



Dea Conrad-Curry
Partner in Education

Visit my website: www.partnerinedu.com

Read my blog: www.dconrad3.wordpress.com

7 Methods for Differentiating Instruction

TEACHING WITH THE BRAIN IN MIND



10%

- Prepare your learners
- Create optimal environment

80%

- Engage learners emotionally
- Frame learning for relevance
- Make time to acquire knowledge, skills, values & experiences
- Provide time for trial and error
- Share feedback--expect active processing
- Connect learning other content and self

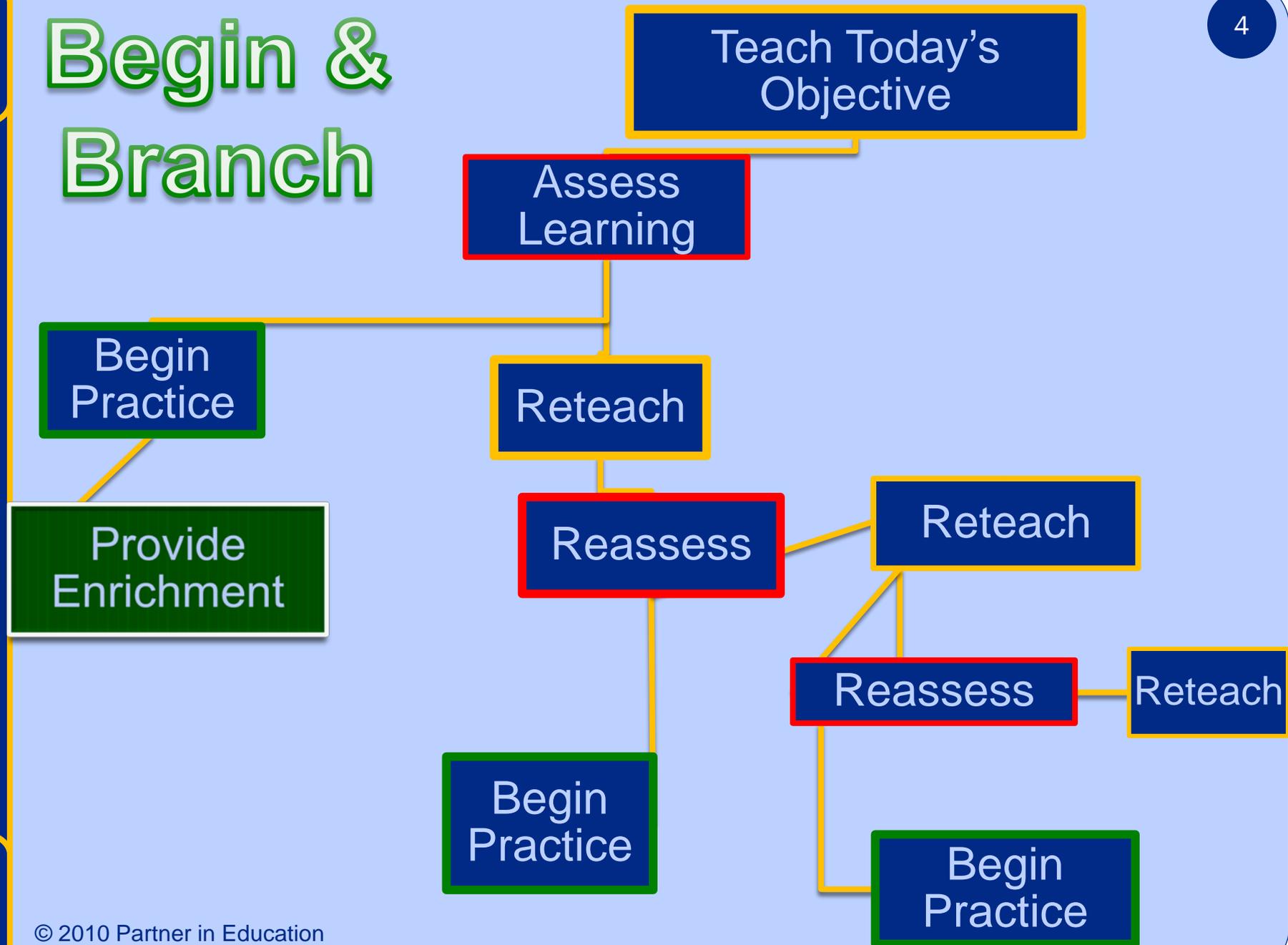
10%

- Settle learning time with reflective processing
- Rehearse & incorporate through revision of learning and using it!

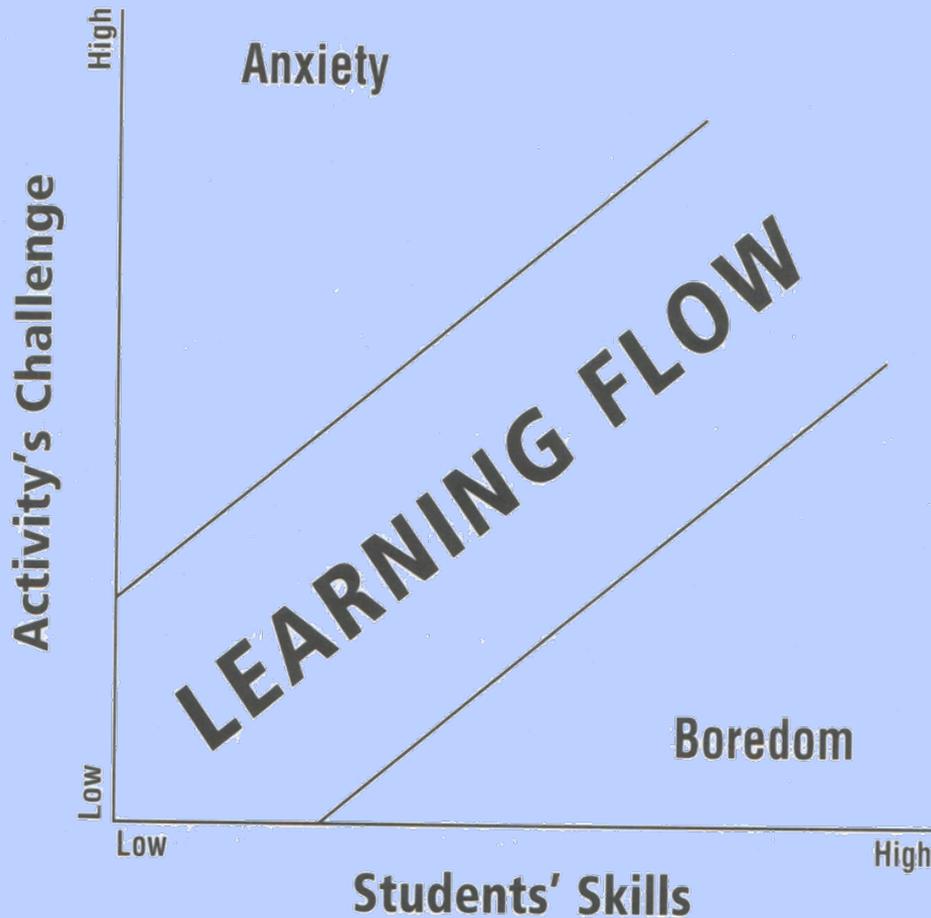
Instructional Choices for Differentiation

- Differentiate the process / activities
 - Contract Grading
 - Vary the texts, experiments, methods (manipulatives)
 - Provide varied student organizers
 - Flexible Groupings
- Differentiate the product / outcome or assessment
 - Contract Grading
 - Allow student choice or design
- Differentiate the content / topic & materials
 - Use leveled reading texts
 - Indicate important text sections: advance preparation of texts
 - In studying a single concept, provide authentic texts at varying levels as appropriate for individual students or student groups
- Differentiate the environment
 - Use intentional processes for grouping students
 - Identify areas in the room for various activities
 - Allow students to work in other parts of the building

Begin & Branch



The Key: Balance Challenge, Interest, & Skill



“Being completely involved in an activity for its own sake. The ego falls away. Time flies. Every action, movement, and thought follows inevitably from the previous one, like playing jazz. Your whole being is involved, and your using your skills to the utmost” (Geirland 1986).

Contract Grading

- Clearly defined contract goals
 - Tied to academic standards & outcomes
- Heterogeneous groups
 - Social skills
 - Think for yourself
 - Respect others' opinions
 - Carry your weight
 - Explore others' points-of-view
 - Help one another stay on task
 - Include all members
- Clearly defined roles for each group member
 - Recorder
 - Materials Manager
 - Quality Control
 - Summarizer
 - Artist / Layout director
 - Researcher
 - Questioner
 - Personnel Director
- Sufficient time allotted for quality outcomes
- Review / negotiate rubric in advance

Tiered Assignments

- **Select the learning outcome or objective for the lesson: the skill or concepts to be learned**
- **Decide on an assessment to evaluate eventual mastery**
- **Develop a corresponding activity to teach the skill, concept, or generalization**
- **Pre-assess students to determine group membership**
- **Review the activity to ensure it both scaffolds and challenges at three levels: above grade level, on grade level, below grade level**
- **Teach prerequisite skills**
- **Provide materials and time for practice**

Example: Tiered Assignment

Section I: Maximum Points 50

5 point opportunities

- ✓ Write down & draw 5 examples of percentages
- ✓ Figure percentage of boys & girls in class
- ✓ Complete vocabulary organizers for definitions of ratio and proportion
- ✓ Complete 2 problems from section pp.???

10 point opportunities

- ✓ Bring in a round edible object & demonstrate 5 different percentages.
- ✓ Pick 3 different percentages. Draw each one three different ways

Section II: Choose one 20 points

- ✓ Find the percentage of each color in a bag of skittles; make a chart, diagram or poster
- ✓ What part of a banana is edible? Write a formula based upon the mean of your data to show the amount of the edible portion.
- ✓ Determine the amount of an ingredient listed on a nutritional label in grams for 10 different canned foods. Present your information in the form of a book using the labels as illustrations

Section III: Choose one 20 points

- ✓ Interview a coach asking how percentages are important in their sport. Write a-half to one page summary of your findings.
- ✓ Research and determine the percentage of food thrown away by people in the United States. Write a-half to one page summary of your findings.

Effects of Incidental & Intentional Instruction on Vocabulary Growth

- **Incidental Learning**

- 5 - 15% of novel vocabulary can be learned
- Requires 7 or so encounters
 - ✓ Students must read independently to encounter new words
 - ✓ Students must have inferential skills to determine meaning
- Time spent reading directly affects vocabulary acquisition

- **Intentional Instruction**

- Foster work consciousness beyond students' areas of interest
 - ✓ Topical: Content words
 - ✓ World: Words educated people **should** know
- Teach individual words
 - ✓ Make a goal of 350 words annually
- Teach strategies for learning new words
 - ✓ Context clues: 20% reliable

Vocabulary Acquisition

- Stages of word knowledge (Dale 1965)
 - ✓ Never saw it before
 - ✓ Heard it—no knowledge of meaning
 - ✓ Recognizes in context
 - ✓ Knows it well: uses in conversation and or writing

How Well Do I Know These Words?

Thinking about words before learning them makes connections that will help me remember.

Word	Never Heard	Heard or Seen	Connotation	I can define this word	I use this word!
periphery					
noxious					
precocious					
decorum					
nefarious					
erudition					
caveat					

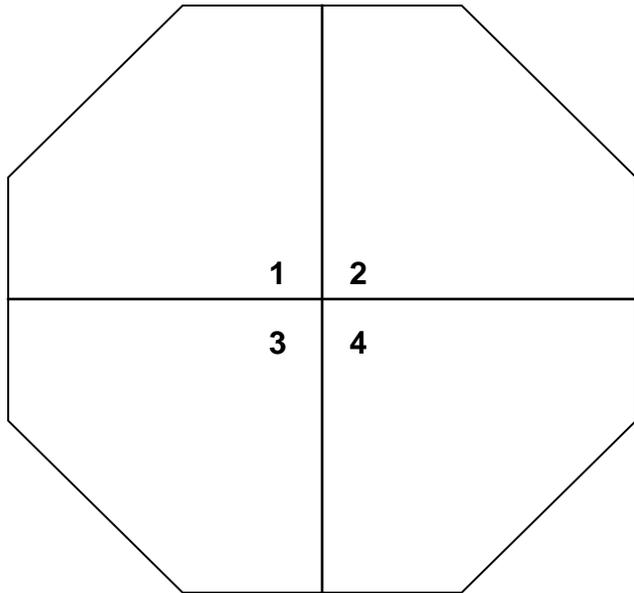
	Use the word	Know the word	Heard the word	Never heard
Term _____	4	3	2	1
Description or working definition _____ _____ _____	Initial understanding			
	In how many ways can I use this word?			
	1.	_____		
	2.	_____		
	3.	_____		
My Connection				
Visualization				
	Later understanding	4	3	2 1

	Use the word	Know the word	Heard the word	Never heard
Term _____	4	3	2	1
Description or working definition _____ _____ _____	Initial understanding			
	In how many ways can I use this word?			
	1.	_____		
	2.	_____		
	3.	_____		
My Connection				
Visualization				
	Later understanding	4	3	2 1

Fast Mapping (Carey 1978)

- Quick method to acquire a sense of meaning
 - ✓ Based on the theory of mutual exclusivity
- Extended mapping for more definitive understanding
 - ✓ Occurs over time
 - ✓ Requires extended encounters

Differentiating Vocabulary Assessment

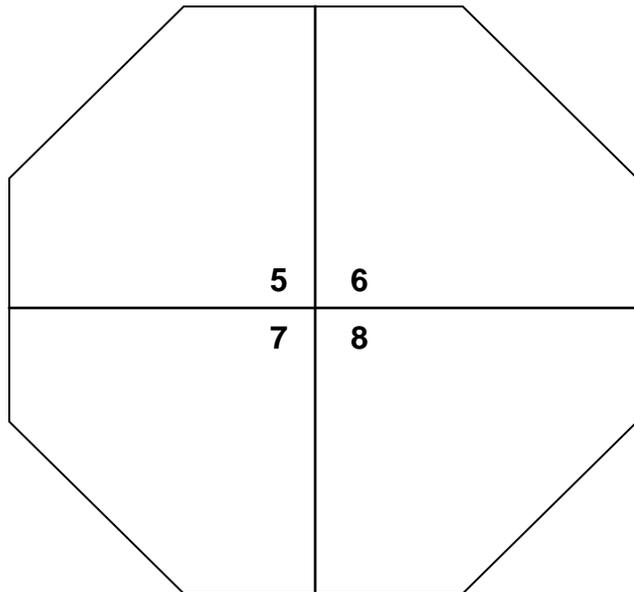


1 ↔ 2

2 ↔ 3

3 ↔ 4

4 ↔ 1



Directions for words 5 – 8: Write a meaningful statement or series of statement using three of the four words. Bonus opportunity for using all words.

VOCABULARY MATRIX

List vocab words across & down	erudition	caveat	intentional	decorum	connotation
periphery					
noxious					
precocious					
incidental					
nefarious					

PARALLEL TASKS & NOTE TAKING

- Two or more tasks fundamentally the same and deal with the same big idea
- But they meant for students at different levels of readiness.
- Students choose which task to complete, but a common set of questions is used for both (or all) tasks.

Guided Notes

- **Teacher prepared handouts guiding students through reading or lecture**
- **Provides standard cues and prepared space**
- **Omit**
 - **key facts, concepts, and/or relationships** (Heward, 1996)
- **A outline skeleton where students actively respond during whole class lecture or reading**
- **A columnar form where key terms or phrases, definitions, etc. are provided dedicated space for further notation during reading or lecture**

Benefits of Guided Notes

- Because key concepts, facts, and relationships are cued or highlighted, students are better able to determine if they are *getting it*;
- therefore more likely to ask the teacher to repeat or clarify a point of information;
- students produce a standard set of accurate notes for subsequent study and review;
- Outline may be modified or differentiated for student needs;
- especially beneficial for students with learning disabilities & development disabilities (Lazarus, 1991, Sweeney et al, 1999)

Summarizing: Reading Strategy

Note taking: Supporting Skill

- **Effective summarizing increases student learning**
 - Text structure helps summarize
 - Effective summarization requires synthesis
 - includes analyzing information
 - identifying key concepts
 - defining the purpose of extraneous information

- **Note taking supports student learning**
 - students need explicit instruction in note taking
 - without instruction, many students write down meaningless words or phrases or copy word for word
 - successful note-takers summarize which supports retention
 - notes benefit students as a document of learning
 - refinement & review of notes provides repetition w/ content

The Rule Strategy

- **Keep or create a topic sentence**
 - May or may not be the first sentence
 - May be at the end of the paragraph or in the middle
 - If there is no topic sentence, create one
- **Delete unnecessary words or sentences**
 - conjunctions, prepositions, personal references, interruptions by the author w/opinion or examples, superfluous descriptors
- **Combine repeated and/or similar words as one reference**
 - Substitute words
 - For unfamiliar concepts: vast stretches—large area
 - To categorize: axes, mauls, and hammers are tools
- **Examine transitions and text structure**
 - To verify topic sentence
 - To fully understand and retain the author's purpose

The Chinese and the Transcontinental Railroad

- **Keep but edit topic sentence (if there is one)**
- **Delete the unnecessary**
 - Conjunctions, Prepositions
 - Personal references or interjections (opinion, anecdote)
 - Superfluous descriptors
- **Combine repeated and or similar words**
 - Limit to one reference

The Chinese, or Celestials (from the Celestial Empire), as they were often called in the 1800s, have a long history in Western America. Chinese records indicate that Buddhist priests traveled down the west coast from present day British Columbia to Baja California in 450 A.D. Spanish records show that there were Chinese ship builders in lower California between 1541 and 1746. When the first Anglo-Americans arrived in Los Angeles, they found Chinese shopkeepers.

Finding the Main Idea and Summarizing Text

Paragraph #

Circle Strategies Used: Deleted Unimportant Words, Combined Repeated Words, Substituted Unfamiliar Words, Found or Created a Topic Sentences, Examined transitions & text structure

Main Idea _____

Paragraph #

Circle Strategies Used: Deleted Unimportant Words, Combined Repeated Words, Substituted Unfamiliar Words, Found or Created a Topic Sentences, Examined transitions, & text structure

Main Idea _____

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Main Idea _____

Summary

Connections & Inferences

Pair Reading & Note taking

■ Prelistening

- Debug text with partner

■ 1st listening

- Tick off or check each word as you hear it read
- Keep track of how many times the word is repeated

■ 2nd listening

- Annotate the list
- Add more details

□ Retelling

- After listening and annotating, use your checklist to retell the information
- Then, let your partner use his/her list to retell it to you

Differentiating for Multiple Modalities

Step 1: Pre-listening task

Before you listen to the talk, sit with a partner and decide who is partner A and who is partner B. **Then use *Pair Sharing*** to explore the meaning of each word or phrase as follows:

- ✓ *A reads a line on the list*
- ✓ *B asks, "What does that mean?"*
- ✓ *A explains with the option to continue discussion*
- ✓ *B reads the next line on the list*
- ✓ *A asks, "What does that mean?"*
- ✓ *B explains with the option to continue discussion.*

Step 2: During listening task

Tick off words as you hear them read

- Earthworms* _____
- Segments* _____
- Tube* _____
- Organs* _____
- Waste Products* _____
- Bristles* _____
- Flap* _____
- Digestive system* _____
- Reproductive* _____
- Cocoon* _____

• Step 3: Rereading task

With your partner, take notes over important ideas

- **Step 4:** *Use annotations to retell or write a summary of the nonfiction text*

CORNELL NOTES

Cornell Notes (Intro)

Name	Date
Topic	Class/ Subject

Here, in the Connections Column, you might write one or more of the following:

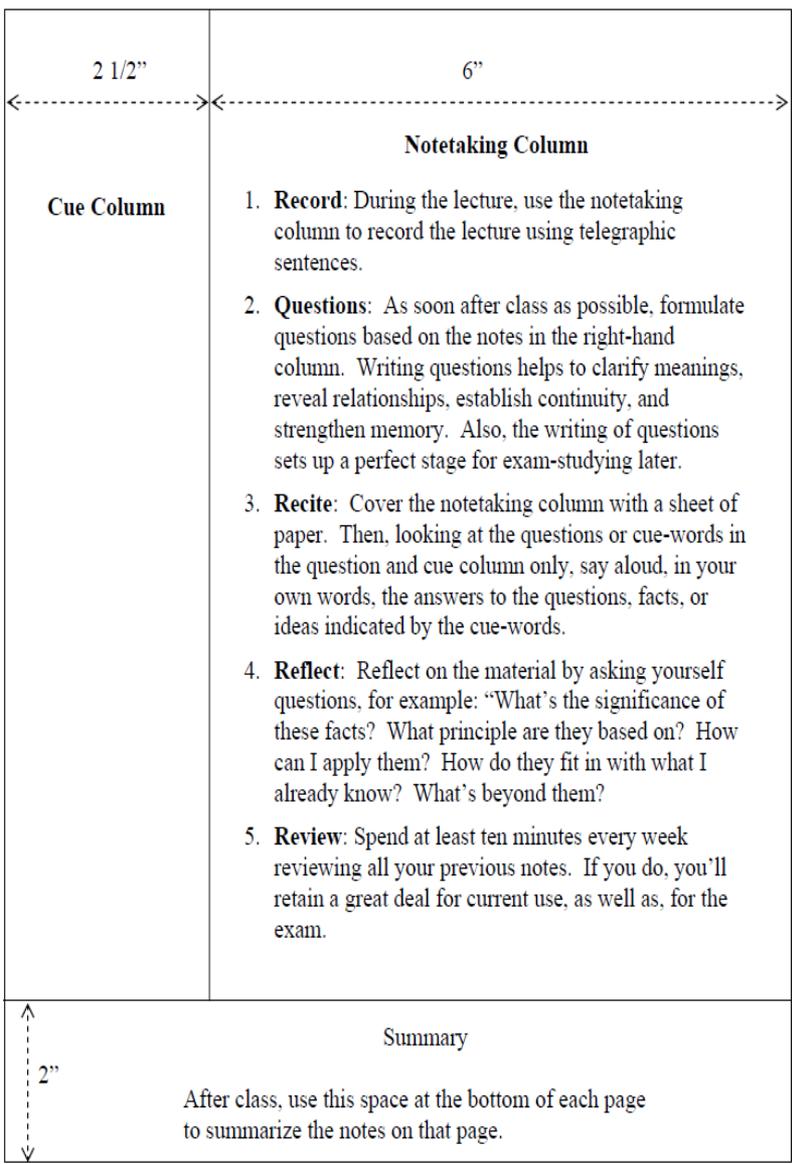
- Categories
 - Causes of WW II
 - Parts of a Cell
- Questions
 - What caused WW II?
 - What are the parts of a cell?
- Vocabulary words
 - Holocaust
 - synthesis
- Review/test alerts!
 - WW II causes and names of allies will definitely be on exam!
 - Parts of a Cell
- Connections
 - check the Owens poem for his comments on war
 - similar to process we studied in last unit
- Reminders
 - Be sure to check the meaning of variant.

Sample Question and Notes
What should I write down when I take notes?

Note: Leave space in the Connections Column so you can add notes and test review questions later on when studying

How can I take notes faster?

Down here write one of the following; summary of what you read/lecture; the five most important points of the article/chapter/lecture; questions you still need to answer.



References

- Blackwell, Ann J. & McLaughlin, T.F. (2005). Using guided notes, choral responding, and response cards to increase student performance. *The International Journal of Special Education*, 20 (2).
- Carter, Rita. (1998). *Mapping the Mind*. Los Angeles: U of California P.
- Ford, Michael. (2005). Differentiation through Flexible Grouping: Successfully Reaching All Readers. Retrieved March 8, 2009 from <http://www.learningpt.org/pdfs/literacy/flexibleGrouping.pdf>.
- Graves, Michael F. *The Vocabulary Book: Learning & Instruction*. (2006). New York: NCTE
- Jensen, Eric. (1998 & 2005). *Teaching with the Brain in Mind*. Alexandria, VA: ASCD
- Marzano, Robert J., Pickering, Debra J. & Pollock, Jane E. (2001). *Classroom Instruction that Works*. New Jersey: Pearson.
- Pressley, Michael. (2006). *Reading Instruction that Works*. New York: Gilford.
- Robb, Laura. (2000). *Teaching Reading in the Middle School*. New York: Scholastic.
- Tomlinson, Carol Anne. (ND). Grading and differentiation: Paradox or good practice? *Theory into Practice*, 44(3). 265-269.
- Tomlinson, Carol Ann. (2001). *How to Differentiate in Mixed-Ability Classrooms*. Alexandria, VA: ASCD.
- Tomlinson, Carol Ann & Eidson, Caroline Cunningham. (2003). *Differentiation in Practice: Grades K – 5*. Alexandria, VA: ASCD.
- Tomlinson, Carol Ann & McTighe, Jay. (2006). *Integrating Differentiated Instruction & Understanding by Design*. Alexandria, VA: ASCD.
- Torgesen, Joseph K. (Fall 2004). Preventing early reading failure. *The American Educator*. Retrieved July 5, 2007 from http://www.aft.org/pubs-reports/american_educator/issues/fall04/reading.htm
- Wiggins, Grant & McTighe, Jay. (2005). *Understanding by Design*. Alexandria, VA: ASCD.