

Intro to Notebook Pages

Regular Chem

This is all the Intro to the Notebook Reference Sheets we will put in the first set of pages in our Interactive Notebook.

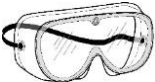


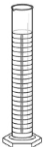

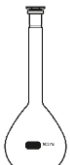



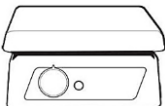
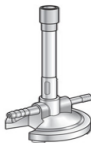













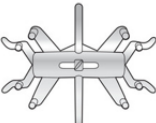
You are not required to print! I understand that may not be possible for everyone. However, if you can print it will make things a little easier! **There are blank pages so it can be printed double sided!** Some printers don't print double sided, but you can tell it to print the odd pages first, take the papers that just printed and put them back in the printer tray, and then print the even pages. I am trying to figure out how I can print packets for students and hopefully leave them outside of school for people to pick up if they want a packet. As soon as I know whether or not this is allowed I will let you know!

Please note – I will never ask you to print this many pages in a single document again! These are all of the “reference pages” that we use all year long. All of these pages are on the class website, always! I am really hoping to be able to get you printed packets! If you can't print these pages then make sure to skip those page numbers in your notebook and leave them blank so that when I can get you packets down the road then you can glue them into the blank pages you skipped.

www.mychemistryclass.net

Please keep in mind that we are operating under the assumption that we will return to school at some point this year! So make sure you are doing your work, keeping your work, and keeping it organized! I will check your Interactive Notebook when we return so you want to make sure you are setting yourself up for success by doing your work now!

Common Laboratory Equipment

<p>Safety Splash Goggles</p> 	<p>Beaker</p> 	<p>Erlenmeyer Flask</p> 	<p>Graduated Cylinder</p> 	<p>Distilled Water Wash Bottle</p> 
<p>Test Tubes</p> 	<p>Volumetric Flask</p> 	<p>Spatulas and Scoopulas</p> 	<p>Disposable Pipette</p> 	<p>Rubber Policeman</p> 
<p>Beaker Tongs</p> 	<p>Crucible Tongs</p> 	<p>Test Tube Tongs</p> 	<p>Hot Plate</p> 	<p>Bunsen Burner</p> 
<p>Flint Striker</p> 	<p>Ring Stand</p> 	<p>Iron Support Ring</p> 	<p>Wire Gauze with Clay Center</p> 	<p>Crucible with Lid</p> 
<p>Test Tube Rack</p> 	<p>Test Tube Brush</p> 	<p>Rubber Stoppers</p> 	<p>Glass Watch Glass</p> 	<p>Mortar and Pestle</p> 
<p>Filter Flask</p> 	<p>Buchner Funnel</p> 	<p>Aspirator for Sink</p> 	<p>Glass Funnel</p> 	<p>Evaporating Dish</p> 
<p>Volumetric Pipette</p> 	<p>Rubber Pipette Bulb</p> 	<p>Forceps</p> 	<p>Burette Clamp</p> 	<p>Burette</p> 

Keeping Interactive Notebooks in Science

The Left Side

The left spiral page demonstrates your understanding of the information from the right side page. 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.

What goes on the Left Side? Output goes on the left side! Left side items include:

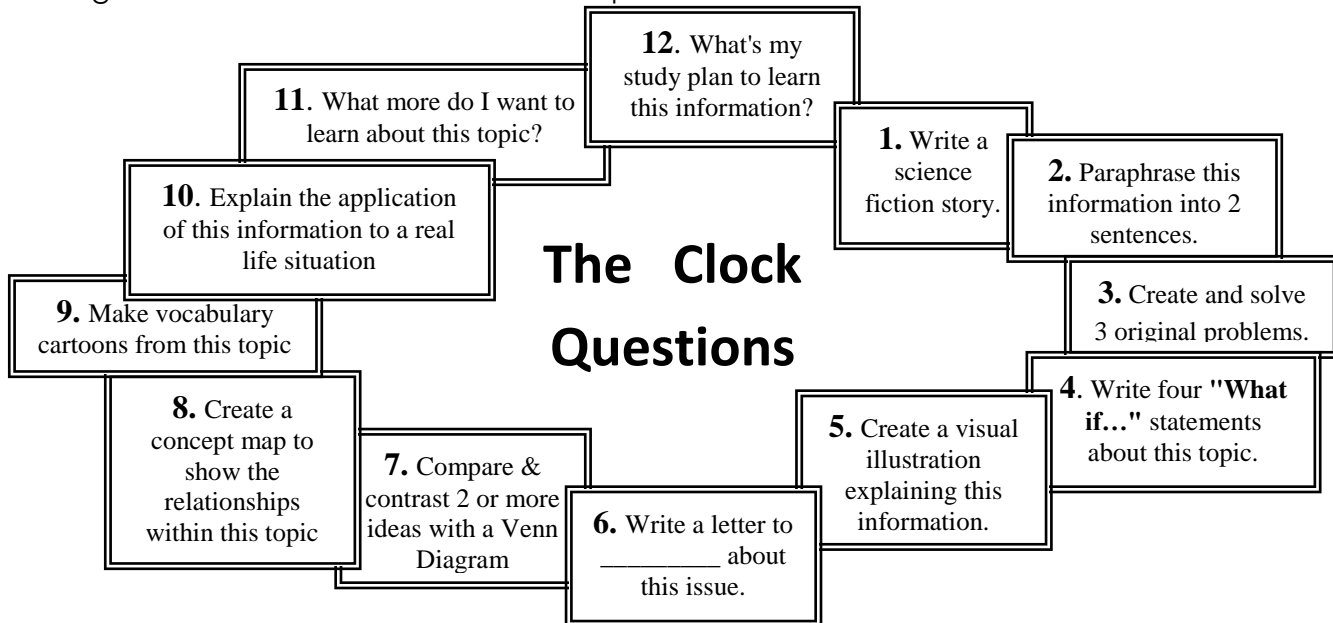
- | | | |
|------------------------|--------------------------------|---|
| * Brainstorming | * Metaphors and analogies | * Significant statements |
| * Discovery headlines | * Venn diagrams | * Flowcharts |
| * Biography posters | * Data and graphs you generate | * Graphic organizers |
| * Concepts maps | * Analysis writing | * Drawings |
| * Riddles | * Reflection writing | * Writing prompts |
| * Your questions | * Quickwrite | * Other creative avenues for processing information |
| * Pictographs | * Mnemonics | * Poetry and songs |
| * Cartoons | | |
| * Foursquare analogies | | |

Things to know about left sides

- Every Left side page gets used.
- Always use color... It helps the brain learn and organize information.
- Labs, free choice assignments, drawings, etc are left side pages.
- Homework problems are left sides (but they don't take the place of processing your notes on the right side pages with color annotations and KCQ boxes!)

The Clock Questions

The 12 clock questions are just a few ideas to help focus your attention and guide your learning of the science content and concepts.



Keeping Interactive Notebooks in Science

The 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? Input goes on the right side!

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

- Always start the page with the Target at the top LEFT of the page in RED pen. Targets are given in class, or can be found on the Notebook tab of the class website.
- Give your notes a title on the top line. Suggested title will be given during class.
- Right sides have odd numbered pages.
- The right page is for writing down information you are given in class.
- You will usually use KCQ style notes for lecture, discussion, text, etc. Do your KCQ's the SAME DAY you took the notes! If you will be doing a different type of notes for a day you will be told in class and shown how to set up your notes KCQ is the "default" type of notes.
- For the Q section of your notes it can be a question you are thinking about during lecture, a question you think others might have, or if you should brainstorm a potential test of quiz question. You will be using "Costa's Levels of Questioning" to develop useful and complex questions. You must have two questions per Q box.
- Write legibly. Use at least three colors to make important information stand out. Your pencil or black/blue pen does not count as a color! These "color annotations" are required! Make sure you are using the color in a meaningful way. Studies have shown that our brain responds to the color even if we don't prefer the way our notes look with it. Use the color annotations to draw attention to key items/facts/info.

KCQ Note Template

<p>TARGET: I can describe and rank the strengths of different intermolecular forces</p>		
<p><i>Strength of Intermolecular Forces</i></p> <hr style="border: 0.5px solid black;"/> <p style="text-align: center;"><i>This is where you would take your class notes for the day. Your style, but must have class requirements met</i></p>		
<p><u>K</u>ey vocabulary and/or equations</p>	<p><u>C</u>onnections to prior content</p>	<p><u>Q</u>uestions</p>

EXTRA PROCESSING TECHNIQUES

Haiku Assignment

Haiku is a contemplative poetry that emphasizes nature, color, season, contrasts and surprises. Usually it has 3 lines and 17 syllables distributed in a 5, 7 and 5 syllable pattern. It should show a sensation, impression or drama of a specific fact or concept. It's almost like a photo of some specific moment. More than inspiration, it's need meditation, effort and perception to compose a real Haiku. Using a Haiku assignment in science requires student to concentrate on the major concepts and vocabulary of the assigned topic. Doing this creates links between the information and how the student's perceptions.

Student Instructions: *Haiku is a form of poetry from Japan. It is a minimalist form of poetry with the following form*

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

**Slimy earthworm squirm
Deeper into the wet ground
To cultivate land**

In an **OUT (LEFT PAGE)** section, you must write a Haiku about the assigned topic. It must follow the pattern and deal with any aspect of topic covered in class. The section must have a border and artwork reflecting the topic - you pick the aspect you wish to emphasize in the haiku and artwork. There must be a short 3 to 5 sentence explanation telling how the Haiku shows an understanding of the assigned topic.

Cinquains

A cinquain is a five-line poem written about a single concept, object or idea. Cinquains were developed by an American poet, Adelaide Crapsy, after examining the Japanese haiku format. The format is a short, unrhymed poem of twenty-two syllables and five lines. The five lines contain 2, 4, 6, 8 then 2 syllables. Each line is supposed to deal with a specific aspect of the cinquain's topic.

Water Cinquain – An Example

- The first line consists of two syllables (the title).
- The second line consists of four syllables (describes the title).
- The third line consists of six syllables (states an action).
- The fourth line consists of eight syllables (expresses a feeling).
- The last line consists of two syllables (another word for the title).

**Raindrop
Moisture, Falling
Sustain, Nourish, Cleansing
Teardrop, Diamond, Dropping, Earthward
Dewdrop**

Limerick Assignment

A limerick has FIVE Lines. The last words of the first, second and fifth lines rhyme with each other. The last words of the third and fourth lines rhyme with each other. The first, second and fifth lines are longer than the third and fourth lines. The pattern of sounds follows the pattern: Da DUM da da DUM da da DUM

General Guidelines For The Limerick Assignment

1. The form or pattern of limerick writing must be followed.
2. The limerick must be original and not copied from somewhere
3. The limerick must be G or PG-13 rated. Anything else gets you into trouble.
4. The Science topic or concept assigned must be addressed in the limerick.

Physics Topic: Heat and Energy

The physics test was quite near-o,
And all thought everything was quite clear-o;
"Why study this junk
I'm sure I won't flunk."
But then he earned an Absolute Zero

Songs - BUT I CAN'T SING!

Songs must have lyrics (the words) written down but may be sung aloud. Do not write a song on a general topic (plants, chemical reactions, motion and so on). Wide-open topics will be overwhelming from the start. Select a specific topic. I as the teacher will specify a length, specific words, concepts and ideas to be used or addressed in the song. It is useful to select a popular tune then change the words. There will be a minimum length to the song. If you really enjoy writing or playing music, you may not stop writing just because a specific length is reached.

For the Love of Newton
Keep doin' what your doin'
Love of my life,
Cause the force of your love,
makes my heart uptight,
Cause Netwon's Laws, Baby,
Apply to love too

Riddle Cards

A possible format for placing riddles into interactive notebooks is similar to that used with vocabulary cards. The riddle is placed on the front of a card. The answer and explanation are placed on the back of the card. The card is then taped onto OUT section of the notebook.

- One side of the RIDDLE CARD has the riddle and artwork written on in.
- The riddle should contain one or more clues. The clues might or might not rhyme, but must refer to aspects of the answer.
- The riddle must have artwork on front of the card. The artwork should reflect the topic of the riddle with a clue that MIGHT help solve the riddle.
- The artwork must be in color. At least 4 different colors (besides than black or white must be used).
- The BACK of the card has the answer to the riddle. The answer must be clearly and cleanly written across the top of the card.

Below the answer an explanation of the clues and how they lead to the answer must be given. An explanation is usually 2 to 3 sentences in length.

Cartoon Project – Writing and Processing in Science

If the humor of a language is understood, then a person is mastering the language - How does the humor relate to science? - What does a person need to know or understand before humor makes sense? - What science concepts are needed for a student to understand the humor in a situation or problem?

Guidelines – The cartoon does NOT have to be funny

The Front

- Single Frame cartoon (like a Farside)
- 4 colors minimum (Black and White DO NOT COUNT)
- Maximum 2 lines for a caption (speaking bubbles are okay, but not encouraged)

The Back

- Name of the Student
- The science concept being shown is stated
- A paragraph explaining why or how the cartoon shows or addresses the concept stated is written

Copy Change

Complete the focusing frame for your object. Be sure to repeat the first line at the end to emphasize its importance. When you are done, share with a partner.

The important thing about _____
is _____.
It's true that _____
and that _____
and that _____
But the important thing about _____

Science Photo Project

Technology Tie In

Take a photo then explain what aspect of science is shown in a photo. The photo must be 8 x 10 inches. The photo may be in color or black and white. If the photo is taken with a digital camera, the electronic file must be included on a disk with the essay and photo. A 250 maximum word essay must be written to explain the science concept shown in the photo. The essay and photo must be given a title. The essay must identify the main science concept of the photo. The essay must explain how the photo shows the concept. An explanation as to why the photo is considered to be NATURAL or CONTRIVED must be part of the essay. The science in the photo must be explained in simple terms. The essay must address any special or unique steps needed to compose or take the photo.

Written on the back of the photo

- Student Name
- Natural or Contrived photo
- Main Science Concept shown in the photo

Essay Main Points

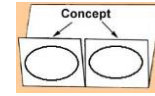
- 250 word maximum essay
- Must identify the main science concept in the photo
- Must identify if the photo is Natural or Contrived
- Must explain how the photo shows the main science concept
- Must explain any special or unique steps to take the photo

Fabulous Fold-Ups!

Concept maps demonstrate relationships between ideas. They help you understand concepts by clarifying ideas and terms, and by dividing complex concepts or processes into smaller parts. You can use concept maps to relate, define, brainstorm, and sequence.

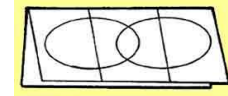
Instructions for a Concept Map Fold-Up:

1. Fold a sheet of paper along the long or short axis, leaving a two-inch tab uncovered.
2. Fold in half or in thirds. (Additional tabs can be created by folding into more parts.)
3. Unfold and cut along the inside fold lines to create tabs.
4. Have students identify the concept by writing key words or using pictures on the two-inch tab. Draw arrows from the central idea to the tabs, where students record data underneath each tab.



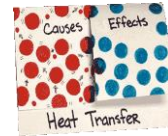
Instructions for a Venn Diagram Fold-Up:

1. Fold a sheet of paper in half like a hotdog.
2. With the paper horizontal, fold the right edge toward the center, trying to cover one half of the paper.
3. Fold the left side over the right and crease to form three tabs.
4. Draw two overlapping ovals on the front.
5. Cut up the two valleys on one side only



Instructions for a Focus Skills Fold-Up (Cause and Effect):

1. Fold a sheet of paper in half horizontally (hamburger) so that one side is one inch longer than the other side.
2. Cut the shorter side in half, up towards the fold (mountain top) to create two flaps.



Vocabulary Card Instructions

The purpose of a vocabulary card is to assist students in learning and understanding terms, phrases or concepts covered in class and necessary for understanding.

Vital Statistics: Word (spelled correctly), Pronunciation (optional), Definition – meaning of word using terms the student understands (1 of the 3 sentences), Link – a word useful in remembering it the meaning should be known; often related or rhyming with the vocabulary word.

Use 2 other sentences helping delineate the meaning of the vocabulary word. These should be student generated.

- The FRONT side of the card has a cartoon or diagram showing an example or application of the term. The diagram or cartoon must have at least 4 different colors (other than the white of the paper). There should be a minimum of writing and explanations on this side of the vocabulary card.
- The BACK of the vocabulary card has the word or term, a LINK and three different sentences using the term. The sentences may be a definition, an example or another use showing or interpreting the word or phrase.

Advertisement	Comic Strip	Graphs	Newspaper Article	Scrapbook
Advice Columns	Clustering	Greeting Card	Nursery Rhyme	Skit
Announcements	Collage	Grocery Lists	Obituary	Slogans
Awards	Compare/Contrast	Headlines	One Pager	Society Pages
Banner	Crossword Puzzle	Horoscopes	Persuasive Essay	Song/Rap
Beauty Tips	Dictionary	Illustration	Picture	Sports Stories
Bedtime Story	Editorial	Instructions	Poetry	Story Board
Billboard	Encyclopedia Entry	Interview	Political Cartoons	Story Map
Biography	Fables	Invitation	Postcards	Summaries
Board Game	Facial Expressions	Job Application	Problem Solution	Thank You Note
Brainstorming	Fashion Articles	Jokes	Questionnaire	Timeline
Brochure	Finish This	KWL	Questions	Travel Brochure
Bumper Sticker	Flow Chart	Letter	Ransom Note	TV Commercial
Campaign Speech	Fold-ups	Love Notes	Real Estate Notice	Venn Diagram
Cartoons	Fortunes	Magazine Clippings	CD/Book Cover	Video
Cause/Effect	Four Square	Maps	Remedies	Wanted Poster
Cereal Box Cover	Good News/Bad	Masks	Report Cards	World Map
Character	News	Matrix Menus	Resumes	Word Search
Chart	Gossip	Monologues	Riddles	???
Children's Book	Graffiti	Newscast	Sales Pitches	

Put glue here in this boxed area so your paper can flip along the dotted line so the paper can be double sided! We call this a "Flippy!"

OVERVIEW OF INTERACTIVE NOTEBOOK REQUIREMENTS

General

- Your name and class period is clearly visible on the front of your notebook
- Page numbers CLEARLY marked in bottom outside corners of all pages
- Your handwriting is legible enough that Mrs. Farmer can tell what you are writing!
- The pockets of your notebook are empty except for allowed materials
- Your bookmark is placed on the page Mrs. Farmer asks it to be on
- You have been nice to your notebook! It isn't beat up, torn, crumpled, etc
- Each page can/will be graded using the 0-3 or 0-5 grading rubric.
Don't forget –Above and beyond!

Right Side Pages

- Target is in red pen at the very top of every right side page
- Each set of notes has a descriptive title
- Notes are KCQ style when required
- KCQ style notes have excellent key terms, connections and higher level questioning
- Notes incorporate "color annotations" using a minimum of three additional colors in a meaningful way that adds to the learning
- Non KCQ style pages are complete and handouts are completed and glued in all the way
- Notes are not cramped – you use empty space to help add to the organization and learning
- Includes effective diagrams and pictures

Left Side Pages

- Demonstrates extensive left side processing of information – it looks like you actually are using your notebook to think and learn!
- Pages are complete and handouts are completed and glued in all the way
- Uses color in a meaningful way throughout processing activities
- Includes effective diagrams and pictures
- Uses a variety of processing techniques when allowed to demonstrate different learning styles

EXAMPLE SCORING RUBRICS

These rubrics will give you an idea about how small assignments will be graded (such as fold-ups, diagrams, notes, worksheets etc). Not all assignments will be 3 or 5 points, but the general categories will hold true for all assignments. In order to earn full points you must turn in a "WOW product." You will not earn an A by simply meeting the requirements, you must exceed the requirements.

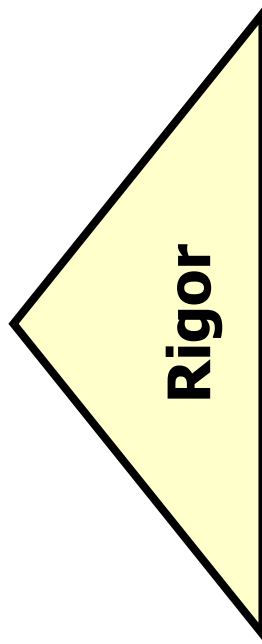
A is for "Above and beyond!"

THREE POINT SCORING RUBRIC	FIVE POINT SCORING RUBRIC
<p>3 Points - (a WOW product)</p> <ul style="list-style-type: none"> all of the requirements are evident and EXCEEDED the product is VERY neatly done and EXTREMELY well organized the product shows LOTS of creativity and is colorfully illustrated completed on time 	<p>5 Points - (a WOW product)</p> <ul style="list-style-type: none"> all of the requirements are evident and EXCEEDED the product is VERY neatly done and EXTREMELY well organized the product shows LOTS of creativity and is colorfully illustrated completed on time
<p>2 Points - (What is EXPECTED)</p> <ul style="list-style-type: none"> the requirements are evident the product is neatly done and organized the product shows some creativity and is illustrated completed on time 	<p>4 Points - (What is EXPECTED)</p> <ul style="list-style-type: none"> all of the requirements are evident the product is neatly done and well organized the product shows creativity and is colorfully illustrated completed on time
<p>1 Point – (One or More parts is missing)</p> <ul style="list-style-type: none"> few of the requirements are evident the product is fairly neatly done and partly organized the product shows little creativity and few illustrations completed on time 	<p>3 Points – (Almost What is EXPECTED)</p> <ul style="list-style-type: none"> the requirements are evident (maybe 1 or 2 are missing) the product is neatly done and organized the product shows some creativity and is illustrated completed on time
<p>0 Points - (Does not meet Standards)</p> <ul style="list-style-type: none"> Unscorable or no product 	<p>2 Points – (Sort of What is EXPECTED)</p> <ul style="list-style-type: none"> the requirements are evident (maybe 3 or 4 are missing) the product is done and sort of organized the product shows little creativity and is illustrated completed on time
	<p>1 Point – (Two or More parts is missing)</p> <ul style="list-style-type: none"> MANY of the requirements are NOT PRESENT the product is VERY POORLY done and POORLY organized the product shows little TO NO creativity and the illustrations IS POORLY DONE completed on time
	<p>0 Points - (Does not meet Standards)</p> <ul style="list-style-type: none"> Unscorable or no product

Costa's House

Costa's Levels of Questioning

Helping you to develop more complex questions



Third Floor - Creating

Evaluate - Generalize - Imagine - Judge
 Predict - If/Then - Speculate - Hypothesize
 Forecast - Idealize - Apply the principle

Second Floor - Processing

Compare - Contrast - Sort - Distinguish
 Explain why - Infer - Sequence
 Analyze - Synthesize - Make analogies

First Floor - Basic

Complete - Count - Match - Name - Define
 Observe - Describe - Identify - List - Select
 Recite - Scan

Examples of Different Level Questions

Level 1 - Basic	Level 2 - Processing	Level 3 - Creating
<ul style="list-style-type: none"> • What information is given? • What are you being asked to find? • What formula would you use in this problem? • What does _____ mean? • What is the formula for...? • List the... • Name the... • Where did...? • What is...? • When did...? • Describe in your own words what _____ means. • What science concepts does this problem connect to? • Draw a diagram of... • Illustrate how _____ works. 	<ul style="list-style-type: none"> • What additional information is needed to solve this problem? • Can you see other relationships that will help you find this information? • How can you put your data in graphic form? • How would you change your procedures to get better results? • What method would you use to...? • Compare and contrast _____ to _____. • Which errors most affected your results? • What were some sources of variability? • How do your conclusions support your hypothesis? • What prior research/formulas support your conclusions? • How else could you account for...? • Explain the concept of... • Give me an example of... • What occurs when...? • What was important about...? • Explain how you calculate... • Does it make sense to...? 	<ul style="list-style-type: none"> • Design a lab to show... • Predict what will happen to _____ as _____ is changed. • Using a science principle, how can we find...? • Describe the events that might occur if... • Design a scenario for... • What would the world be like if...? • What would happen to _____ if _____ (variable) were increased/decreased? • How would repeated trials affect your data? • What significance is this experiment to the subject you're learning? • What type of evidence is most compelling to you? • Do you feel _____ (experiment) is ethical? • Are your results biased? • Pretend you are...

Common Types of Notes

KCQ Notes	Summary Notes
<ul style="list-style-type: none"> • Three boxes drawn on bottom of paper <ul style="list-style-type: none"> ○ Key terms ○ Connections ○ Questions (two questions) • Note section is your choice of style • Notes must contain at least three colors in addition to pen/pencil 	<ul style="list-style-type: none"> • One long box drawn on bottom of paper <ul style="list-style-type: none"> ○ Five lines of binder paper ○ Full sentences ○ Summarize the CONTENT of notes ○ Third person • Note section is your choice of style • Notes must contain at least three colors in addition to pen/pencil
Add To It Notes	Research Notes
<ul style="list-style-type: none"> • You will go over a source of information on your own without the teacher <ul style="list-style-type: none"> ○ PowerPoint, video, book, etc ○ Take notes ONLY in blue/black pen or pencil ○ Leave space to add to your notes later in class • In class the teacher will go over a more detailed version of the information <ul style="list-style-type: none"> ○ You will take notes in GREEN PEN so the new information stands out • You will add one or two other colors to your notes to make the information pop 	<ul style="list-style-type: none"> • You will be given a set of topics, key terms, or guiding questions to be glued into your notebook • You will be given sources of information that will relate to the guiding topics given <ul style="list-style-type: none"> ○ Use the information sources and take notes on the material ○ The teacher will go over the important aspects of the information at the end
Visual Notes	???
<ul style="list-style-type: none"> • Notes taken by drawing pictures/diagrams <ul style="list-style-type: none"> ○ Labeling is ok ○ Must contain at least three colors in addition to pen/pencil 	<ul style="list-style-type: none"> • Occasionally notes will be done in a style not mentioned here because it best suits the information. <ul style="list-style-type: none"> ○ You will be given instructions on how to set up the page during class
Important Information	
<ul style="list-style-type: none"> • All right hand pages must have targets on them – at the top of the page in red pen • If you are absent for a day of notes you must make them up using the class website. You get one day for every day you were gone. • All notes must be legible or they cannot be scored • All notes are required – they are not optional! • Notes are typically scored on a 0-3 or 0-5 scale • Notes may be graded in class immediately following the note taking session, the next day, a few days later, or during a notebook check • Notes may be graded for a completion credit and then graded later for quality. Typically they are graded the next day in class for completion, and then are graded again for quality during a notebook check • If you do not finish your notes and therefore get a low score when they are graded, please go home and finish them! They may be graded again later down the road and you can earn full credit for that grade even if you earned a zero or low score for an earlier grade. 	