND ALL THE HEADINGS & SUBHEADINGS.** The titles, headings and subheadings are where the author outlines the broad ideas they are trying to portray. If you are reading a book with many chapters, read all the chapter title first. If you are reading a chapter, read all the headings and subheadings first. By reading these first, it shows the entire logical argument and lays the foundation for the brain to build the structure upon.
- ◆ **STEP 2: READ THE INTRODUCTION & CONCLUSION.** Typically, a non-fiction text has an introductory paragraph or two that introduces the idea. Then, at the end, there is typically a conclusion paragraph or two where all the big ideas and key points are summarized and connected together. Between the two the author both introduces the purpose of the chapter, while painting a concise picture of the essential learning of the chapter. These help to give clarity and insight to what the text will be about and are good to read when starting a new chapter. It is not cheating to read the last page before reading the ones that came before it. It is what the smart people do.
- ◆ **STEP 3: PAUSE & RECALL.** After reading the Headings/Subheadings & the Introduction/Conclusion, Pause. Close your eyes or look away from the text and force your brain to recall the intellectual outline of the chapter/text. If you can, say it out loud. If you can't do it with 100% recall, re-read them and try again. Do not move on until you can do so. This does two things. First, it really engrains the conceptual framework on the text into the brain. Second, it builds/strengthens the brain's ability to recall information. Once you are able to recall the major premise of the text, your brain now “Understands” the big ideas of the text, and can begin to focus on the details.

● Frame: Now that the foundation of the text has been laid, it is time to build the frame. If the non-fiction text is written correctly, two assumptions can be made. First, each paragraph contains one big idea that relates to the broader theme of the text (in particular, to the major heading/subheading it is located under). Second, the beginning sentence (sometimes first and second sentence) of the paragraph serves as a thesis for the entire paragraph. Understand the first sentence and you understand the paragraph. These first sentences are essential to building the “Frame” in your mind.

- ◆ **STEP 4: READ ALL THE FIRST SENTENCES.** If the first sentences contain the “key concepts” to understanding the point(s) the author is trying to make, then by reading all the first sentences, you will understand the entire argument of the author. Depending on the length and complexity of the text, you can approach this one of two ways: (A) Read all the first sentences of the entire text/chapter or (B) Read all the first sentences of the the bold heading section. The base concept still applies. You can bend and mold how you apply it depending on the day, time and task to what suits you best.
- ◆ **STEP 5: PAUSE & RECALL.** Once all the first sentences are read, pause, look away, and recall. You NEED to be able to understand/explain the flow of the arguments made by the first sentences in the text before moving on. This is where the hard work of learning is done. Once you are able to recall and retell the argument/logical flow of the headings and first sentences, you now understand the text! You understand the broader themes the author is conveying. There are not going to be any major plot twists. No sudden surprises.

● Decoration: The foundation laid and the frame built. NOW it is time to read the rest of the sentences. These sentences are the details to provide depth and clarity to the big ideas. Your brain already understood the big ideas, so you can read with the mindset of gaining better insight. If you come across a sentence or two you do not understand, go back to the big idea of the paragraph and the section, and try to understand the purpose that sentence has a broader stream of thought.

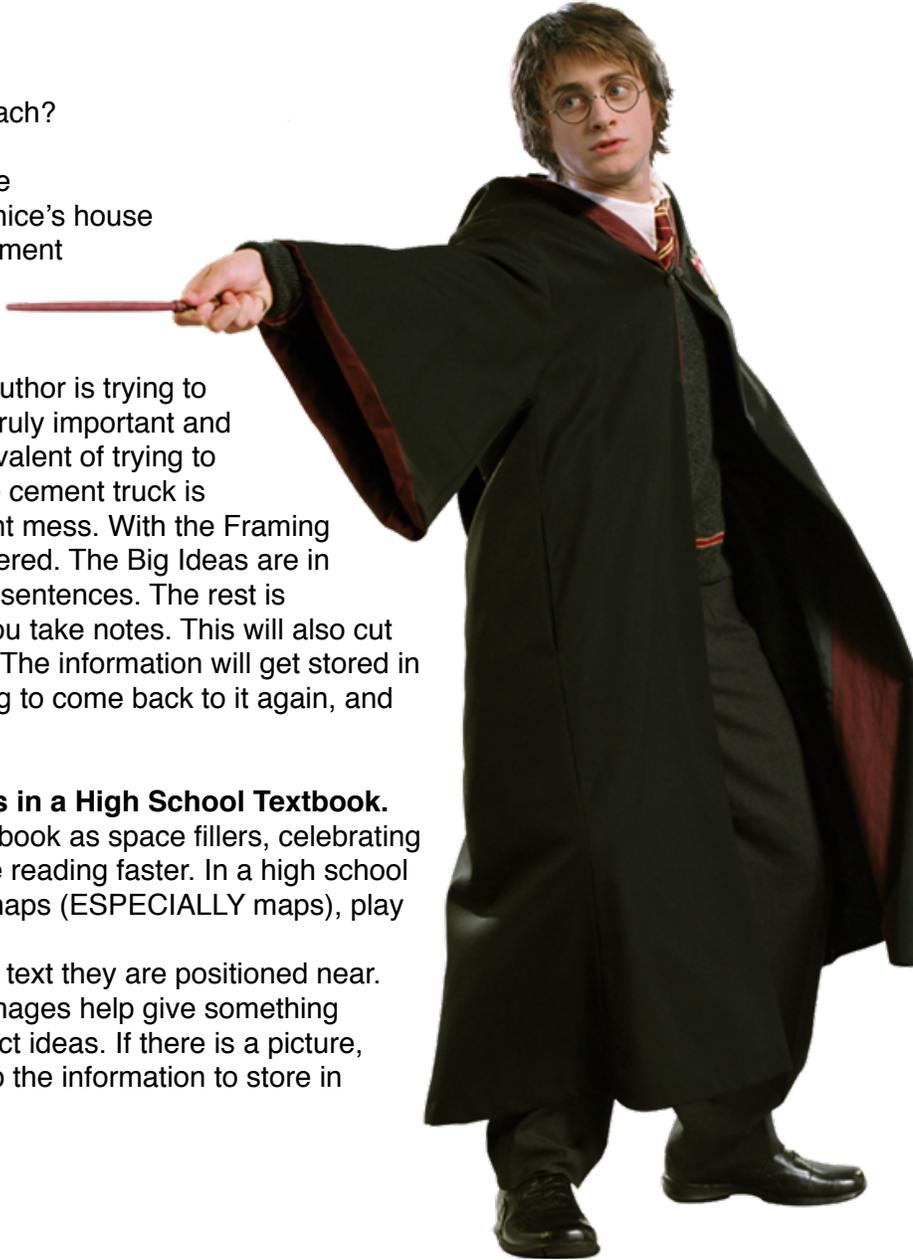
What is at stake if you don't change your approach?

If you try to read non-fiction like Harry Potter, the information in your head is going to look like Janice's house and have the foundational strength of the apartment building in China. When many students read the first sentence, followed by the second, followed by the third... Spend all their mental energy trying to sort out "What is the point the author is trying to make? What information is important? What is truly important and what is just side detail?" This is the mental equivalent of trying to hang pictures, while putting down carpet, as the cement truck is pouring cement. What you end with is a big giant mess. With the Framing Technique, all these questions are clearly answered. The Big Ideas are in the headings. The Key Concepts are in the first sentences. The rest is explanatory detail. This will revolutionize how you take notes. This will also cut down on how much time you will need to study. The information will get stored in your head the FIRST time, as opposed to having to come back to it again, and again, and again...

WARNING!!! A Note about Pictures and Maps in a High School Textbook.

Many students view pictures and maps in a textbook as space fillers, celebrating that as space they can ignore to get through the reading faster. In a high school textbook, it is quite the opposite. Pictures and maps (ESPECIALLY maps), play two key roles:

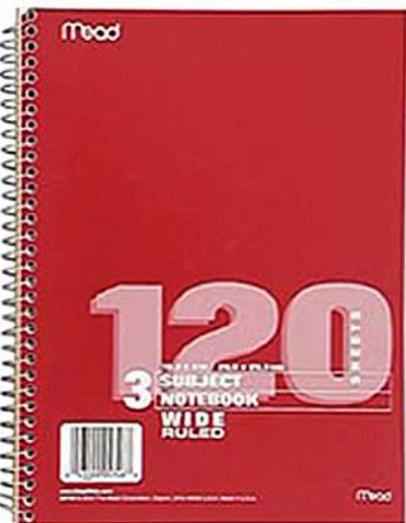
- The images in this book relate to the text they are positioned near. Since the brain stores images, the images help give something visually concrete to otherwise abstract ideas. If there is a picture, understand why it is there. It will help the information to store in your brain better.



About Notebooks - Organization Principles

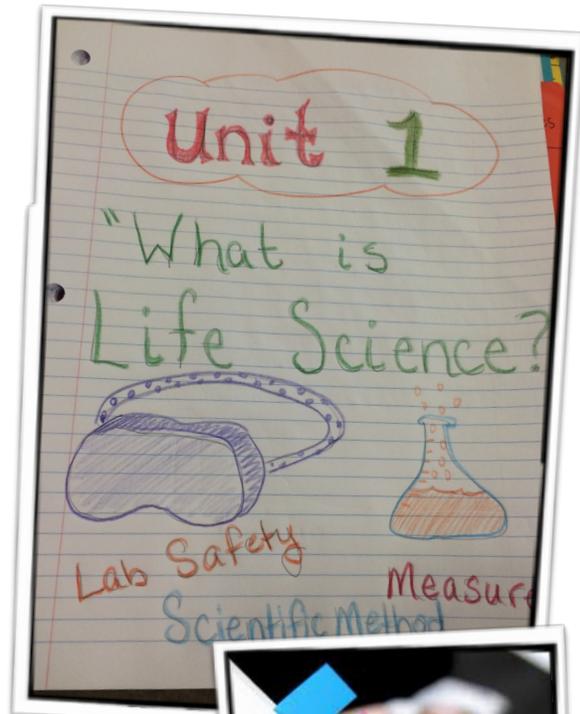
How a student structures their notebook lays the foundation for their success. The notebook is the place where students store summaries of their learning, connections, graphic organizers, and study tools; becoming the "hub" of the student's learning experience. In a college class, if a student does not have an organized notebook, they are setting themselves up to struggle, before the course even begins. Here are a few bullet pointed ideas of simple tips for notebook success:

● One Notebook, One Subject. This cannot be emphasized enough. Each subject needs its own notebook. Don't mix. It is like having a black bean burrito and cookie dough ice cream. Each is tasty in its own right. A burrito tastes good. Ice cream tastes good. Mixing a burrito into the ice cream creates an assimilated mess that is unpalatable to most eaters. So to with learning. When math problems end up next to Shakespeare, intermixed with Population/Migration material... makes it very difficult to be a functional learner at a high level.



The same concept applies with having a folder for class. Have one folder where important papers for JUST that class can be kept. Plastic sheet protectors are a way of taking this concept to the next level, as the papers do not get as beat up. This folder can be kept in the notebook, so that they stay together.

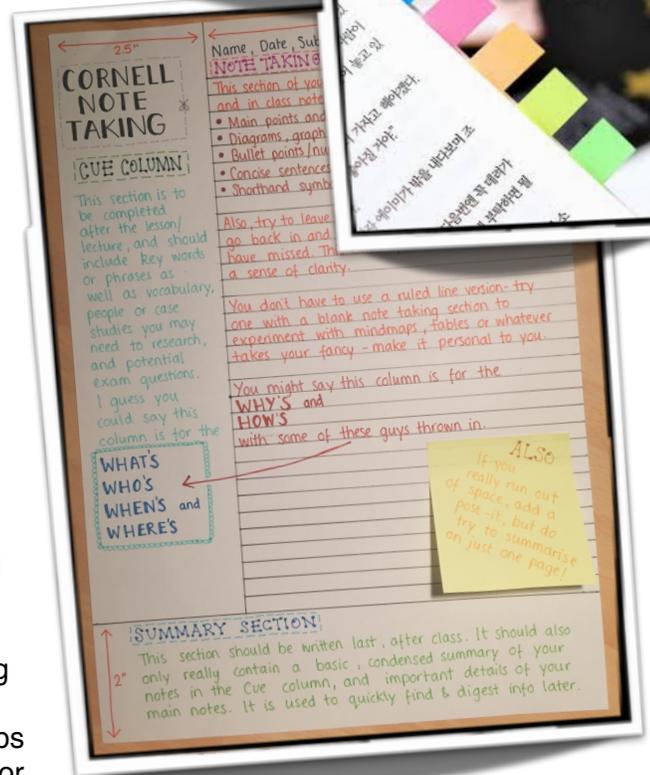
- ◆ **The Binder Variation:** This variation is using a 3 ring binder with dividers and loose leaf notebook paper in place of a notebook. Each activity goes on its own sheet of paper, and that paper gets placed in the appropriate section of the binder. This allows for greater flexibility in organizing information.
- **Have a "Splash Page" for each Unit.** Take the a page, and write in big words "Unit 1: Space Between." Then, start the notes on the next page. When the unit is done, take the next available page, and write "Unit 2..." This way, when you flip through your notebook, it will be very clear where one unit's information ends, and the next begins. This may not seem like a big deal in the first part of the course, but makes a massive difference when reviewing for the midterm, final or AP Exam. If the brain likes structure, then this is a way of giving a visible structure.



- ◆ **Sticky Notes:** Take your organization game to the next level with putting sticky notes in key places. Place a sticky note on the Splash Page so that the end sticks out beyond the page. This way, there is a visible reminder of where a unit begins; helping to navigate to your information faster. This will help you study in less time, because you will spend less time looking for information.



- **Titles.** Put them at the top of the page. If the page has class notes, write "Class Notes." If the information is from a certain book, put the book's name in big letters at the top. Again, this speeds up navigation when you are looking for information (and also ensures credit when the notebook is being graded).



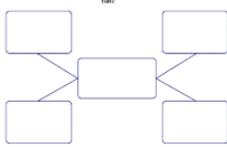
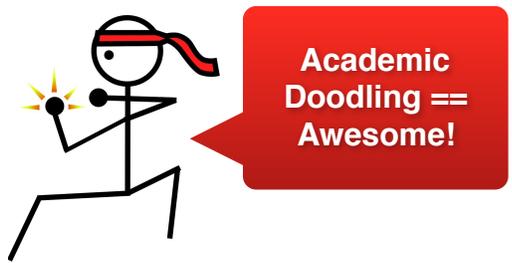
- **Colors.** The brain LOVES color. It is a way of keeping attention, both when taking notes and when re-reading them. It can also add a new-ness, which helps keeps interest higher than it would be otherwise. Color can also be used to be a "hook" to help store information in the brain. Write vocabulary in one color, key themes in another... This is not a requirement, but something that can be experimented with to help be more organized and store information better/faster.
- **Writing Size.** The human recognizes differences and creates patterns in what it sees. If important things are written bigger or bolder (or in a different color), your eyes will see the information faster and will begin to recognize that information as being more important.

2 Column Notes

The Why. In a high school course, there is a lot of reading. As stated before, reading represents 20-30% of the course information a student is required to know that will not be directly explained in class. Taking notes is often viewed by students as a waste of their time. And with the way many students take notes, they are right: they wasted their time. The notes that were taken were worthless and unusable. The purpose behind taking notes is three fold.

- First, it creates an easily portable summary of their knowledge. If taken correctly, the notes provide a key outline of major themes and topics, that should be more accessible to their studying than going back through the textbook.
- Second, the “Framing Strategy” for reading paired with the 2 Column method of taking notes (as explained below) works with the brain to help store information better into long term memory the first time. This results in more robust learning while reading and more success in classroom activities, in less time; with less time being needed to study.
- Third, it is a place to personalize the knowledge. Your notes come to life when you put you on the pages. While you are reading and taking notes, your brain will be pulling up related experiences and pieces of information you have learned in the past. Put them into your notes. Visually capture those “connections” your brain is trying to make. Did that paragraph bring to mind an idea from another chapter? Write it down. A picture or a image? Draw it out. A way of organizing a collection of thoughts? Map it out. Put YOU and YOUR BRAIN into your notes. Then, when you go through your notes later, it will remind and reinforce the learning; helping you to remember and recall the information even better.

The How. As stated above, notes are meant to be a personalized summary of the information, that is more accessible and meaningful than going back through the text and re-reading all the information a second time. As the amount of knowledge grows, the system needs to be organized in a way that it can be quickly navigated. A very effective way of doing is the 2 Column Notes strategy (also referred to at other institutions as Cornell Notes). This is a note taking strategy that works WITH the Framing strategy, as described above. The two work together in concert, to make for better, faster learning, with less effort.

Chapter Title - Section A		
Headings	<ul style="list-style-type: none">• Big Idea from Paragraph 1<ul style="list-style-type: none">- Imp. Detail- Example- Personal Connection• Big Idea from Paragraph 2<ul style="list-style-type: none">- Vocab Word & Def- Example	<div style="border: 1px solid black; padding: 5px; text-align: center;">Connecting Idea in different unit, Something important to stand out...</div> 
Headings	<ul style="list-style-type: none">• Big Idea from Paragraph 3<ul style="list-style-type: none">- Personal Connection: Agree/disagree/emotion• Reflections on Map #1<ul style="list-style-type: none">- Trend #1- Patterns, Comparisons	
SUMMARY	<ul style="list-style-type: none">• Short recap of over concept(s)	

- **Step 0:** Use ONE 3 or 5 Subject Notebook or Binder for this course (as explained above). Digital note taking softwares like Evernote can be functional (use the table feature to create two columns. Create one row for each heading/subheading).
- **Step 1:** Put the Title of the reading in BIG WORDS at the top. This is the first step to being able to navigate your notes later (and for the teacher to better award points if there is a notebook check).
- **Step 2:** Draw a line down the length of the page, 2-3 inches from the left margin.
- **Step 3:** Begin The Framing Reading strategy.

- ◆ The Left Column: Place headings & Subheadings. The purpose of this column is for navigation. It shows where information is on the page, for easy navigation.
- ◆ The Right Column: This is where the key important information and take aways from text are placed. The following should be placed on the right column
 - ▶ An abbreviated summary of the first sentence(s) of each paragraph. These are the big ideas. They need to appear in the notes. Choose a special symbol that is ONLY used for these key concept/first sentence pieces of information. The brain stores images. When reading your notes later, it will visually help your brain differentiate between big idea and small detail
 - ▶ Beneath each big idea, indent and have a second symbol for other important details, facts, vocabulary words, that you think are essential knowledge to understanding the main idea of the paragraph. Write down examples that demonstrate key ideas. Examples are key, both to connecting ideas into your brain, but also for success in the course. Having the second symbol is crucial for visibly seeing the difference between main ideas and smaller details.
 - ▶ DO NOT USE complete sentences. Abbreviate. Use symbols to make your point. Draw arrows. Put emotional expression and emoji's. Use colors, either color coding or just to change things up to keep your attention. This will save you immense amounts of time, both writing your notes and re-reading them. Your notes should NOT be longer then the original text. Example:

“There is uneven development in impoverished countries in Africa.”



Africa: Dev => Uneven :(

- ▶ In the other empty space, put other insights. Word bubbles with connections from other units, or reminders of important relationships. Draw pictures related to the topic. Put graphic organizers, visualizing the organization of information. Insert a big question mark (?) by areas you didn't fully understand or exclamation point by something super-important. How you use this space is what will breathe life and value into your notes and note taking, working WITH your brain to better store and recall knowledge.

- **Step 4:** Summarize. At the end, write a brief summary of the big ideas or take aways from the section of text.

Example

On the next page is an example of what a two column note style would look like in action:



Does Geography Determine Destiny?

Env.
Determinism

- Ratzel: **Env. Determinism** - Earth Controls Humans
 - Much of human hist, controlled success fail.
 - See: Sub-Saharan Africa, Bhutan vs. USA/Europe

Possibilism

- Rejection of Env. Det.
 - Machines < Earth
 - Flying, Drilling, Engines, AC
 - Blanche (Late 1800s): **Possibilism** - Humans control earth

Solution?

- Possib. Critics
 - Still inequality & uninhabitable land
 - Natural disasters = unstoppable

Summary

Q: How much control do humans have over their fate? More w/ machines then before.
Still vulnerable to nature + inequality.



Just like movie:
Cast Away. W/
Industrial Tools =
Powerful. Without,
vulnerable....
WILSON!!!!