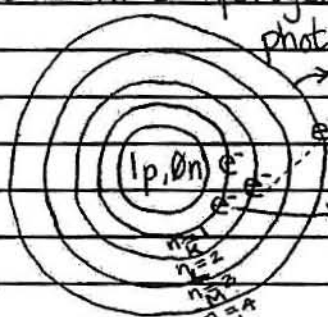
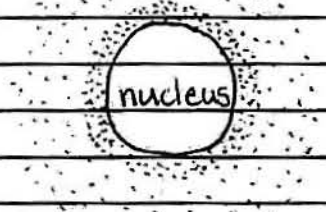






Topic: <u>Graphing Linear Equations</u>	Name: _____ Class: <u>Algebra</u> Period: <u>4</u> Date: _____
Questions/Main Ideas	Notes
Standard form -	$Ax + By = C$ ex. $4x + 3y = 9$
Slope intercept form -	$y = mx + b$ ex $y = 2x + 1$
slope -	rise = change in y value = $y_2 - y_1$
	run change x value $x_2 - x_1$
$2x + 4y = 20$	
find the slope:	$2x + 4y = 20$
subtract $2x$	$-2x \quad -2x$
	$4y = -2x + 20$ slope = $-\frac{1}{2}$
divide by 4	$\frac{4}{4}y = \frac{-2x}{4} + \frac{20}{4}$ y-intercept = 5
	$y = \frac{1}{2} - \frac{1}{2}x + 5$
How do you graph a slope?	* Graphing
	1. Plot y-intercept
	2. follow slope
	3. connect line
Find the slope:	$(6, 4), (3, 2)$
find slope	$\frac{y_2 - y_1}{x_2 - x_1} = \frac{2 - 4}{3 - 6} = \frac{-2}{-3} = \frac{2}{3}$
	$y = \frac{2}{3}x + b$ $y = \frac{2}{3}x + 0$
substitute	$4 = \frac{2}{3}(6) + b$ slope-intercept = 0
	$4 = 4 + b$ $b = 0$ y-intercept = 0
<b>Summary:</b> Today in class we learned the standard form ( $ax + by = c$ ) the slope intercept form ( $y = mx + b$ ) and what a slope is (rise over run) we also learned that when graphing, you plot the y first then follow the slope.	

<p>Topic: <u>Atomic Model</u></p>	<p>Name: _____                  Class: <u>Chemistry</u>                  Period: <u>4</u>                  Date: _____</p>
<p>Questions/Main Ideas</p>	<p>Notes</p>
<p>What does Niels Bohr's atomic model look like?</p>	<p>Niels Bohr's Hydrogen Atomic Model (Hydrogen Atom)</p> 
<p>What is the difference between the ground state and the excited state?</p>	<p>ground state</p>
<p>How many electrons can be on the same orbit?</p>	<ul style="list-style-type: none"> <li>• <math>n=1</math> <math>2e^-</math></li> <li>• <math>n=2</math> <math>8e^-</math></li> <li>• <math>n=3</math> <math>8e^-</math></li> <li>• <math>n=4</math> <math>18e^-</math></li> </ul> <p>Excited: Whenever an electron moves up.</p>
	 <p>Ground State: Stays on the same level; lowest possible level.</p>
<p>Why was Bohr's model proven wrong?</p>	<ul style="list-style-type: none"> <li>• It was said that Bohr's model was wrong.</li> <li>• Electrons do not travel in an orbit around the nucleus.</li> <li>• They travel on a sphere-shaped system.</li> <li>• There are more electrons closer to the nucleus than further away.</li> </ul>
<p><b>Summary:</b> Niels Bohr proposed that electrons move around or circle the nucleus in an orderly fashion, through orbits. It's believed that in the 1<sup>st</sup> energy level, there are only 2 electrons allowed, 8e<sup>-</sup> on the 2<sup>nd</sup>, 8e<sup>-</sup> on the 3<sup>rd</sup> and 18e<sup>-</sup> on the 4<sup>th</sup>. There's also the 2 types of atom states (ground/excited). Bohr's model was later proven wrong.</p>	



# Vocabulary: Costa's Levels of Thinking and Questioning



## LEVEL 1

### Remember

Define	List	Recall	Match
Repeat	State	Memorize	Identify
Name	Describe	Label	Record

### Show Understanding

Give examples	Rewrite	Review	Tell
Restate	Recognize	Locate	Extend
Discuss	Explain	Find	Summarize
Express	Report	Paraphrase	Generalize

## LEVEL 2

### Use Understanding

Dramatize	Use	Translate	Interpret
Practice	Compute	Change	Prepare
Operate	Schedule	Pretend	Demonstrate
Imply	Relate	Discover	Infer
Apply	Illustrate	Solve	

### Examine

Diagram	Question	Analyze	Criticize
Distinguish	Inventory	Differentiate	Experiment
Compare	Categorize	Select	Break down
Contrast	Outline	Separate	Discriminate
Divide	Debate	Point out	

### Create

Compose	Draw	Plan	Modify
Design	Arrange	Compile	Assemble
Propose	Suppose	Revise	Prepare
Combine	Formulate	Write	Generate
Construct	Organize	Devise	

## LEVEL 3

### Decide

Judge	Rate	Choose	Conclude
Value	Justify	Assess	Summarize
Predict	Decide	Select	
Evaluate	Measure	Estimate	

### Supportive Evidence

Prove your answer. Support your answer.	Give reasons for your answer.	Explain your answer. Why or why not?	Why do you feel that way?
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# Content Specific Questions

## Costa's Levels of Questioning: Math



### LEVEL 1

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...?

Explain the concept of...

Give me an example of...

Describe in your own words what \_\_\_\_\_ means.

What mathematical concepts does this problem connect to?

Draw a diagram of...

Illustrate how \_\_\_\_\_ works.

### LEVEL 2

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?

What occurs when...?

Does it make sense to...?

Compare and contrast \_\_\_\_\_ to \_\_\_\_\_.

What was important about...?

What prior research/formulas support your conclusions?

How else could you account for...?

Explain how you calculate...

What equation can you write to solve the word problem?

### LEVEL 3

Predict what will happen to \_\_\_\_\_ as \_\_\_\_\_ is changed.

Using a math principle, how can we find...?

Describe the events that might occur if...

Design a scenario for...

Pretend you are...

What would the world be like if...?

How can you tell if your answer is reasonable?

What would happen to \_\_\_\_\_ if \_\_\_\_\_ (variable) were increased/decreased?

How would repeated trials affect your data?

What significance is this formula to the subject you're learning?

What type of evidence is most compelling to you?



## Costa's Levels of Questioning: English

### LEVEL 1

What information is given?

Locate in the story where...

When did the event take place?

Point to the...

List the...

Name the...

Where did...?

What is...?

Who was/were...?

Illustrate the part of the story that...

Make a map of...

What is the origin of the word \_\_\_\_\_?

What events led to \_\_\_\_\_?

### LEVEL 2

What would happen to you if...

Would you have done the same thing as...?

What occurs when...?

Compare and contrast \_\_\_\_\_ to \_\_\_\_\_.

What other ways could \_\_\_\_\_ be interpreted?

What is the main idea of the story (event)?

What information supports your explanation?

What was the message in this piece (event)?

Give me an example of...

Describe in your own words what \_\_\_\_\_ means.

What does \_\_\_\_\_ suggest about \_\_\_\_\_'s character?

What lines of the poem express the poet's feelings about \_\_\_\_\_?

What is the author trying to prove? What evidence does he present?

### LEVEL 3

Design a \_\_\_\_\_ to show...

Predict what will happen to \_\_\_\_\_ as \_\_\_\_\_ is changed.

Write a new ending to the story (event)...

Describe the events that might occur if...

Add something new on your own that was not in the story...

Pretend you are...

What would the world be like if...?

Pretend you are a character in the story. Rewrite the episode from your point of view.

What do you think will happen to \_\_\_\_\_? Why?

What is most compelling to you in this \_\_\_\_\_? Why?

Could this story have really happened? Why or why not?

If you were there, would you...?

How would you solve this problem in your life?

## Costa's Levels of Questioning: Science

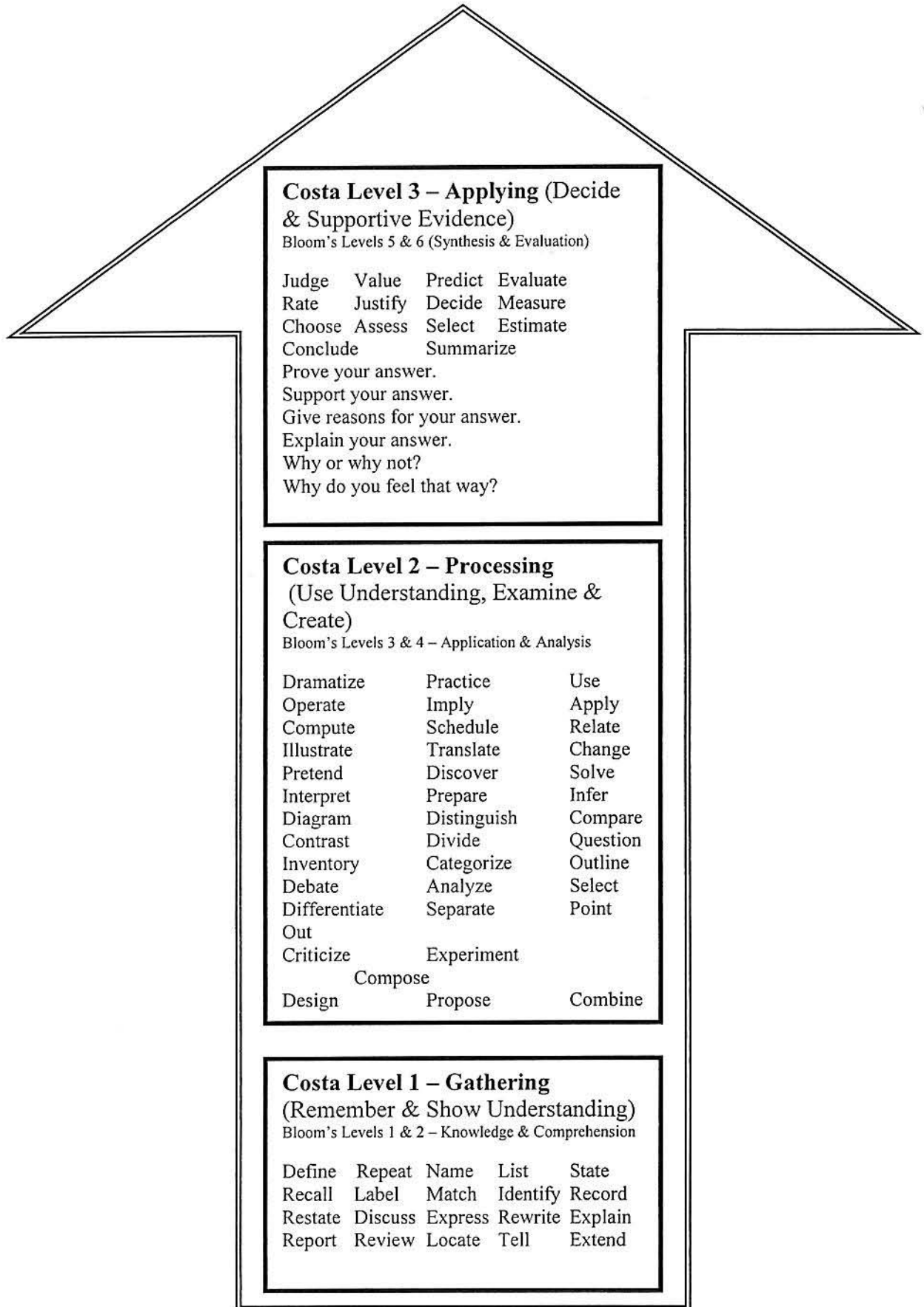
LEVEL 1	LEVEL 2	LEVEL 3
What information is given?	What additional information is needed to solve this problem?	Design a lab to show...
What are you being asked to find?	Can you see other relationships that will help you find this information?	Predict what will happen to _____ as _____ is changed.
What formula would you use in this problem?	How can you put your data in graphic form?	Using a science principle, how can we find...?
What does _____ mean?	How would you change your procedures to get better results?	Describe the events that might occur if...
What is the formula for...?	What method would you use to...?	Design a scenario for...
List the...	Compare and contrast _____ to _____.	Pretend you are...
Name the...	Which errors most affected your results?	What would the world be like if...?
Where did...?	What were some sources of variability?	What would happen to _____ if _____ (variable) were increased/decreased?
What is...?	How do your conclusions support your hypothesis?	How would repeated trials affect your data?
When did...?	What prior research/formulas support your conclusions?	What significance is this experiment to the subject you're learning?
Describe in your own words what _____ means.	How else could you account for...?	What type of evidence is most compelling to you?
What science concepts does this problem connect to?	Explain the concept of...	Do you feel _____ (experiment) is ethical?
Draw a diagram of...	Give me an example of...	Are your results biased?
Illustrate how _____ works.		



## Costa's Levels of Questioning: Science

LEVEL 1	LEVEL 2	LEVEL 3
What information is given?	What additional information is needed to solve this problem?	Design a lab to show...
What are you being asked to find?	Can you see other relationships that will help you find this information?	Predict what will happen to _____ as _____ is changed.
What formula would you use in this problem?	How can you put your data in graphic form?	Using a science principle, how can we find...?
What does _____ mean?	How would you change your procedures to get better results?	Describe the events that might occur if...
What is the formula for...?	What method would you use to...?	Design a scenario for...
List the...	Compare and contrast _____ to _____.	Pretend you are...
Name the...	Which errors most affected your results?	What would the world be like if...?
Where did...?	What were some sources of variability?	What would happen to _____ if _____ (variable) were increased/decreased?
What is...?	How do your conclusions support your hypothesis?	How would repeated trials affect your data?
When did...?	What prior research/formulas support your conclusions?	What significance is this experiment to the subject you're learning?
Describe in your own words what _____ means.	How else could you account for...?	What type of evidence is most compelling to you?
What science concepts does this problem connect to?	Explain the concept of...	Do you feel _____ (experiment) is ethical?
Draw a diagram of...	Give me an example of...	Are your results biased?
Illustrate how _____ works.		

# Costa's Level of Thinking and Questioning



*Student Handout Answer Key*

Name: \_\_\_\_\_

## Costa's Model of Intellectual Functioning in Three Levels Grid

Subject	Level 1	Level 2	Level 3
English	In the book <i>The House on Mango Street</i> , what type of neighborhood does Esperanza live in?	Can you compare and contrast Esperanza's character traits to those of another character in a different book?	Can you predict what will happen to Esperanza as she grows up? How will moving away from Mango St. change her perspective about life?
Math	Can you solve for $x$ in the equation $2x + 5 = 10$ ?	1. Can you compare and contrast these problems? $-1/3(-25x + 10) = 19$ and $2/3p - 2 = 10$ ? 2. How do you express $3y + 4 = 2x$ in standard form and graph the solution?	You want to design a rectangular dance floor 90 feet long and 75 feet wide. You need to make a drawing with a scale of 1 inch equaling 9 feet. Can you fit the drawing on a piece of paper 8.5 inches by 11 inches? Justify your answer.
History	Who was the first president of the United States? In what years did he serve?	Did the first president desire to be the president? Why or why not? Why did he decide to serve upon election?	If he had not been the first president, would there be the same precedents that we follow today (i.e., a two-term limit, a president's cabinet)? Are these models advantageous?
Science	What is a gene? What is a chromosome?	Can you compare and contrast genes and chromosomes?	Can you predict the traits of a child based on what you know about genes and chromosomes? What predictions could you make?
Spanish	Can you conjugate the Spanish verb "ser" in the present tense?	What are the differences and similarities between the preterit and past tenses in the Spanish language?	Can you invent a new Spanish regular "ar" ending verb? Try to use it in six sentences using different tenses.

## Bloom's Levels of Questioning: Science and Math

### 1. KNOWLEDGE—recalling information

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...?  
 Who was/were...?  
 When did ... ?

### 2. COMPREHENSION—understanding meaning

What are you being asked to find?  
 Explain the concept of...  
 Give me an example of...  
 Describe in your own words what \_\_\_\_\_ means.  
 What (science or math) concepts does this problem connect to?  
 Draw a diagram of...  
 Illustrate how \_\_\_\_\_ works.  
 Explain how you calculate...

### 3. APPLICATION—using learning in new situations

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?  
 What occurs when ... ?  
 How would you change your procedures to get better results?  
 What method would you use to...  
 Does it make sense to...?

### 4. ANALYSIS—ability to see parts and relationships

Compare and contrast \_\_\_\_\_ to \_\_\_\_\_.  
 What was important about...  
 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...?

### 5. SYNTHESIS—parts of information to create new whole

Design a lab to show...  
 Predict what will happen to \_\_\_\_\_ as \_\_\_\_\_ is changed.  
 Using a principle of (science or math), how can we find ...?  
 Describe the events that might occur if...  
 Design a scenario for...  
 Pretend you are...  
 What would the world be like if ... ?

### 6. EVALUATION—judgment based on criteria

How can you tell if your answer is reasonable?  
 What would happen to \_\_\_\_\_ if \_\_\_\_\_ (variable) were increased/decreased?  
 How would repeated trials affect your data?  
 What significance is this experiment/formula 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?



# Tutorial Request Form



Name: \_\_\_\_\_

Grade: \_\_\_\_\_ /25= \_\_\_\_\_

Date: \_\_\_\_\_

Tutor's Signature: \_\_\_\_\_

Period: \_\_\_\_\_

Question 1: \_\_\_\_\_ Question Level: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Subject \_\_\_\_\_ Source (page number): \_\_\_\_\_

Question 2: \_\_\_\_\_ Question Level: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Subject \_\_\_\_\_ Source (page number): \_\_\_\_\_

*Circle or highlight the appropriate boxes on the rubric. Mark only one box per category.*

Max. Points	Questions	Resources	Participation	Cornell Notes	Reflection
<b>5</b>	<ul style="list-style-type: none"> <li>2.5 pts for a Level 2 or 3 question</li> </ul>	Student is prepared with textbook, CN from academic classes, materials, etc.	Student keeps discussion on topic at all times. Contributes many ideas/questions.	CN on presenters' questions are complete and contain many details.	Reflection is complete and thoughtful and identifies what was learned, how it was made clearer, and who helped the student.
<b>3</b>	<ul style="list-style-type: none"> <li>1.5 pts for a Level 1 question</li> </ul>	Student may be missing some resources such as textbook, CN from academic classes, etc.	Student occasionally distracts others from focusing on tutorial. Contributes few ideas/questions.	CN on presenters' questions are complete.	Reflection is basic and may identify what was learned, how it was made clearer, and who helped the student.
<b>0</b>	<ul style="list-style-type: none"> <li>no question</li> </ul>	Student is not prepared with textbook, CN from academic classes, materials etc.	Student frequently distracts others from focusing on tutorials. Does not contribute or participate.	Notes on presenters' questions are not in CN form or are limited.	Reflection is incomplete or missing.

Reflection: Describe what you learned or what you understood more clearly through today's tutorial session. Be sure to explain your participation level. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_





Week of: \_\_\_\_\_ through \_\_\_\_\_

Weekly Goals: \_\_\_\_\_

	7th	6th	5th	4th	3rd	2nd	1st
Monday							
Tuesday							
Wednesday							
Thursday							
Friday							

Parent Review: \_\_\_\_\_

# Binder Contents

## Needed Binder Contents

- Good quality, 3-ring binder, 2" or 3" rings with pocket inserts
- Five to six colored dividers with tabs to separate each academic class including AVID
- Zipper pouch to store supplies (3-hole punched heavy duty zip-lock bags also work)
- Two or more pens
- Two or more sharpened pencils
- Filler paper (some notebook paper is now available in Cornell note style)
- Assignment calendar for each academic class
- Tutorial logs
- Learning logs
- Cornell note paper
- Erasers
- Highlighters

## Suggested Binder Contents

- One or two trapper pouches (for paper without holes)
- One or more colored highlighter pens
- Notebook dictionary and/or thesaurus
- Calculator
- Six-inch ruler
- Tips on note-taking and test-taking skills, tutorial guidelines, and other AVID strategy sheets
- Sample of note-taking in specific subjects

*Student binder should be organized in the following manner:*

1. Plastic supply holder
2. Binder grading sheet

*Each subsequent section in the binder should have these parts in this order:*

- A. Divider (labeled by subject name)
- B. Calendar/assignment log
- C. Current Cornell notes
- D. Learning logs
- E. Handouts
- F. Tests
- G. Older notes and learning logs
- H. Blank paper

