

# *Alpha Boxes*

## *Word Smart*

*Useful for Organizing and stretching their thinking  
(creating new links).*

## *Example*

A	B	C	D	E
F	G	H	I	J
K	L	M	N	O
P	Q	R	S	T
U	V	W	X	Y&Z

## *Instructions:*

*Students should use the ABC chart and complete at least 20 boxes.  
Younger students can write a single word in each box, while older  
students should use complete sentences and identify the key term.*

# *Anchor Activities*

*Useful for meeting student's special needs and preferences*

*Example*

*Journaling*

*Selected Reading*

*Kinesthetic Puzzles*

*Sketching*

*Instructions:*

*Anchor activities are meaningful activities that a student can carry out silently and independently if they finish their other assigned tasks early.*



# Anticipatory Guide

*Useful for assessing student growth.*

*Example*

Before	Statement	After
T F		T F
T F		T F
T F		T F
T F		T F
T F		T F
T F		T F
T F		T F
T F		T F
T F		T F
T F		T F

Concluding Question:

*Instructions:*

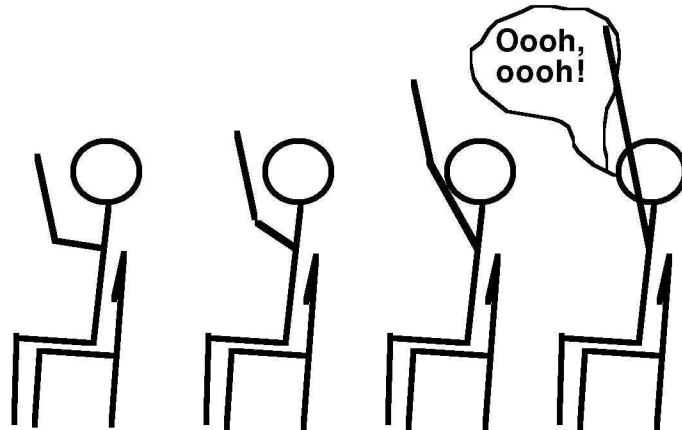
*Using a form similar to that shown above, each student is invited to classify each of the statements in the middle PRIOR to participating in an activity (video, reading, performance, etc.).*

*Then each student is invited to classify the same statements AFTER the activity. A short reflection on any differences (before v. after) concludes the guide.*

# *Arm Gauge*

*Useful for informal assessment*

*Example*



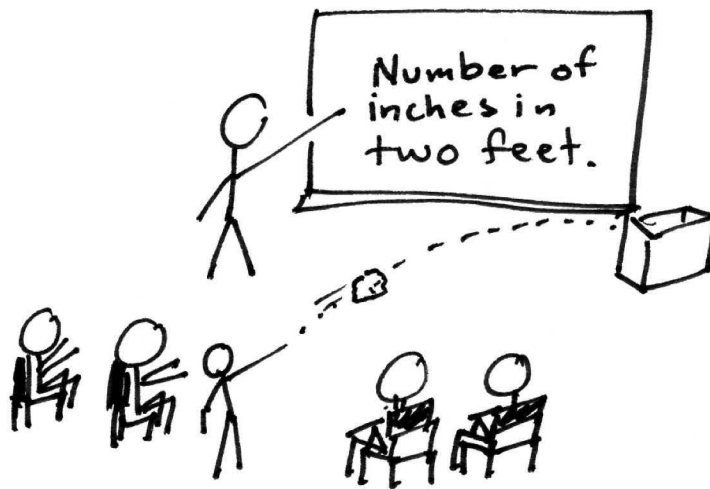
*Instructions:*

*Students hold a hand higher or lower based on what he or she believes is the level of understanding (or agreement). Barely raised means low understanding/agreement, while an arm straight up would be high understanding/agreement.*

## *Ask-It-Ball*

*Useful for review, or for pre-assessment. Can be used to appeal to kinesthetic learners as well as to raise expectations for performance by students who feel that they are better athletes than they are intellectuals.*

### *Example*



### *Instructions:*

*Class is divided into groups, and teacher poses one question to a member of one of the groups. If that member answers the question correctly, they get one point and a chance to shoot a paper-wad basketball at a trash can. If they sink the basket, then that team gets a bonus point, and the next group is given a chance to answer a question and shoot a basket. At the end, the team with the highest number of points is given a "reward".*

# *Assessment*

*Useful for planning lessons that meet student needs, guiding instruction, or evaluating (rating) student performance.*

## *Example*

### Informal:

Arm Gauge  
Fist of Five  
Face the Fact  
Speech Bubbles  
Thumbing

### Formal

Pre-Testing (Whole Gamut)  
Post-Testing

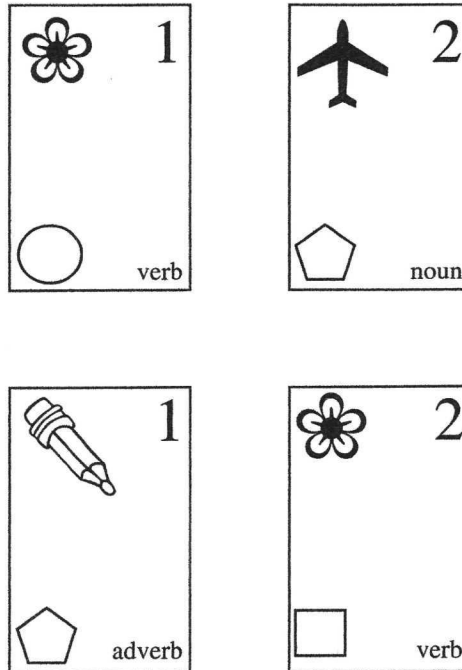
## *Instructions:*

*Assessment is a key to differentiation. Assessment tasks provide tangible evidence of student growth and understanding throughout the learning process (before, during, and after).*

# Attribute Cards

*Useful for grouping students.*

*Example*



*Instructions:*

*Students select one attribute card from a collection of cards.*

*After each student has a card, the teacher calls out an attribute (shape, color, number, etc.) from the card.*

*The teacher can tailor the size of the group by selecting the attribute that has the desired number of attribute differences.*

# **BRAIN**

Reprinted from *Differentiated Instructional Strategies: One Size Doesn't Fit All* by Gayle H. Gregory and Carolyn Chapman. Thousand Oaks, CA: Corwin Press, © 2002. [www.corwinpress.com](http://www.corwinpress.com)

*Useful for helping to plan lessons with differentiated instruction.*

*Example*

## **B**

### **uilding safe environments**

- Do students feel safe to risk and experiment with ideas?
- Do students feel included in the class and supported by others?
- Are tasks challenging enough without undo or “dis” stress?
- Is there an emotional “hook” for the learners?
- Are there novel, unique and engaging activities to capture and sustain attention?
- Are “unique brains” honored and provided for? (learning styles & multiple intelligences)

## **R**

### **ecognizing and honoring diversity**

- Does the learning experience appeal to the learners' varied and multiple intelligences and learning styles?
- May the students work collaboratively and independently?
- May they ‘show what they know’ in a variety of ways?
- Does the cultural background of the learners influence instruction?

## **A**

### **ssessment**

- Are pre-assessments given to determine readiness?
- Is there enough time to explore, understand and transfer the learning to long- term memory (grow dendrites)? Is there time to accomplish mastery?
- Do they have opportunities for ongoing, “just in time” feedback?
- Do they have time to revisit ideas and concepts to connect or extend them?
- Is metacognitive time built into the learning process?
- Do students use logs and journals for reflection and goal setting?

## **I**

### **nstructional Strategies**

- Are the expectations clearly stated and understood by the learner?
- Will the learning be relevant and useful to the learner?
- Does the learning build on past experience or create a new experience?
- Does the learning relate to their real world?
- Are strategies developmentally appropriate and hands on?
- Are the strategies varied to engage and sustain attention?
- Are there opportunities for projects, creativity, problems and challenges?

## **N**

### **umerous Curriculum Approaches**

- Do students work alone, in pairs and in small groups?
- Do students work in learning centers based on interest, need or choice?
- Are some activities adjusted to provide appropriate levels of challenge?
- Is pre-testing used to allow for compacting/enrichment?
- Are problems, inquires and contracts considered?

*Instructions:*

*BRAIN is a mnemonic to assist in planning lessons that meet the many learning preferences of the students in a class.*

# ***Brainstorming***

*Useful for pre-testing, post-testing, reviewing, and engagement.*

## *Example*

*List as many reasons as you can why funerals didn't happen during the period of time known as Fever 1793.*

- people didn't know how the fever was contracted.*
- The funeral directors were dead*
- The funeral directors fled fearing they might soon be dead*
- No one left alive in the family to attend*
- No room left in that town's cemetery*

## *Instructions:*

*The teacher poses a question and students respond (either individually or in groups).*

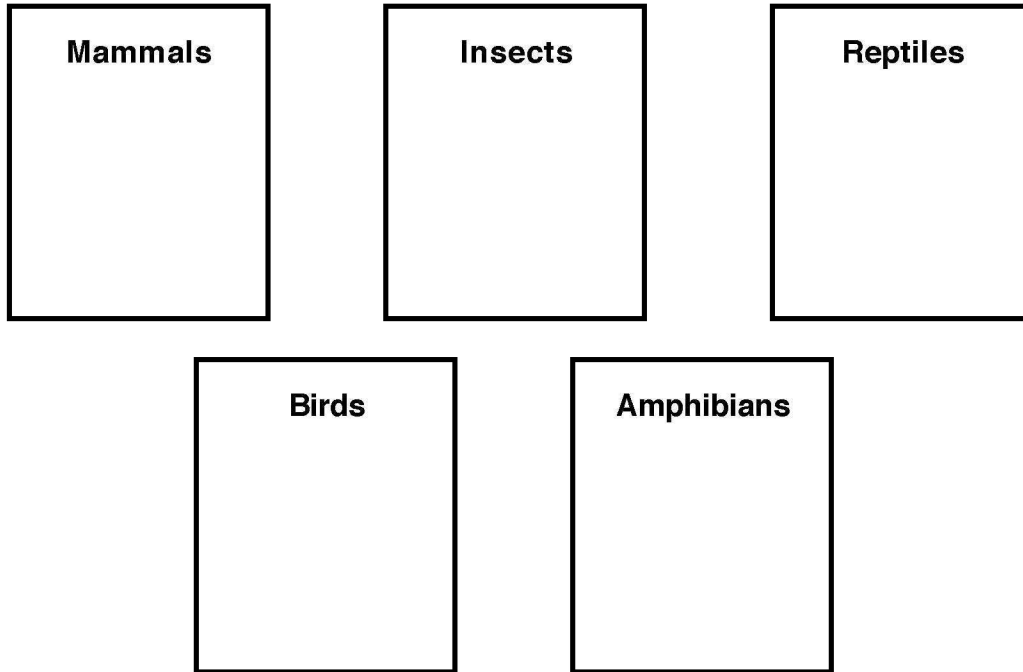
*This is a good activity to engage students. The key to the activity is in accepting answers whether they initially sound crazy or not. To assist in this, students can be advised of DOVE before starting.*

# ***Carousel Brainstorming***

*Useful for pre-assessment or for review.*

*Assists in finding holes and misconceptions.*

*Example*



*Instructions:*

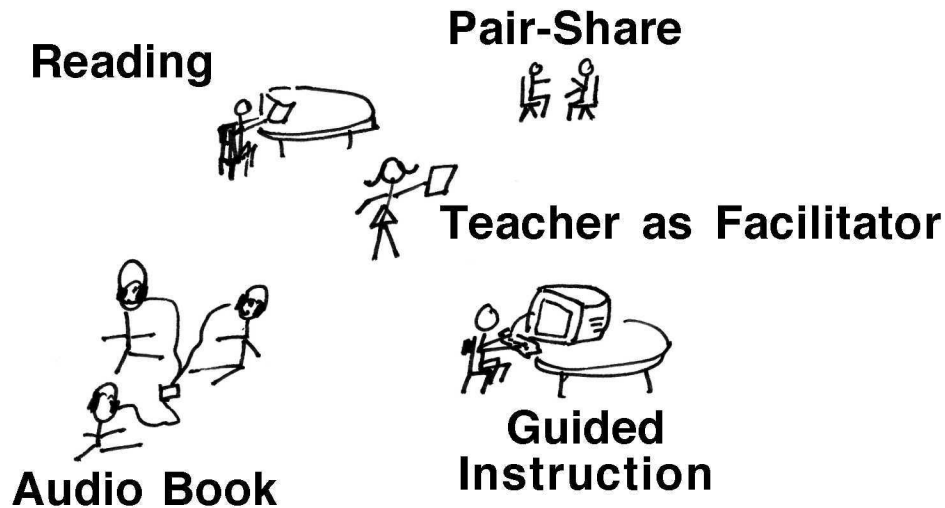
- 1. Put up (set out) large poster papers in different parts of the room and label each poster with a different heading.*
- 2. Divide students into groups (one group for each poster).*
- 3. Go over DOVE rules.*
- 4. Set a timer for a short span (2-5 minutes)*
- 5. Have each group work on writing what they can on the poster they were assigned until the timer “dings”.*
- 6. Have the groups shift to another poster (hence the name carousel brainstorming).*
- 7. Reset the timer and have each group work on writing what they can on the poster they were assigned until the timer “dings”.*
- 8. Repeat until all posters have been addressed, and then share the results.*



# Centers

*Useful for differentiation (to meet learning styles or interests).  
Also can be used for formal or informal assessment.*

*Example*



*Instructions:*

*Centers may be developed for any area of the curriculum. The teacher provides and organizes each center to meet the needs and engagement preferences while addressing the requirements of the curriculum. Each center may be an assigned task or a choice. While students are involved in each center site, the teacher should move about: putting out fires, facilitating instruction, and/or assessing student performance growth.*

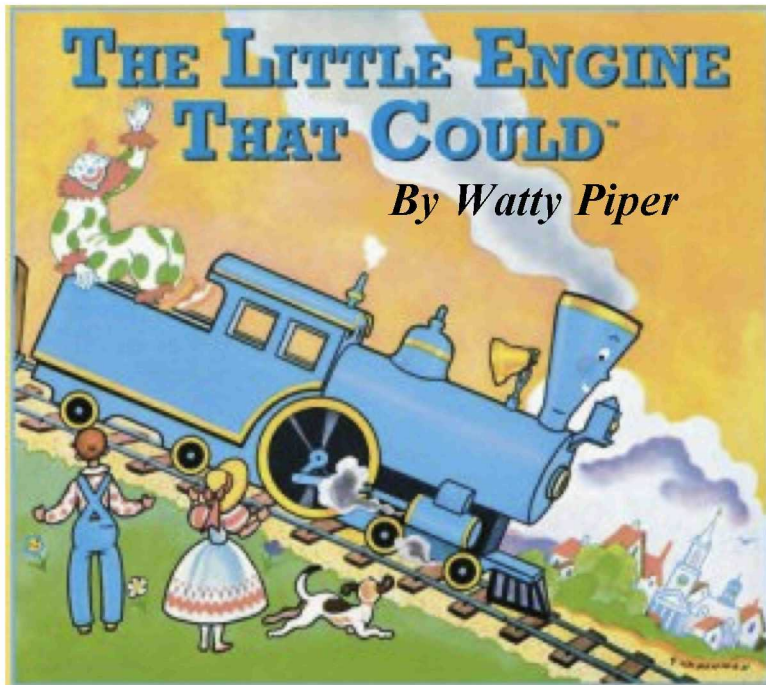
*Key to the effectiveness of centers is that each one address a particular aspect of the curriculum (as opposed to being just something fun to do).*

*Centers differ from Stations in that center sites are independent of one another, while each station site represents part of a learning sequence.*

# Chanting

*Useful for differentiating to assist Auditory Learners. Helps with recall. Good for reviewing. Possible creative exercise.*

## Examples



### **Preschool:**

*After reading and discussing the book, model and encourage a chant while doing an activity that a student might find difficult (such as cutting with scissors). Pretend that the scissors are the engine and the lines are the tracks. I think I can, I think I can, I knew I could!*

***High school: In order to memorize common formulas, model for the student examples of statements of the formula that have rhyme or meter to them. For example, a formula to find the weight of an object given its mass could be: "If you know the mass and you want the weight, then you take the mass times nine point eight."***

### ***Instructions:***

*Chanting can be useful in memorizing useful ideas or formulas. However, a much more effective strategy involves getting the students to come up with their own chants (verses, slogans, or sayings). Not only are personally developed chants more engaging, satisfying, and memorable, they can also serve to allow the students to serve as mentors to other students and help with community building.*

# Check Boxing

*Useful for student assessment, peer evaluation, and teacher assessment.*

*Example*

<p><b>Paragraph contains a topic sentence.</b></p> <input type="checkbox"/>	<p><b>Paragraph contains a transition.</b></p> <input type="checkbox"/>
<p><b>Paragraph contains at least 4 supporting details.</b></p> <input type="checkbox"/>	<p><b>Paragraph has a concluding sentence (clincher).</b></p> <input type="checkbox"/>

*Instructions:*

*Using a form similar to that shown above, each student is asked to respond to the statement in each major box. If the student agrees with the statement, then the student puts a plus sign (+) in the left check box (located in the bottom left corner of the major box which holds the statement). If the student disagrees with the statement, then they place an 'o' in that check box. Next another person (teacher, or other student), indicates approval or disapproval of the statement in the major box by placing a '+' or an 'o' in the check box located in the bottom right corner of that statement box. After the entire box is completed, the pair can share and summarize the results in a final statement at the bottom of the sheet.*

## *Choral Reading*

*Useful for reading skills (sight word recognition and oral reading).*

*Example*

### **The Raven.**

Once upon a midnight dreary, while I pondered, weak and  
weary,  
Over many a quaint and curious volume of forgotten lore,  
While I nodded, nearly napping, suddenly there came a  
tapping,  
As of some one gently rapping, rapping at my chamber  
door.  
" 'Tis some visitor," I muttered, "tapping at my cham-  
ber door—

Only this, and nothing more."

Ah, distinctly I remember it was in the bleak December,  
And each separate dying ember wrought its ghost upon  
the floor.  
Eagerly I wished the morrow;—vainly I had tried to bor-  
row  
From my books surcease of sorrow—sorrow for the lost  
Lenore—  
For the rare and radiant maiden whom the angels name  
Lenore—

Nameless here for evermore.

*Instructions:*

*With the aid of a teacher as pace-setter, a group of students reads the same passage of text. The students follow the teachers modeling of pronunciation and tonal variation to gain confidence and ability in reading aloud.*



# **Chunking**

*Useful for memorizing and developing understanding of vocabulary and named skills commonly associated with summative tests.*

## *Examples*

*FBIN BCL CDTVV CRN FL*

*FBI NBC LCD TV VCR NFL*

Fist of Five

Anchor Activities

Centers

Carousel Brainstorming

Face the Fact

Speech Bubbles

Thumbing

Fist of Five

Face the Fact

Speech Bubbles

Thumbing

Anchor Activities

Centers

Carousel Brainstorming

## *Instructions:*

*Especially useful for short term memorizing and organizing (power thinking). Teacher presents a list of terms and models chunking by showing how to break the collection of terms down into subsets (usually less than seven per group). Students are then encouraged to memorize those groupings or to make their own groupings.*

*Chunking is one of several techniques that can be used on a deck of flash cards.*

# Closure (aka Cloze, Completion, or Fill-in the Blank) Activities

Useful for reviewing or assessing familiarity with a: reading, lecture, or activity.

Example

## Part A Completion

Use this completion exercise to check your understanding of the concepts and terms that are introduced in this section. Each blank can be completed with a term, short phrase, or number.

The strength of an acid or base is determined by the 1 1. \_\_\_\_\_  
of the substance in solution. The acid dissociation constant, 2. \_\_\_\_\_  
2, is a quantitative measure of acid strength. A strong acid 3. \_\_\_\_\_  
has a much 3  $K_a$  than a weak acid. The  $K_a$  of an acid is 4. \_\_\_\_\_  
determined from measured 4 values. 5. \_\_\_\_\_

Hydrochloric acid and sulfuric acid are 5 ionized in 6. \_\_\_\_\_  
solution and are 6 acids. Ethanoic acid, which is only about 7. \_\_\_\_\_  
1% ionized, is a 7 acid. Magnesium hydroxide and calcium 8. \_\_\_\_\_  
hydroxide are strong 8. 9. \_\_\_\_\_

Weak bases react with 9 to form hydroxide ion and the 10. \_\_\_\_\_  
conjugate 10 of the base. Concentration in solution does not 11. \_\_\_\_\_  
affect whether an acid or base is 11 or weak.

*Instructions:*

*Students complete a cloze procedure as a summary of the most significant information about a topic. The cloze sample omits the keywords of the topic and requires students to demonstrate their understanding of the topic by correctly filling in each blank.*

## ***Community Building (aka Team Building)***

*Useful for successful DI planning. Community building is one of the essential components of DI.*

### *Example*

*A service club can volunteer regularly to make audio tapes for students who have troubles reading.*

*A local daycare likes to have stories read to some of their younger members, however they don't have a wide variety of stories to choose from. So the advanced english literature class at the local high school has agreed to make short children's stories with artwork created by the art II students. The spanish IV class translates the text and narrates the story for the computer science class who records the sound, scans the artwork and produces video tapes and DVD's of stories. This community of students makes 2 stories each year for the local daycares to use.*

*A local ophthalmology agrees to speak to the science classes about ophthalmology as a career.*

### *Instructions:*

*The underlying principle behind DI is that lessons should address the many learning preferences of the students in the class. However, there are often more needs than can be met by resources available in a classroom. It therefore is useful for the teacher planning differentiated instruction to think outside of the classroom's box and look to other classrooms, other schools, other businesses, and so on. In other words, to build communities that can meet the needs and preferences of the students that walk into the box each day.*

# Compare/Contrast

Useful for assessing student understanding of a topic. Similar to a Venn Diagram.

Example

**Contrast & Compare Chart**

1.	2.	
<b>HOW DIFFERENT?</b>		
1.	With regards to...	2.

<b>HOW SIMILAR?</b>	
With regards to...	1. & 2.

**Conclusion:**

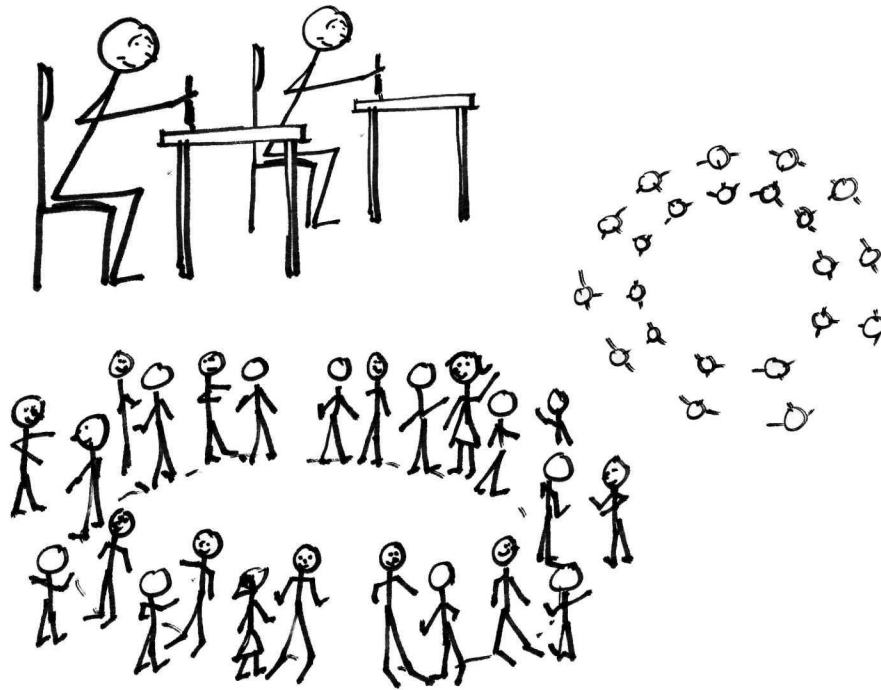
*Instructions: Students work individually or with a partner to find common/different traits of two given items. Students then summarize their results. For additional charts see pp 85-86 of Strategies for Differentiation Instruction. Best Practices for the Classroom. by Julia L. Roberts. See also: This-Is-A-This Game.*



## *Concentric Circles (aka Navel Game or Innies and Outies)*

*Useful for review, as an icebreaker, or pre-assessment.*

*Example*



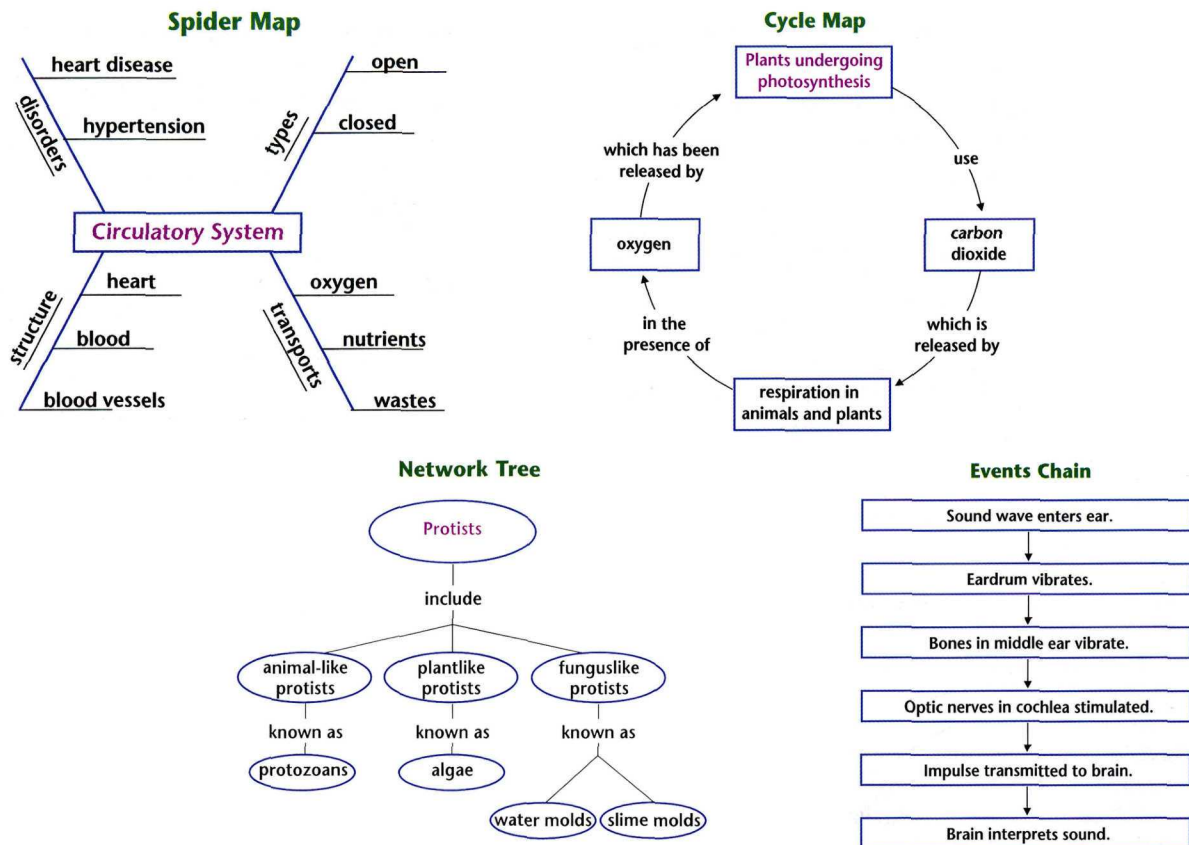
*Instructions:*

- 1. After students have completed a short assignment (such as viewing a video, listening to a tune, reading a selection, or working with manipulatives), have each student write answers to preselected questions, or have each student write a statement that could be discussed.*
- 2. Divide the class into two groups. Have one group stand in a circle (each person standing facing outward).*
- 3. The other group should then form a circle around the first group (each member of this group facing inward toward a member of the inner circle).*
- 4. State the topic that should be discussed, set a timer (1-3 minutes), and have students discuss the topic with the person they face.*
- 5. Direct the members of the outer circle to shift a specific number of places to their left. Then repeat step 4 until all students in the outer circle has shared with each member of the inner circle.*

# Concept Maps (aka Graphic Organizers)

Useful for demonstrating relationships between ideas or concepts. These can provide for increased understanding and lessened misconceptions. Concept maps can also be used as assessment tools.

## Examples



## Instructions:

A concept map is a diagram that visually displays the connections between items. Above are several sample concept maps.

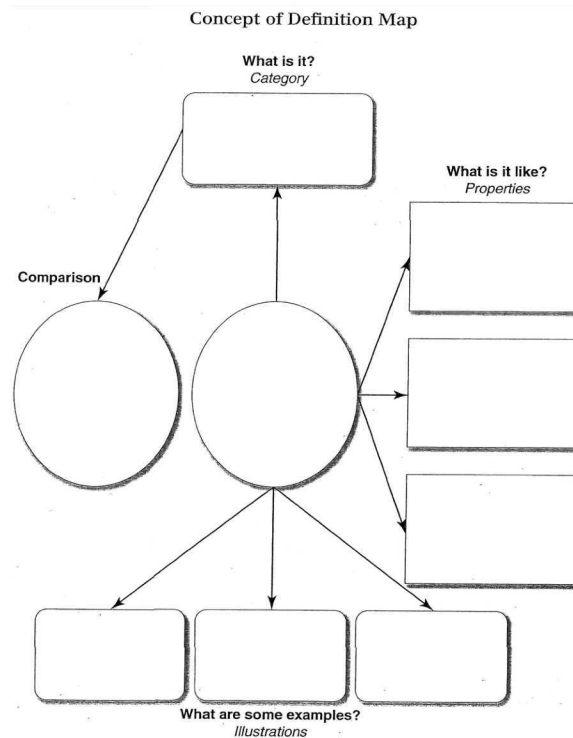
Reading a concept map is one way in which students can develop understandings. In application, a student is asked to fill-in a given map-form with choices designated by the teacher.

However, to make more memorable connections, students should be encouraged to create their own maps. In this case, a student is given a blank sheet of paper and asked to generate what they believe is the most relevant concept map.

# Concept of Definition Map

Useful for developing understanding of a concept.

Example



Instructions:

1. Using a diagram similar to the one shown above, write a concept in the center circle.
2. Next use other parts of the chart to answer:
  - a) What is it?
  - b) What is it like?
  - c) What could it be compared to?
  - d) What are some examples?
3. Then, using those responses as a basis, develop a definition for the concept.

# Contracting

*Useful for monitoring and assessing student progress/performance.*

## *Example*

All parties agree that academic success is the product of a cooperative effort. To insure that _____ will benefit from this union, each party has the following responsibilities: (Student)		
As a student _____, will:	<ol style="list-style-type: none"><li>1. Be respectful to my classmates.</li><li>2. Put my best effort into my school work.</li><li>3. Obey all rules both at home and at school.</li><li>4. Come prepared to school with homework and materials.</li><li>5. Spend at least 15 minutes a day study for each subject.</li></ol>	
As a parent _____, will:	<ol style="list-style-type: none"><li>1. Spend 15 minutes per day reading with my child.</li><li>2. Monitor my child's school work and extracurricular activities.</li><li>3. Maintain a discipline policy with my child.</li><li>4. Attend all parent-teacher conferences.</li><li>5. Volunteer my time for at least 2 school activities.</li></ol>	
As a teacher _____, will:	<ol style="list-style-type: none"><li>1. Provide a safe comfortable environment for my students.</li><li>2. Provide ample time for my students to receive extra help after school.</li><li>3. Enforce school rules consistently.</li><li>4. Provide students with clear and concise expectations.</li><li>5. Work to make learning an enjoyable experience.</li></ol>	
Signed:		
_____ Student Signature	_____ Parent Signature	_____ Teacher Signature
		_____ Date
Powered by TeAch-nology.com- The Web Portal For Educators! (www.teach-nology.com)		

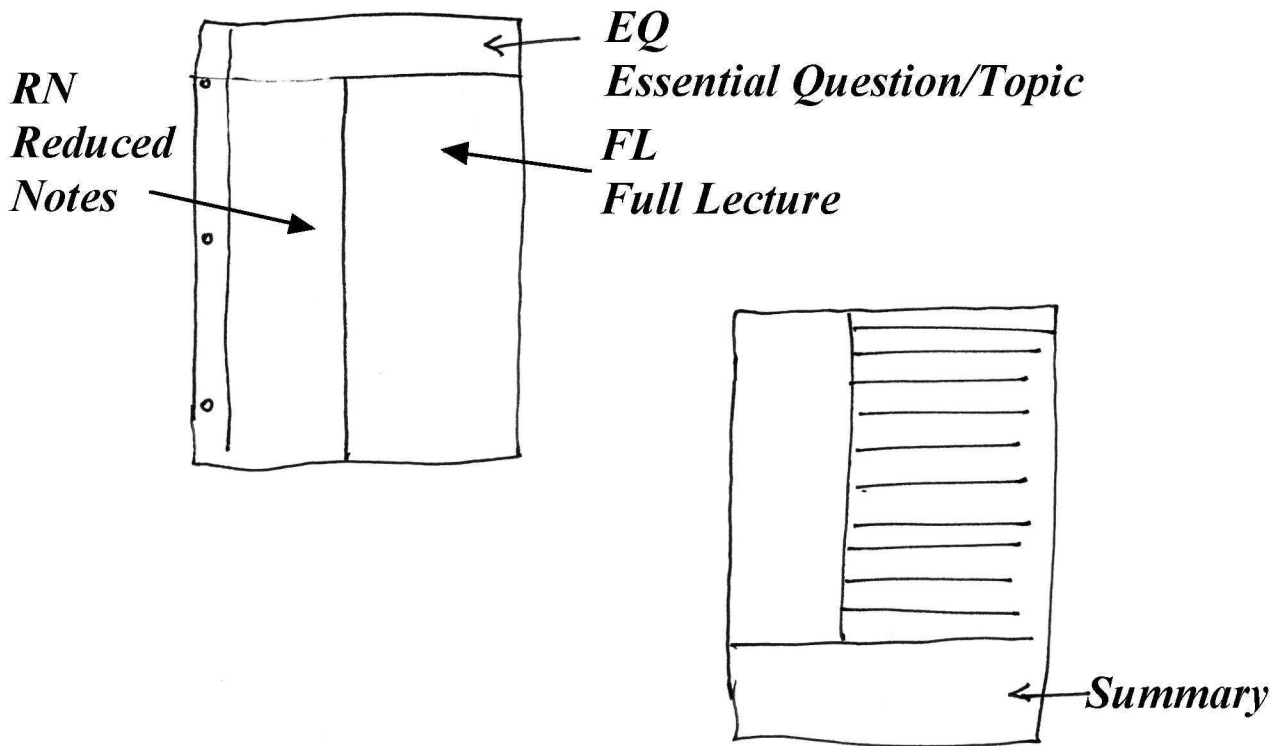
## *Instructions:*

*Contracts are written agreements between teachers and students that outline what the student will learn, how they will learn it, in what period of time, and how they will be evaluated. Contracts allow gifted students to actively engage in the decision making process about how they will be educated. One can not help, but notice the striking similarities that contracting has to the Individualized Education Program (IEP) which states the instructional services for individual students with disabilities. Visionary leaders such Dr. Rosanne Westagte (1999), head of special education at Southampton Schools, believe one day all students, regardless of ability, will have an IEP. Contract drafts could be initiated by students, reviewed by the teacher and ratified by signatures of both. Alternatively, contracts could be created by the teacher to meet a specific learning situation, or a collection of contracts could be pre-made to allow students to choose what they feel would suit them best.*

# *Cornell Note Taking*

*Useful for taking lecture notes or organizing/summarizing reading material.*

*Example*



*Instructions:*

*Using one of two formats (shown above), students gather and record notes using the 5 R's of note taking: Record, Reduce, Recite, Reflect, and Review*

*Further information can be found at:*

*<http://www.clt.cornell.edu/campus/learn/LSC%20Resources/cornellsystem.pdf>*



## ***Curriculum Compacting (aka Programmed Instruction)***

*Useful for removing redundancy (busy work) for students who possess mastery of subject matter prior to instruction.*

### *Example*

*Johnny transferred into your class at mid quarter. He had been in a student exchange program and is returning back to the States after visiting Japan. He has already covered the math units that you will be covering in the remainder of this quarter, though the units were in Japanese and he didn't always master the content. Pre-testing has shown where the difficulties are as well as the abilities. A contract is drawn up which will establish what this young boy must accomplish to get for a grade. The student and his parents read it, and when the contract is agreeable to all, it is signed.*

### *Instructions:*

*Programmed instruction was a book writing technique that enjoyed brief popularity in the late sixties. Programmed instruction was developed to allow students to move through material at their own pace. Questions were routinely asked throughout the presentation of the material. Based on the student's response to each question, the student was directed to a specific page – correct responses sent them to a page of new material, incorrect responses took them back for remediation. By the early eighties, the technique was updated to run on computers. However the instruction is provided, the basic concept of Curriculum Compacting is the same – not everyone moves through material at the same rate, and accommodations can be made to assist students with their requirements.*

# ***Determining Importance***

*Excerpted from <http://wilearns.state.wi.us>*

*Useful for developing reading comprehension. This is one of the six essential reading strategies.*

## *Example*

- Selectively highlighting a text.*
- Strategies such as inferring, visualizing, and synthesizing are all predicated on the assumption that a reader is capable of differentiating between what is significant and what is secondary in a text.*
- Readers who try to remember everything in a passage soon overload their short-term memories and are usually left with a very hazy notion of what they read. They may only recall details and miss the whole point of the text.*
- Features such as headings, bold or italic print, objectives statements, summaries, pull-quotes, and marginal notes can all guide a reader toward transcendent information and ideas. However, students do not automatically make effective use of these text features. Sometimes, students may skip right over them as they read along and lost in a maze of information as they read one fact after another.*

## *Instructions:*

*The strategy of Determining Importance helps a reader make decisions as to what parts of a text deserve the most attention. Not all information presented by an author is of equal importance. Some of the details are secondary and flesh out the background of a passage. Other details are vital for true understanding.*

*Determining Importance is also necessary for memory. Obviously, we do not remember everything from a selection. Instead, we fix on major ideas or themes and the key information related to them.*

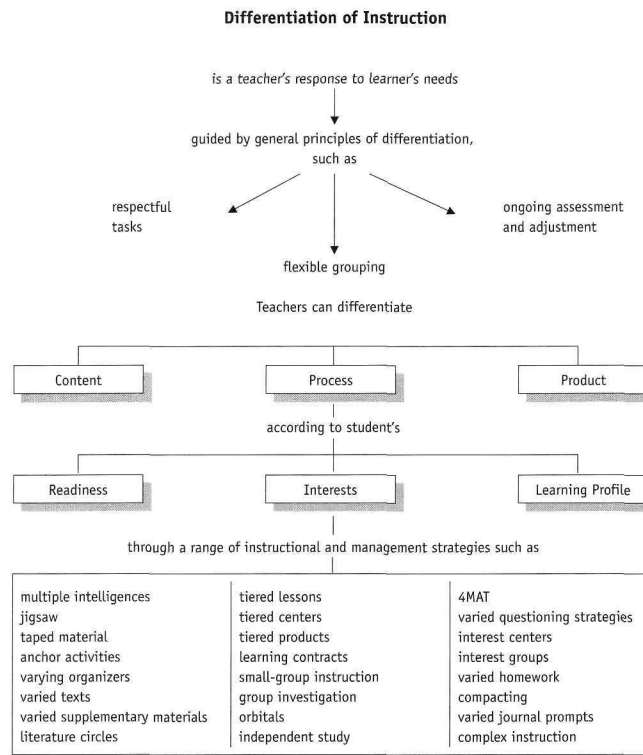
*Determining Importance is especially critical when reading nonfictional materials, materials that emphasize learning information. To become adept at using this strategy, students need to be taught how to "scout" out a selection to look for textual clues that signal items and ideas of central importance.*

*Determining importance is also related to the reader's purpose. We can read a text for a variety of purposes-for entertainment, to look for a specific piece of information.*

# Differential Instruction (DI)

*Useful for meeting the needs of each student and maximize their growth no matter their state of readiness.*

## Example



## Instructions:


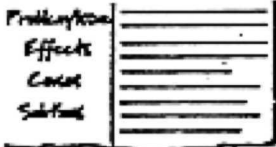
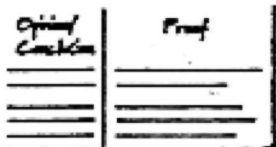
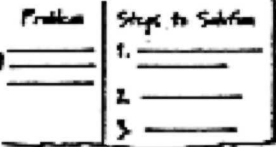
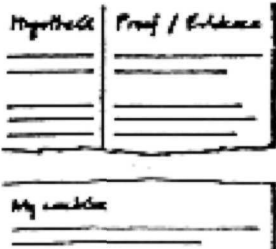
*Guided by the premise that each student comes into the classroom with varied readiness, interests, and learning styles, the instructor constantly assesses student needs and modifies content, process, and product requirements utilizing a toolbox of common (tried and true) strategies in a continuing effort to meet each of those student's classroom needs.*



# Double-entry Journals ( aka Two-Column Note Taking)

Useful for organizing and recalling information.

Example

Main Ideas: 5 major types	Details: When to use each type and examples of each	
Main Idea-Detail		Learning content from informational reading selections in which the material is presented sequentially
Problem-Solution		Analyzing problems in literature, current events, and life situations
Opinion-Proof		Drawing conclusions and supporting them with evidence from text and other sources
Process		Working through step-by-step processes to solve problems
Hypothesis-Proof		Analyzing written material according to theoretical assumptions and evidence, which is critical to thinking like a researcher

Project CRSS - Two-column Notetaking

Instructions:

Depending on the subject, instructional goals, and nature of the text, this strategy can appear in a variety of forms.

# **DOVE**

*Useful for peaceful and effective brainstorming.*

*Example*

**Do accept all ideas**

**Opt for originality**

**Variety and volume**

**Expand on other's ideas**

*Instructions:*

*Post the DOVE rules for all students to see. If students are unfamiliar with DOVE, the teacher should take time to model for them what DOVE and Anti-DOVE behaviors are like. Used in conjunction with brainstorming, this set of rules can help squeeze the most out of the student's brains. (It may not sound pleasant, but it will likely help you and your students to look real good!)*

## *Exit Slip (aka Ticket Out the Door)*

*Useful for engagement, reviewing, and assessing. .*

### *Examples*

- Write the homework assignment that is on the board in your assignment notebook before you leave class today.*
- If you scored lower than 75% on the last in-class assessment, then stop up to get an extra study guide before you leave today.*
- Make sure your lab tables are clean and dry and that your equipment is back in the organized arrangement it was in when you arrived before you return to your regular class seat.*
- When all the chairs are on the desks and you are all quiet then I will dismiss you.*

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

### TICKET OUT THE DOOR

Using your pre-reading strategies (text features, prior knowledge, and making predictions), write a short paragraph explaining what you already know about the topic and make an accurate prediction about the focus of the topic.

### *Instructions:*

*Give each student a specific task that must be accomplished prior to their leaving class. The last few minutes of a class are exciting ones for many students – anticipation of the end or of an upcoming beginning get students buzzing. Such excitement can lead to a teachable moment with the Ticket-Out-The-Door strategy. By using the last few minutes of the class for a review or quick assessment can keep the learning level high and improve student understanding or lesson planning.*

# ***Experimenting***

*Useful for developing understanding, measurement skills, reasoning skills, and to settle simple disagreements.*

## *Examples*

*Sample Question: If I had twenty-one cookies and I wished to give an equal number of cookies to each of seven children, then how many cookies would each child get?*

*Experiment: Hand one cookie to each of the children until each child has one cookie, then repeat this process until all the cookies are gone. Then ask each student how many cookies they got.*

*Repeat the experiment until a definite conclusion about the correct answer can be determined, and then report/record the answer.*

*Sample Question: Which would reach the ground first if dropped from the same height through the air: a single page from a book or a book full of pages?*

*Experiment: Hold the page in one hand and the book of pages in the other hand. Position both until they are equally far above the ground. At a random moment, drop both items and observe which reaches the ground first. Repeat this experiment until a definite conclusion about the correct answer can be determined, and then report/record the answer.*

## *Instructions:*

*The actual steps of each different experiment varies depending upon the problem being solved. However, there are some common practices associated with experiments. These include stating the problem before developing an experiment, clearly communicating the steps that will be taken prior to conducting the experiment, taking care to follow the stated set of steps during the experiment, and keeping an open mind as the results are recorded or summarized.*

## *Face the Fact*

*Useful for assessment.*

*Example*



*Instructions:*

*Students can make gestures or notations to indicate their choice to directed questions. The responses to those questions can provide immediate feedback to guide the student in future responses. The responses to the questions can also be used by the teacher to: guide further questioning, guide further instruction, or provide information for the gradebook.*

# **FANBOYS**

*Useful for students who are having difficulties writing compound sentences correctly.*

*Example*

*Given the following two simple sentences, form a compound sentence:*

*The cat ran.      The dog jumped.*

*Possible compound sentence answers include:*

*The cat ran; the dog jumped.*

*The cat ran, and the dog jumped.*

*The cat ran, but the dog jumped.*

*The cat ran, so the dog jumped.*

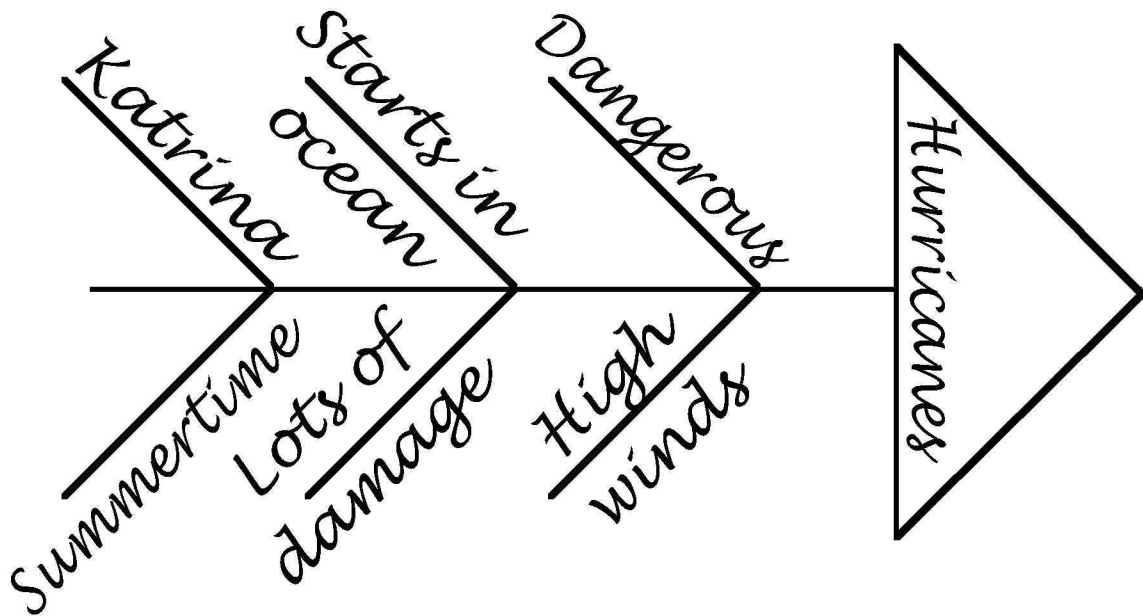
*Instructions:*

*FANBOYS is a mnemonic for the conjunctions For, And, Nor, But, Or, Yet, & So (which link together two simple sentences to form a compound sentence). To form a compound sentence, remove the period from the first simple sentence and replace it with a semicolon, OR replace the period with a comma followed by a space and an appropriate member of the FANBOYS followed by another space. Then change the first letter of the second sentence to lowercase (for non-proper nouns) and complete the compound sentence with the remainder of the second simple sentence.*

# ***Fishboning***

*Useful for outlining or brainstorming, this is a type of concept map.*

*Example*



*Instructions:*

- 1. Using a teacher provided form (like the one above) to fill out, or starting from scratch, establish a topic in a triangular region which represents the bony head of a skeletal fish.*
- 2. Establish a horizontal line (if one is not provided) which will represent the bony spine of the fish.*
- 3. Jutting out at 45° angles from the spine, establish lines to represent the bony ribs of this skeletal fish.*
- 4. Each bony rib can hold a sub-topic related to the main topic.*
- 5. Additional branches could be added to each bony rib (as needed) to hold sub-sub-topics (and so on).*

# Five W's

*Useful for helping direct a reader's thoughts so that they can get from a reading what was intended. This can make outlining easier and more complete.*

*Example*

**5W**

Main Idea
-----------

- Who?
- What?
- Where?
- When?
- Why?

What you read from the text...	What you know...
W	~~~~~ ~~~~~ ~~~~~ ~~~~~
W	~~~~~ ~~~~~ ~~~~~ ~~~~~
W	~~~~~ ~~~~~ ~~~~~ ~~~~~
W	~~~~~ ~~~~~ ~~~~~ ~~~~~
W	~~~~~ ~~~~~ ~~~~~ ~~~~~

*Instructions:*

*As a student reads, he or she hunts in the assigned reading for the answer to each W question.*

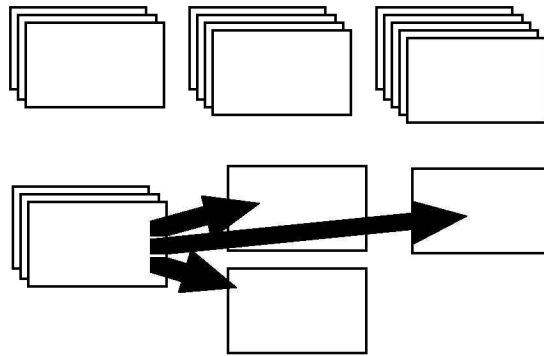
*When an answer has been determined, it is placed in the appropriate portion of the five-W's form (exemplified above).*



# *Flash Cards*

*Useful for studying vocabulary and information sets.*

## *Examples*



## *Instructions:*

*Many specific activities can be carried out with flash cards to assist in studying assigned material. Two are presented below, but for others visit: <http://www.flashcardexchange.com/>*

*or visit: [http://www.abcteach.com/directory/basics/flashcards/color\\_flashcards/](http://www.abcteach.com/directory/basics/flashcards/color_flashcards/)*

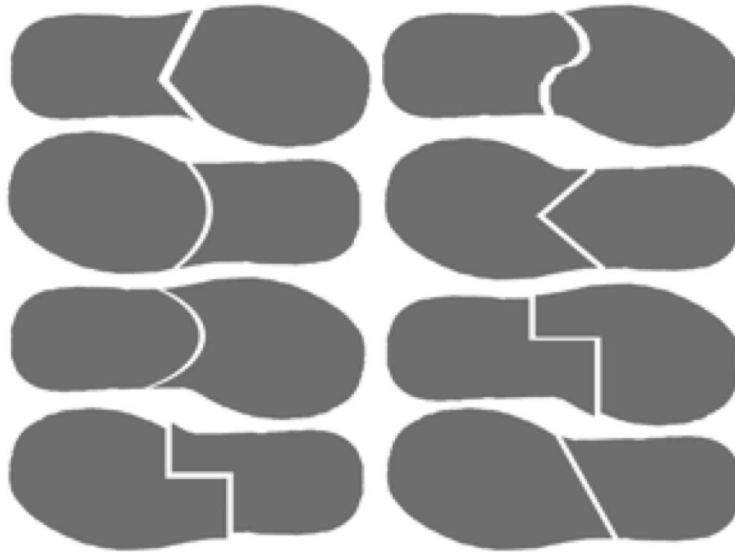
- 1) The process of making cards is a kinesthetic xeroxing activity that can help students recall the information on each card.*
- 2) By “flashing” cards either independently or in groups, students can gain familiarity associating questions with answers. A useful technique involves pulling off three cards from a stack of many and presenting a question before waiting no more than five seconds for a response. When the response is given or if time expires, the card is placed on the bottom of the deck and the next card is “flashed”. When all three cards can be flashed without mistake or pause, two more cards are drawn from the main deck (making 5 cards), and the process of flashing cards is repeated. After 5 cards are mastered, add two more. And when all seven cards are mastered, set those seven cards aside, and begin again with three new cards from the main deck. repeat until all cards are tested.*

## *Flexible Grouping*

*Useful for changing environment and to please kinesthetic learners who like to move about during a class period.*

### *Example*

*Sole-Mating: Cutouts (see below) of various pieces of soles are distributed to each member of the class. Each toe-bearing portion of the sole has a matching heel-bearing portion. It is then left to the students to find their “sole-mate” before embarking on the paired-activity that the sole-mate activity grouped them for.*



### *Instructions:*

*A cornerstone of DI, flexible grouping responds to student diversity by recognizing that a single grouping will likely not meet the varied learning styles, readiness, and preferences of all the members of whatever group is formed. Without being flexible when it comes to pairing or grouping students, differentiated instruction will likely not occur.*

# *Flip Book*

*Useful for breaking a product/assessment into manageable parts.*

## *Example*

*After reading a story, students complete a flip book on the different story elements. Each page of the flip book can contain, pictures, words, or symbols.*

<i>Title</i>
<i>Characters</i>
<i>Setting</i>
<i>Problem</i>
<i>Solution</i>
<i>Lasting Impressions</i>

## *Instructions:*

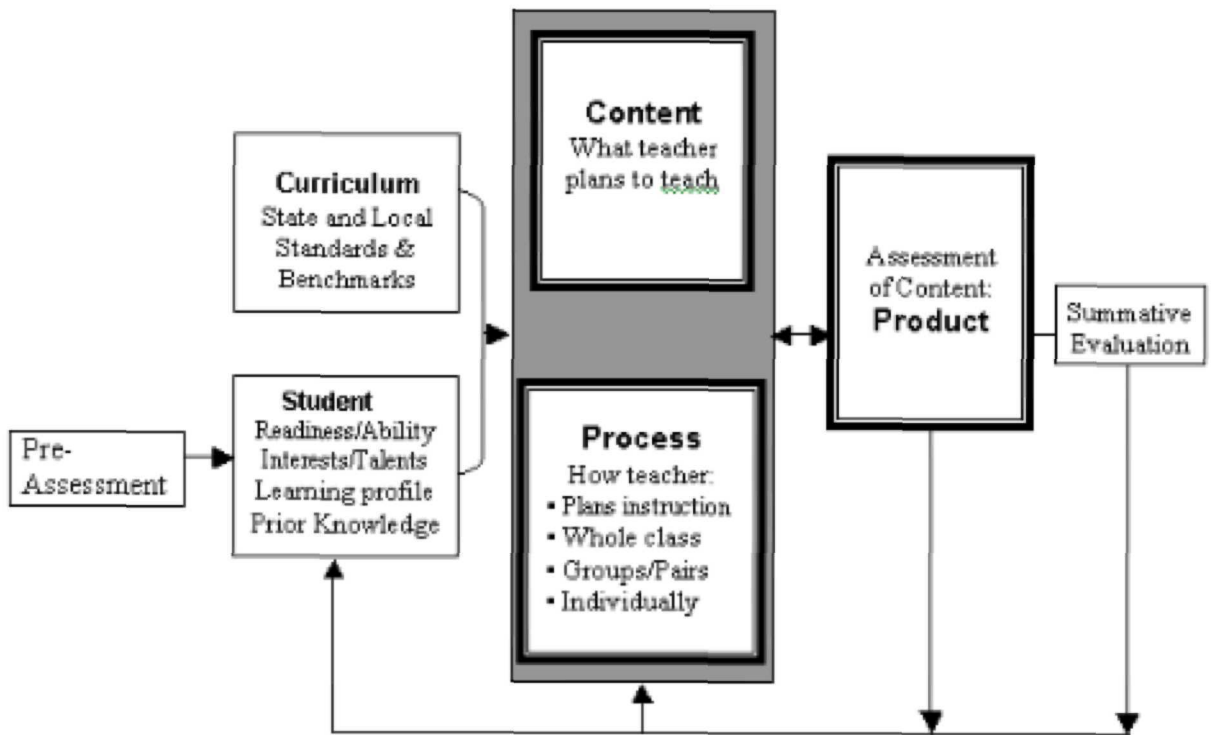
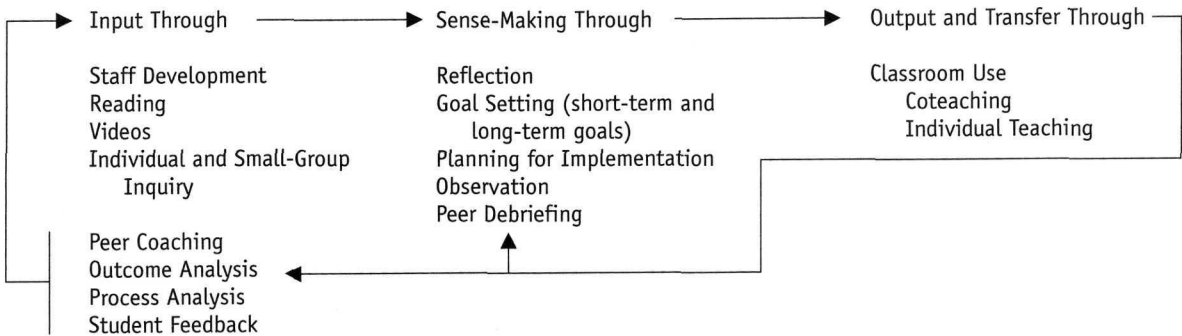
- 1. Depending on the number of pages needed for the book, use different quantities of paper. Two sheets of paper can make 4 pages, Three will make 6, and so on.*
- 2. Layer the sheets so that the bottom sheet has approximately an inch visible at the bottom. Then layer the next sheet on top with roughly the same offset. Continue until all the sheets are stacked.*
- 3. For all the sheets, fold them one at a time to make a booklet that you can “flip through”.*
- 4. Staple the booklet and laminate if desired.*

# Flow Chart

Useful for sequencing a collection of items. This would be a useful differentiation for a visual learner.

Example

**Figure 10.1**  
**Becoming Practitioners of Differentiation**



(adapted from Oakford, L. & Jones, L., 2001)

**Instructions:**

Flow charts are particularly applicable to historical topics and topics involving sequenced processes (as in science labs or solutions to math problems).

## ***Formal Assessments***

*Useful for monitoring student performance and rating students work.*

*Example*

**Posters**

**Story Books**

**Raps**

**Portfolios**

**Logs**

**Exams**

*Instructions:*

*Formal assessments are any items that make it into a teacher's gradebook. Formally this meant quizzes and exams. However, in an effort to reward/recognize other intelligences, formal assessments now include many other types of graded work. Often associated with the non-exam style of assessment is the "rubric" which is used to rate the alternate assessment.*

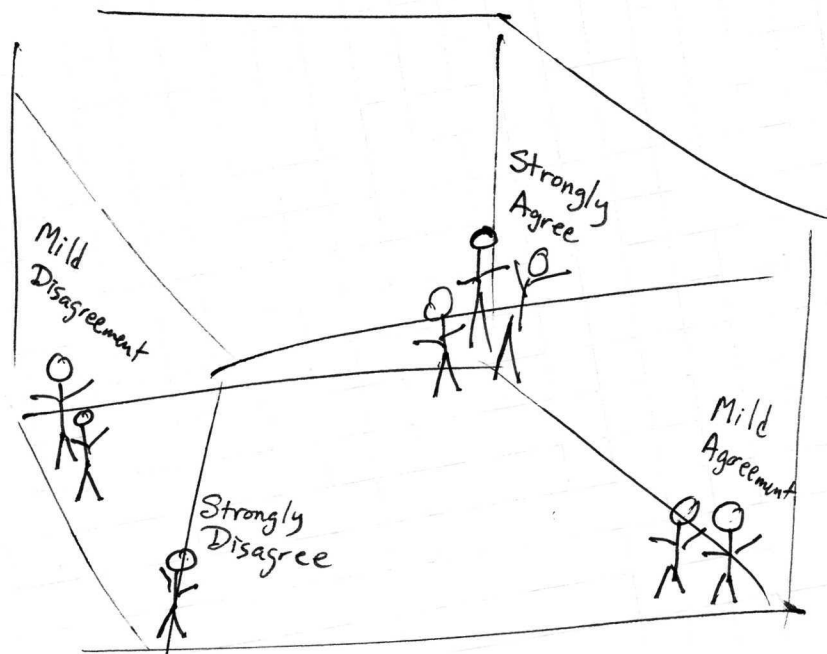
*For more on rubrics go to:*

*<http://rubistar.4teachers.org/index.php>*

# Four Corners

*Useful for helping students to commit to decisions. Addresses the preferences of the kinesthetic and interpersonal learners.*

## Example



## Instructions:

*Students are sometimes reluctant to make a decision. Sometimes it is because they fear what others might say or think. Other times it is because they don't like how they feel when they are wrong. However without making a definite choice students rob themselves of an opportunity of "feeling right" or worse of "learning from a mistake". By setting up choices in different parts of the room, students are forced to "take a stand for their choice". Great for pre-testing or for review.*

# *Framing*

*Useful for writing paragraphs.*

*Example*

*Weather in Montana is erratic. First.... Second.... Then.... |  
It is hard to believe .....*

*Weather in Montana is erratic. First, it doesn't get cold until December. Second, there isn't any snow for Christmas. Throughout January it changes from warm to cold, and in February it snows more. Then, in March, it is sixty degrees until the last days when it snows. It is hard to believe that weather can be so different.*

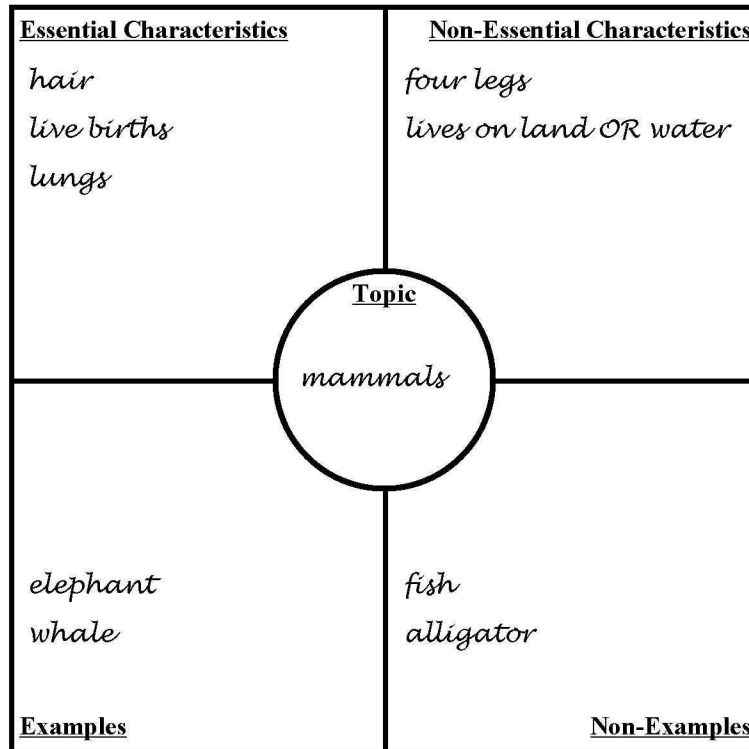
*Instructions:*

- *The topic sentence is a general statement or opinion.*
- *Use from 3 to 5 examples to develop the topic or opinion.*
- *Use transitions when needed.*
- *Include a summary sentence at the end, if you wish.*
- *Incorporate a variety of sentences: long and short, simple and complex.*

# ***Frayer Model***

*Useful for developing understanding of vocabulary terms.*

*Example*



*Instructions:*

*Place the topic to be considered in the center circle, and then work to correctly complete the remaining portions of the chart.*

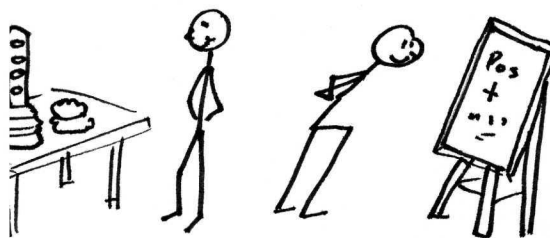


## *Gallery Walk (Museum Walk)*

*Useful for sharing finished work.*

### *Examples*

- projects*
- pictures or posters*
- art projects*
- math manipulatives*



### *Instructions:*

*Lay projects out, students walk around with hands behind their backs and voices off as they observe other's work.*

## *Gardner's Multiple Intelligences*

*Useful for lesson planning. Gardner's Multiple Intelligences is a product of research into how the brain works. It is a cornerstone of DI in that it is the basis for classifying different types of learners by learning preferences and style.*

### *Example*

Howard Gardner initially formulated a list of seven intelligences. His listing was provisional. The first two are ones that have been typically valued in schools; the next three are usually associated with the arts; and the final two are what Howard Gardner called 'personal intelligences' (Gardner 1999: 41-43).

**Linguistic intelligence** involves sensitivity to spoken and written language, the ability to learn languages, and the capacity to use language to accomplish certain goals. This intelligence includes the ability to effectively use language to express oneself rhetorically or poetically; and language as a means to remember information. Writers, poets, lawyers and speakers are among those that Howard Gardner sees as having high linguistic intelligence.

**Logical-mathematical intelligence** consists of the capacity to analyze problems logically, carry out mathematical operations, and investigate issues scientifically. In Howard Gardner's words, it entails the ability to detect patterns, reason deductively and think logically. This intelligence is most often associated with scientific and mathematical thinking.

**Musical intelligence** involves skill in the performance, composition, and appreciation of musical patterns. It encompasses the capacity to recognize and compose musical pitches, tones, and rhythms. According to Howard Gardner musical intelligence runs in an almost structural parallel to linguistic intelligence.

**Bodily-kinesthetic intelligence** entails the potential of using one's whole body or parts of the body to solve problems. It is the ability to use mental abilities to coordinate bodily movements. Howard Gardner sees mental and physical activity as related.

**Spatial intelligence** involves the potential to recognize and use the patterns of wide space and more confined areas.

**Interpersonal intelligence** is concerned with the capacity to understand the intentions, motivations and desires of other people. It allows people to work effectively with others. Educators, salespeople, religious and political leaders and counselors all need a well-developed interpersonal intelligence.

**Intrapersonal intelligence** entails the capacity to understand oneself, to appreciate one's feelings, fears and motivations. In Howard Gardner's view it involves having an effective working model of ourselves, and to be able to use such information to regulate our lives.

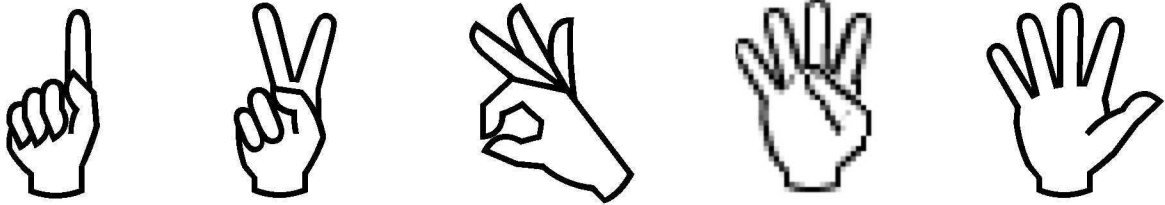
### *Instructions:*

*Using the results from frequent assessments, a picture of each student's learning styles and preferences can be developed, and that picture can then be used in planning to better meet each student's educational needs and desires.*

## *Give Me Five (Fist to Fives)*

*Useful for informal assessment.*

*Example*



*Instructions:*

*Give Me Five is a technique for quickly assessing student performance. At any given time in class a teacher can ask students to Give Me Five. It could be done to see how close to being done the students are. Or it could be done to check an answer or rate a situation. The technique should be modeled and practiced so that everyone signals correctly as they intend to.*

## ***Give One - Take One***

*Useful for brainstorming. Especially useful for students with verbal/linguistic, kinesthetic, and interpersonal preferences or styles.*

### *Examples*

*We used this strategy in class when we shared ways in which we could use Power Thinking with our students.*

- 1. a) Rhythm b) sounds & silences c) ♩, ♪♪, ♫♪♪ & =, {}, 7777*
- 2. Keep track of characters in a novel*
- 3. a) Paragraph b) Topic Sentence c) Supporting Sentences*

### *Instructions:*

*On sheets of notebook paper, each student numbers from one to whatever they are directed to by the teacher.*

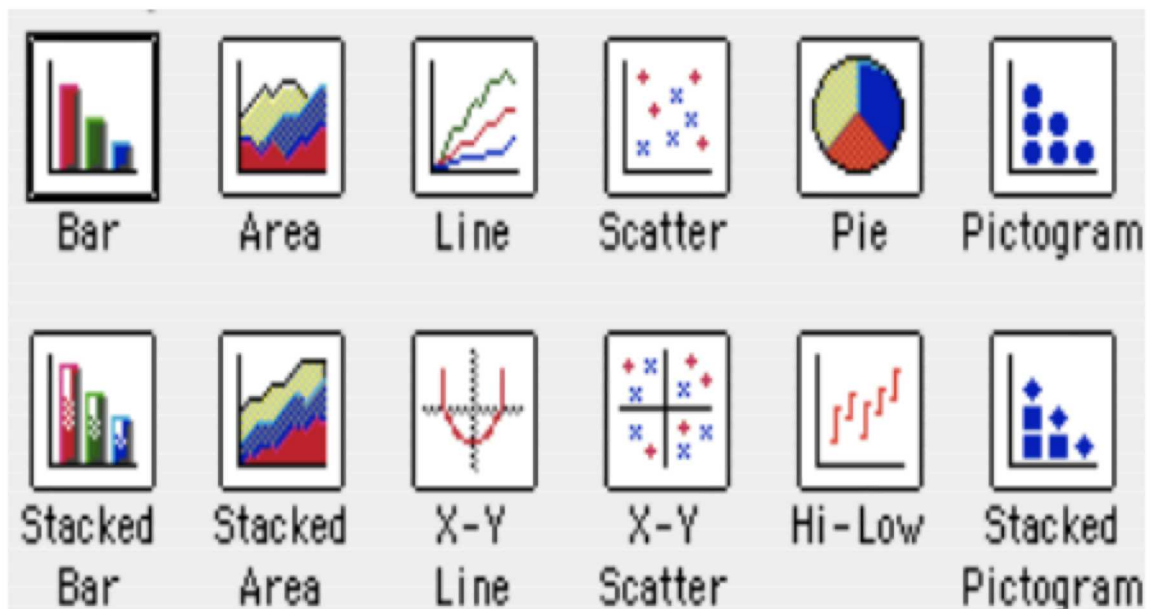
*Each student writes his or her own idea by the number one on that paper.*

*Students then circulate through the room, sharing their idea with others and recording others' ideas until they have filled each numbered space on his or her paper.*

# Graphing

*Useful for visualizing amounts., identifying differences, and discovering trends. Appeals to the logical thinker as well as to the visual learner. Growth and progress can not only be assessed with graphing, but the results of assessments can oft times be more clearly communicated to student, parents, and other teachers through the use of graphs.*

## *Examples*



## *Instructions:*

*At first have students read graphs. Then, when that skill is mastered, have them develop the skill of making graphs. And after students have read and constructed several different types of graph, then start to introduce how graphs can be interpolated, and extrapolated and otherwise analyzed to: make predictions, solve problems, and discover formulas.*

## ***Group One-Liner***

*Useful for condensing information into key points. Addresses the styles of: interpersonal, intrapersonal, and verbal/linguistic learners.*

### *Example*

*After reading the article, “Teach Me, Teach My Brain - A Call For Differentiated Classrooms.”, the class was broken into small groups. Each group discussed the key points, and then a spokesperson for each group reported back to the entire class.*

### *Instructions:*

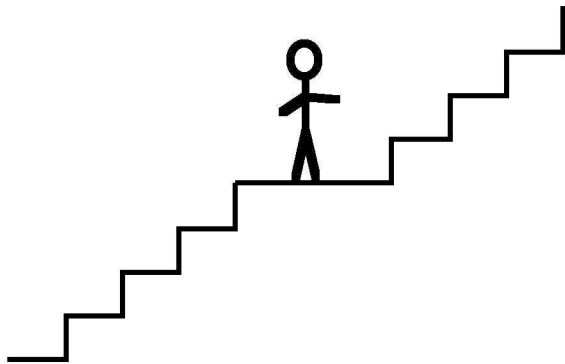
- 1. Students read a selection (chapter, article, etc.)*
- 2. Students discuss the key points in groups (random, teacher, directed, or student selected).*
- 3. Students collaborate to create a one-sentence (a “one-liner”) summary of the material. (Lends itself well to White-Boarding).*
- 4. Each group shares the “one-liner” with the entire class.*
- 5. Option for extending the activity: each group defends its “one-liner” explaining how they arrived at that conclusion.*

# *Heaven & Hell*

*Useful for an assessment strategy that discourages guessing, keeps students from blurting out answers, and promotes thinking before acting.*

## *Examples*

*Right answers on this test are worth +10 points each, while wrong answers are worth -2 points each.*



*True or False. When the music stops, everyone sing the next note and hold it. The reward is a beautiful tone for all to hear. The punishment is the embarrassment associated with hitting a clinker for the other ears to hear.*

## *Instructions:*

*Often times students are motivated to either strive to gain rewards or to avoid punishments. Heaven & Hell motivates by using both strategies and is therefore a more intense motivator. However more importantly, the existence of Heaven & Hell reminds teachers that sometimes when they intend to motivate with a reward the circumstance might actually be a Heaven & Hell circumstance. The difference might be important if a shy or sensitive student were to be embarrassed by the situation (& worse if they never saw it coming).*

# Helping Hands

Useful for helping students memorize helping and linking verbs.

Example



*Instructions:*

*Each student should get a copy of the study aid shown above. A poster of the study aid can also be placed in the room for students to refer to.*



# *Highlighting (aka Selective Highlighting)*

*Useful for*

*Example*

'BUSINESS AS USUAL AFTER THE WAR'  
H G WELLS  
*The Living Age (1897-1941)*; Aug 31, 1918; 11, 3869; APS Online  
pg. 553

## 'BUSINESS AS USUAL AFTER THE WAR'

### A GERMAN DELUSION

BY H. G. WELLS

THE recent utterances of Herr Dernburg upon the necessity of an economic League of Nations after the war, are quite the most suggestive indications we have yet had that there is any realization in Germany

the loss of Africa, persuading itself that the submarine campaign of murder, privation, and annoyance is really a campaign of victory, and persuading itself, too, that a narrow and unsympathetic system that has failed

*Instructions:*

- 1. Read through the selection.*
- 2. Reread the selection and begin highlighting selective phrases (key ideas).  
Avoid highlighting whole sentences.*
- 3. Identify main ideas with special notation (e.g.. Asterisks or Numbered Notes)*
- 4. Using margin spaces, write-in comments or questions to link ideas or clarify passages.*

# ***Hooks***

*Useful for helping students remember.*

## *Example*

*Before starting a unit on nutrition, the teacher can ask students to imagine they will one day own the car of their dreams. But whatever car that is, it will be the only car they will ever own—it will have to last them for the rest of their lives. What care will this car require? What can be done to make it last longer? What actions would shorten the car's life?*

*When the unit begins, the car is compared to the human body. Then throughout the unit, the comparison of a body's needs to a car's needs are used to make the concepts easier to understand.*

## *Instructions:*

*Commonly used during brief lectures. Hooks could be made to appeal to any type of learner, but are most often verbal, visual, auditory, or kinesthetic. Some teachers believe that hooks are best when only a few are used and the few that are used are referred to often.*

## ***Hypothesizing***

*Useful for focusing instruction. Hypothesizing is a key component of many scientific methods. It is possible to learn from mistakes as well from successes. However, it is harder for students to learn from either if they don't take a stand to know which it is they have to learn from. A good hypothesis has two main attributes: it is testable and the statement contains "a basis" for the guess that was made (hence it is an educated guess).*

### *Example*

*Question: When dropped through the air from a height of three feet, which falls to the ground in less time: a baseball or a feather?*

*Hypothesis: Since a baseball weighs more than a feather, it would be pulled to the ground harder and should make it to the ground first.*

*Hypotheses don't have to be correct—they just have to be reasonable and testable. In the hypothesis above, it is certainly possible to drop both objects and see which wins (so the hypothesis is certainly testable). Likewise, the hypothesis above states WHY the guess was as it was. If the test shows the guess to be correct, then the student can boast of having known something. If the guess is found to be incorrect, then the student can boast of having learned something.*

### *Instructions:*

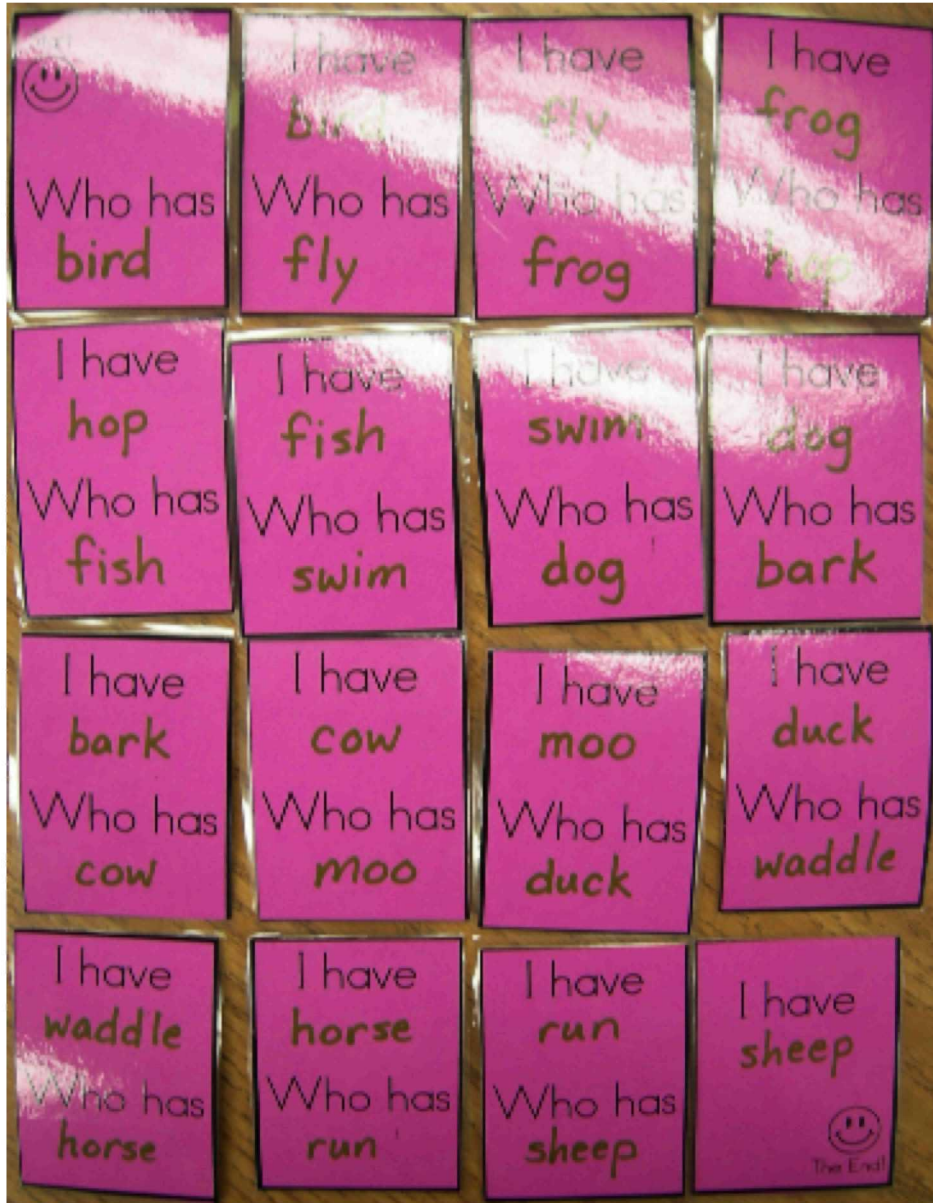
*Have students write down their hypotheses prior to any test.*

*(Students are often tempted just to try things out instead of thinking first. This robs them of the chance to test themselves and to truly learn.) An anticipatory guide can be very useful in helping students to monitor their growth in understanding. Hypotheses aren't only used in science, making educated guesses during reading can make a whodunit more fun, or can help act as a double-check for an upcoming math problem's solution.*

# *I Have - Who Has?*

*Useful for keeping students engaged as well as for review.*

*Example*



*Instructions:*

*This strategy uses a set of cards that play off each other (see the example above). The goal is to have students work through the series of cards in the least amount of time (and with the fewest mistakes).*

## ***Inferencing (aka Inferring)***

*Useful for promoting the needs of the logic smart learner and for delving further into a topic to find “deeper” meaning.*

*This is one of the six essential reading strategies. An inference is a conclusion based upon evidence or reasoning. Most laboratory exercises and many reading exercises use inferencing to give meaning to the material. A student with well developed inferencing skills can make good predictions and can understand and develop theories which envelope multiple laws and/or facts.*

### *Examples*

*All triangles have exactly three straight sides.*

*The figure before us has exactly three straight sides.*

*We can infer that the figure before us is a triangle.*

*Good answer form was defined in class as having full sentence responses. The response you submitted didn't use a full sentence. Your response was not in good answer form.*

### *Instructions:*

*Inferencing comes “naturally” to some students, but not to all, and yet inferencing is a necessary skill for many life tasks and careers. Therefore in many students, inferencing must be “developed”. One way to effectively develop logical deduction (a type of inferencing) is to model it with simple clear examples. Then, when logical deduction leads to conclusions which are less obvious, the conclusions will still be considered correct.*

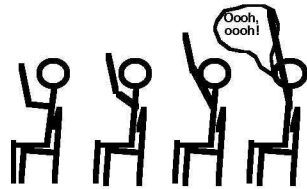


# *Informal Assessments*

*Useful for pre- and ongoing assessment.*

## *Examples*

*Arm Gauge:*



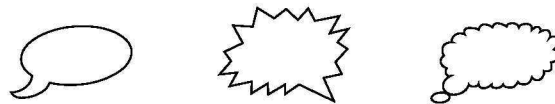
*Face the Fact:*



*Fist of Five:*



*Speech Bubbles:*



*Thumbs up:*



## *Instructions:*

*Students can make gestures or notations to indicate their choice to directed questions. The responses to those questions can provide immediate feedback to guide the student in future responses. The responses to the questions can also be used by the teacher to: guide further questioning, guide further instruction, or provide information for the gradebook.*

# Jeopardy

*Useful for review and assessment.*

*Example*

Colors	Letters	Numbers	Weather	Time	Shapes
<u>\$100</u>	<u>\$100</u>	<u>\$100</u>	<u>\$100</u>	<u>\$100</u>	<u>\$100</u>
<u>\$200</u>	<u>\$200</u>	<u>\$200</u>	<u>\$200</u>	<u>\$200</u>	<u>\$200</u>
<u>\$300</u>	JEOPARDY!	<u>\$300</u>	<u>\$300</u>	<u>\$300</u>	<u>\$300</u>
<u>\$400</u>	JEOPARDY!	<u>\$400</u>	<u>\$400</u>	JEOPARDY!	<u>\$400</u>
JEOPARDY!	<u>\$500</u>	<u>\$500</u>	<u>\$500</u>	JEOPARDY!	<u>\$500</u>

*Instructions:*

*This game can be played using a computer, game console, or with cardstock note cards. For a quicker game, the number of rows and/or columns can be reduced (4 x 3 works well with the top row being categories). If note cards are used, the cards can be taped to a board so that a point card (e.g., \$200) is on top with a question card underneath. A student picks a category and a point value which directs the teacher to a spot on the jeopardy board. Reaching under the top point card, a teacher takes a question card. The teacher reads the answer to the card and the students try to state the question that the question card answered. Whoever questions correctly gets to keep the point card and select the next category. Additional fun can be had if students make up the categories or question/answer cards ahead of time.*

# *Jigsawing*

*Useful for giving students responsibility over each others' learning. (students teaching other students).*

## *Example*



## *Instructions:*

- 1. Divide students into groups and distribute different information to each group. Each group is to become an expert on their information.*
- 2. Advise each group as to the amount of time they will have to prepare along with any other guidelines they will need to follow.*
- 3. After each group has prepared themselves, have the members of each group number off. Use these numbers to re-assign members to new groups.*
- 4. Within the new groups, each member should share what they prepared in their previous group.*
- 5. Repeat the process of regrouping and sharing until has been exposed to each group's information.*



# *Journaling*

*Useful for monitoring educational growth. Can be used by students for self-evaluation and for teachers to assess student work.*

*Journaling appeals most to the verbal/linguistic learner.*

## *Examples*

*Over the two weeks given to develop a device that will protect an egg from breaking after a ten-foot drop, the student will keep a log of what was done each day.*

*During each day of the three weeks of this geometry unit, please keep track of the major vocabulary terms, theorems, and concepts covered in class.*

## **What was Done Today Daily Report for Physics**

Name \_\_\_\_\_ Period \_\_\_\_\_ Date \_\_\_\_\_

Today I worked on \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

One important thing I learned was \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## *Instructions:*

*Directions will vary depending on the actual assignment, however the key component of journaling is writing on a specific topic at a specific time each day.*

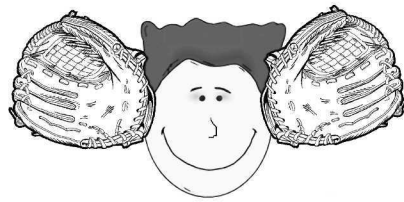
# ***Key Word***

*Useful for helping students recall information and uncover interesting facts. Useful for teachers to cut down on plagiarism. This technique appeals most to the verbal/linguistic learner, but could be used with visual/spatial learners as well.*

*Example*

***Keyword***  
*baseball glove*

***Topic = Hearing***



***Sentence***  
*Your outer ear catches sounds like a baseball glove catches baseballs.*

***Instructions:***

*After reading, students can think of a “key word” that will help them trigger the information that they were exposed to. The “key word” technique is useful with either fiction or nonfiction, and can be effective if the teacher uses keywords (but is more effective if the student develops their own keywords).*

## ***Kinesthetic Learning***

*One of the 8 (or 9) major learning styles.*

*Useful for students who need to manipulate an object or who need to move to learn.*

### *Examples*

*Lower Elementary: Rolling clay into long thin cylinders and using those cylinders to form numbers, letters, and/or words.*

*Middle School: Use wikki sticks to form the outline of a country.*

*High School: Moving flashcards about to classify ideas/concepts that are prewritten on those flashcards.*

### *Instructions:*

*With space a consideration, anything that allows movement to help learn or reinforce a skill/concept.*

## ***Knee to Knee/Eye to Eye***

*Useful for sharing ideas with a partner. This technique appeals most to the kinesthetic and interpersonal learners.*

### *Example*

*Sharing a favorite part of a story.*

*Sharing a journal topic.*

*Brainstorming for prewriting.*

### *Instructions:*

- 1. Get with partner.*
- 2. Both partners should find a spot on the floor or chair and sit down facing one another.*
- 3. Partners should take turns being good speakers/good listeners.*
- 4. Partners split up and move back into individual work time.*

## ***KUDos (aka Outcome-Based Instruction)***

*Useful for classroom planning. KUDos is a mnemonic for Know, Understand, and Do.*

### *Example*

*You are just about to take your students through a three week unit on the weather. In order to plan an effective lesson, where do you begin?*

- 1st: What do you want the students to know? Make a list of the terms, concepts, and skills that will be covered.*
- 2nd: To understand the terms and concepts the students will be introduced to them with the aid of brief lectures, demonstrations, and videos. Selected readings from the text will also be given to them. Throughout the unit, formal and informal assessments will be used to monitor progress and gauge lesson effectiveness.*
- 3rd: Utilizing the class learning style profile developed thus far, reading assignments and activities are planned to meet the needs of most students. A “tic-tac-toe” board will be used to provide additional activities to meet the needs and profiles of the remaining students.*

### *Instructions:*

*See Differentiated Instruction (DI) p26*

# KWL

*Useful for classroom planning and working through a unit. KWL stands for Know, Want, Learn. This is an activity that can help children learn the reading strategy of Questioning (p 103).*

## *Example*

### ***Topic – Native Americans***

Know	Want to Know	Learned
Native Americans lived in Teepees.	Why did Native Americans wear feathers?	Native Americans earned feathers.
Native Americans had totem poles.	What did Native Americans eat?	Native Americans had different homes: <ul style="list-style-type: none"><li>• wigwams</li><li>• adobe</li><li>• teepees</li><li>• longhouses</li></ul>
Native Americans had long hair with braids.	How did Native Americans have fun?	Native American children played games to learn skills.
Native Americans hunted for food.		Native Americans of the plains hunted buffalo.

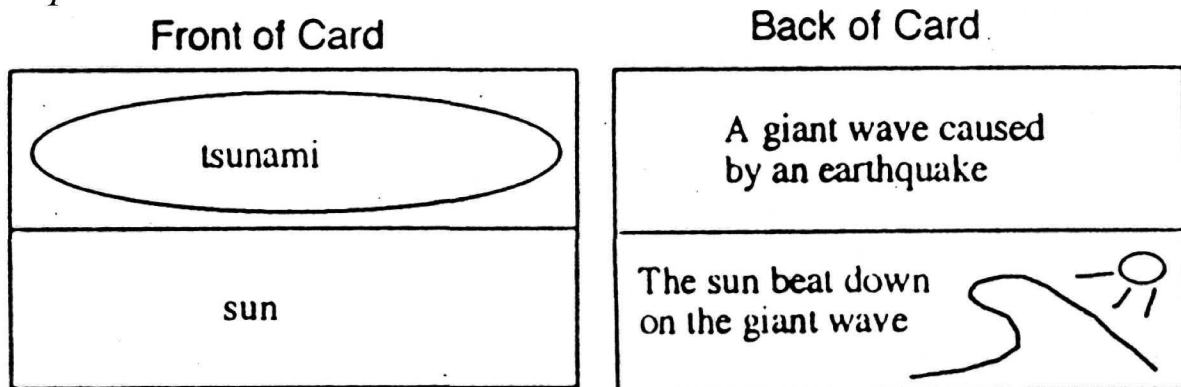
### *Instructions:*

*Start with a chart (like the one shown above) at the beginning of a unit. The chart has headings of Know, Want to Know, and Learned. Beginning with Know, have students brainstorm information that they know about a topic. Then they go to Want to Know. Have students ask questions. This section may go on throughout the unit. Close the unit with Learned. Have the students fill in the portion of the chart with items that they learned. This column may be answers to questions or just interesting facts. Always be sure to review the Want to Know column to make sure which questions need answering.*

# LINC*s*

Useful for learning vocabulary words.

*Example*



*Instructions:*

*Step 1 List the parts*

- List the word on a study card.
- List the most important parts of the definition on the back of the study card.

*Step 2 Imagine a picture*

- Create an image in your mind of what the word is about.
- Describe the image.

*Step 3 Note a Reminding Word*

- Think of a familiar word that sounds like the new word, or part of the new word.

*Step 4 Construct a LINCing Story*

- Make up a short story about the meaning of the new word that includes the Reminding Word.
- Change your image to include your story.

*Step 5 Self-test*

• *Self-test "forwards":*

1. Say the new word.
2. Say the Reminding Word.
3. Think of the LINCing Story.
4. Think of the image.
5. Say the new word's meaning.
6. Check to see if you're correct.

• *Self-test "backwards":*

1. Say the meaning of the word.
2. Think of the image.
3. Think of the LINCing Story.
4. Think of the Reminding Word.
5. Say the new word.
6. Check to see if you're correct.

# ***LIP***

*Useful for asking questions about literature.*

## *Example*

*Consider the nursery rhyme from the 1881 edition of Mother Goose:*

Ring a ring o' roses,  
A pocketful of posies.  
Tisha! Tisha!  
We all fall down.

Q. In this rhyme, what was in the pocket? (A. Posies **L**iteral)

Q. What is a possible “hidden topic” that this rhyme refers to?

(A. The sneezing and falling down referenced in this rhyme dates back to the days of the Great Plague of the 1600’s. A rosy rash was a symptom of the plague, posies of herbs were carried as protection, sneezing was a final fatal symptom, and 'all fall down' was exactly what happened when the plague claimed another victim. **I**nference)

Q. If this poem were actually about victims of Black Death, then how would you feel about having your kids singing it on the playground? (A. May vary. **P**ersonal)

## *Instructions:*

*LIP is a mnemonic for the categories used in QAR:*

**L**iteral questions whose answers can be found directly quoted in the reading (e.g.. right there).

**I**nferential questions whose answers are not directly quoted in the reading, but whose answers become apparent when the material is understood.

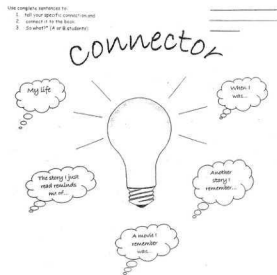
**P**ersonal questions whose answers require the students to draw from their personal experiences.



# Literature Circles

Useful for any discussion of reading.

Example Materials



ASSESSMENT  
Reflection Group: Self-Assessment

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

Under 1 participated: too much ☐, too little ☐, just the right amount ☐

My most important contribution to the discussion was \_\_\_\_\_

Our group is getting better at \_\_\_\_\_

We still need to work on \_\_\_\_\_

Rating Scale:

- 1. great job
- 2. pretty good
- 3. I could do better
- 4. I need to make a plan for improving

My score \_\_\_\_\_

- 1. I read the selection thoughtfully.
- 2. I marked key points in the text with sticky notes.
- 3. I prepared by thinking about what I would say to the group.
- 4. I listened on the way to say the good to other books I have read.
- 5. I thought about critical story elements.
- 6. I asked questions when I didn't understand.
- 7. I had eye contact with members of my group.
- 8. I encouraged others to speak.
- 9. I was a good listener!

My goal for today \_\_\_\_\_

I am getting better at \_\_\_\_\_

ASSESSMENT  
Grade Student

Book being discussed: \_\_\_\_\_ Meeting # \_\_\_\_\_

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

Each discussion is worth 10 points, and each check mark indicates your contribution to your group's performance on this discussion.

Job of participant	1	2	3	4
Ask	_____	_____	_____	_____
Obey	_____	_____	_____	_____
Referred to story elements (plot, mood & settings) (blue stars)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Used the text to support and clarify points	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Made inferences beyond the text	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Encouraged others to talk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Asked relevant, meaningful questions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Referred to the author's use of literary terms (blue stars)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Read and prepared for the discussion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments and suggestions:	_____			

Instructions:

1. Prior to reading a given selection, have each member of class write down two predictions and two questions that they have concerning the upcoming selection.
2. Break class into groups or "literature circles". Within each group, each group member gets a separate job. There are between 4 -6 members in each literature circle, and each member rotates one of the following jobs throughout the project.

**Discussion Director/Facilitator:** This student is responsible for writing down 5 thought-provoking questions for the purpose of group discussion based on that day's reading assignment. As the group Facilitator, it is also this student's job to direct the group discussion, keep track of student work, and rate the group's "Habits of Work" each day the group meets.

**Literary Luminary/Alternate Facilitator:** This student is responsible for choosing parts of the story that he/she wants to read out loud to the group. The idea is to help students remember some interesting, powerful, puzzling, or important sections of the text being read. This student must decide which passages or paragraphs are worth reading aloud, and justify the reason for selecting them. Additionally, if the Discussion Director is absent, this student will serve in their place.

**Connector:** This student is responsible for finding connections between the text his/her group is reading and the outside world. This means connecting the reading to the following: his/her own life, happenings at school or in the community, similar events at other times and places, other books or stories, other writings on the same topic, or other writings by the same author.

**Character Captain:** This student is responsible for revealing specific personality traits of the character(s) within the novel. This means he/she will find examples in the assigned reading of behaviors/actions that help group members to know the character(s).

**Artful Adventurer:** This student is responsible for sharing an artistic representation of the material read. Avenues for expression may include: artwork in any medium, music, poetry, collage, music, mobile or anything else which represents an aspect of the material read.

**Vocabulary Enricher:** This student is responsible for finding especially important vocabulary in the story. Vocabulary selected should focus on words that are unfamiliar, interesting, important, repetitive, funny, puzzling, descriptive, vivid or those used in an unusual way.

3. Each student is responsible for doing his/her job in the circle, and to complete his/her job sheet.

## ***Making Connections***

*Useful for developing reading comprehension. This is one of the six essential reading strategies.*

### *Examples*

*A text-to-self connection:*

- “This story reminds me of a vacation we took to my grandfather's farm.”

*A text-to-text connection:*

- “This character has the same problem that I read about in a story last year.”

*A text-to-world connection:*

- “I saw a program on tv that talked about things described in this article.”

### *Instructions:*

*Children learning to read, or struggling readers, may move directly through a text without stopping to consider whether the text makes sense or whether their knowledge can be used to help them understand other material. Proficient readers are highly conscious of making connections between what is being read and what has been read or experienced.*

*Making Connections is a strategy that emphasizes three kinds of connections that proficient readers make as they read (Harvey and Goudvis, 2000). They are:*

- *Text-to-self: Connections that a reader makes between a piece of reading material and past personal experiences.*
- *Text-to-text: Connections that draw upon a reader's past reading experiences.*
- *Text-to-world: Connections that draw upon information from authoritative sources (peers, news, textbooks, other classes or teachers).*

*Activities which teach the strategy of Making Connections engage students in thinking about whether any of their experiences and knowledge --self, text, or world-- can be applied to what they are reading to help them better comprehend. A key phrase that prompts this strategy is "This reminds me of . . ."*

# ***Margin Notes***

*Useful for taking notes for reflecting about selected reading.*

*Example*



*Instructions:*

*Students take notes about their reading and paraphrase the material in the margins.*

# *Math Keys*

*Useful for helping children learn the reading strategy of Questioning (p 103) .*

## *Examples*

For example, a passage on "decimal notation" in a pre-algebra text states: "The decimal system of writing numbers is based on the number 10. The digits we use in the decimal system are 0, 1, 2, 3, 4, 5, 6, 7, 8, 9. Numbers written in the decimal system are said to be in decimal notation. In our system, the smallest 10 whole numbers are written with only a single digit."

This passage could be presented as follows:

Pause during the reading to say aloud, "Decimal system - I know about decimals. Decimal points are used for a part of a number, like .4, .59, or .823. But notice that the author doesn't talk about decimal points here. The author must think, we know what whole numbers and digits are, because they aren't defined here. He gives examples (0, 1, 2, etc.) for digits, and I remember that from before. I'm not clear about the statement: based on the number 10. Does that mean like four tenths, or five tenths? This part on decimal notation is not clear. I better go over that again, or ask for clarification." And so on.

## *Instructions:*

- 1. Start by having the students recognize the type of material being read – in this case, mathematics. Explanations that seem clear to mathematicians may indeed be confusing to students. Students need to be prepared to confront math text that requires careful deliberation.*
- 2. Next, the teacher should model how to read through a challenging section of text. Reproduce the pages on overhead transparency film and have students follow in their textbooks as you think aloud or have them highlight passages as you read them. Especially remind students of knowledge that the author assumes of readers, and math concepts that were previously learned.*
- 3. Point out how your think-aloud followed steps. As you elaborate on these steps, use an analogy, like reading the operating manual for a piece of equipment or instructions for assembling an item. Often, documents such as these are frustrating to read, and it is tempting to discard them and try to figure out what to do without them. But you then run the risk of making an important error that could be costly. Instead, you may need to read the material several times, consult with another person, and eventually translate the confusing information into something that you can understand.*
- 4. Finally, encourage students to compile their own definitions of key terms in a section of their notebook or on index cards. For example, the book definition of "decimal notation" - a notation in which the 10 digits are used to write numbers, with each place in the number standing for a power of 10 - can be rewritten in a more student-friendly way.*

# *Metacognition*

*Useful for getting students to “think about their thinking”.*

## *Example*

*After completing the assignment, students write down the techniques they used to prepare for the test and hypothesize how they will do. When the tests are graded and returned, students will write down how effective their efforts were and how they might want to prepare for the next unit.*

## *Instructions:*

*After doing an activity, have the students go back to their seats and write on a sticky note how this activity changed their conceptions, made them think, or might help them later.*

# *Millionaire*

*Useful for pretesting and review.*

*Example*



*Instructions:*

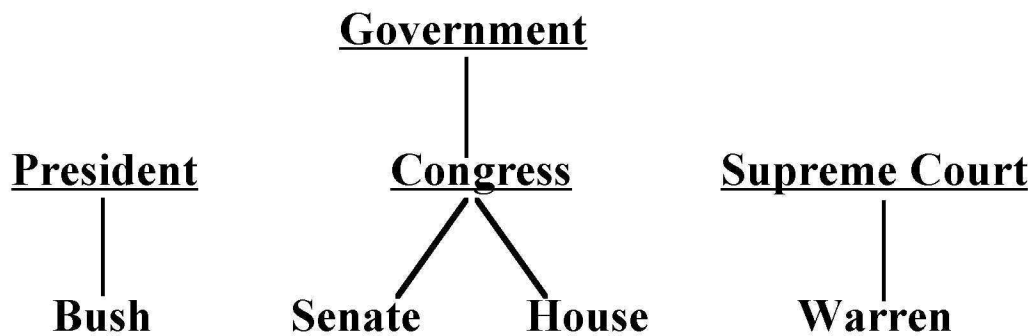
*Using a “Who Wants to be a Millionaire” format, questions covering the material being covered are presented and student groups have the opportunity to answer for points (or extra credit). It’s probably best if you don’t actually tell them that they will be getting a million dollars.*

*For templates, sounds, and artwork to this game (as well as others) visit:  
<http://www.murray.k12.ga.us/teacher/kara%20leonard/Mini%20T's/March%20Mini%20T-Games/Games.htm>*

# ***Mind Mapping***

*Useful for organizing known information.*

*Example*



*Instructions:*

*Organize mental maps from known information, then fill in missing information: main ideas, details, categories/parts, diagrams and labels.*

## *Mindstream*

*Useful for engaging all students to share their own responses to a specific question in a limited time frame. Addresses the styles of: interpersonal, intrapersonal, and verbal/linguistic learners.*

### *Example*

#### *Instructions:*

- 1. Put students in pairs.*
- 2. One student takes the role of speaker, while the other takes the role of listener.*
- 3. For the allotted time (1-3 minutes), the speaker then shares while the listener listens.*
- 4. Roles are reversed and sharing proceeds for another allotted time interval.*



# ***Mnemonic***

*Useful for improving the recall and retention of information.*

*Example*

*Every*

*Good*

*Boy*

*Does*

*Fine*

*Every Good Boy Does Fine is an acrostic to remember the order of the G-clef (treble clef) notes on sheet music.*

*Instructions:*

*Each letter of acrostic represents a target word to be remembered.*

# Multiple Intelligences (MI)

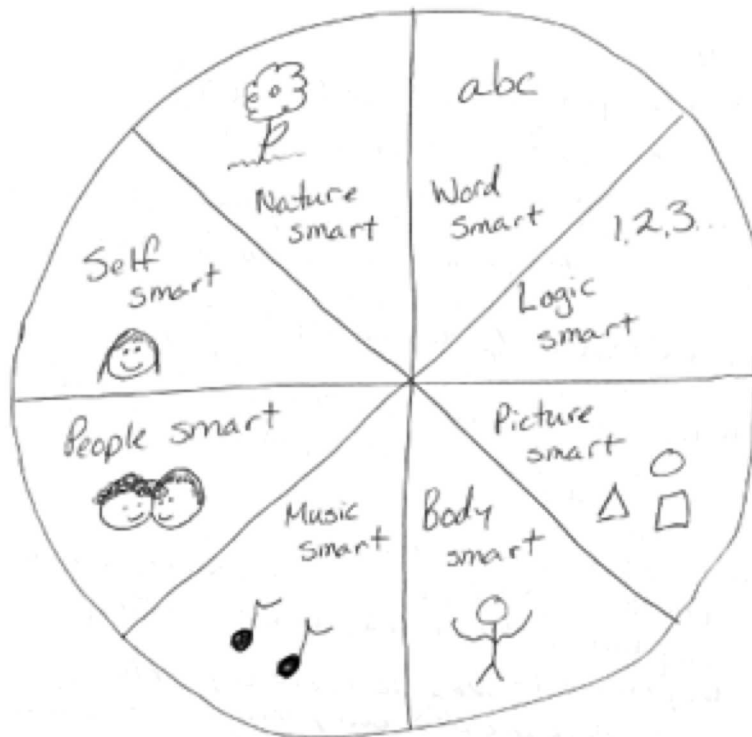
Useful for lesson planning.

Example

## Sternberg's Multiple Intelligences

Analytic "School smart"	Practical "Street smart"	Creative "Imaginative smart"
Good at... <ul style="list-style-type: none"> <li>• Making meaning of text</li> <li>• Organizing</li> <li>• Memorizing</li> <li>• Recognizing Cause &amp; Effect</li> <li>• Taking notes</li> </ul>	Learn well when they... <ul style="list-style-type: none"> <li>• see how things work in the world.</li> <li>• use ideas they've been taught.</li> <li>• solve practical application problems.</li> </ul>	Demonstrate... <ul style="list-style-type: none"> <li>• fresh new ways of solving problems.</li> <li>• thinking "outside of the box"</li> </ul>

A Multiple Intelligences Chart.



### Instructions:

Using the results from frequent assessments, a picture of each student's learning styles and preferences can be developed, and that picture can then be used in planning to better meet each student's educational needs and desires.

## *Narrative - First Person*

*Useful for getting a student to empathize with a character or as an assessment technique to ensure the originality of assigned work.*

### *Example*

**PURPOSE:** to give us a different way to think and write about the theme of "being somebody"; to share with each other our first encounter with Virginia as an environment

**LENGTH:** 250-400 words

Carrie leaves home to go to Chicago at the same age most of you left home to come to Virginia. When Carrie first gets to the big city she struggles to figure out who she can and should be in this new place, and listens eagerly when Drouet coaches her on how to "carry herself" – how to look and dress and act like "somebody."

Instead of a "how to" essay (how to Wahoo), you'll be writing a first-person narrative of your experience -- telling a brief and pointed story about some part of your first days here. But I think those essays will be at least as valuable to incoming first-years, each of whom will reenact that moment of wonder or anxiety or alienation. So we'll put the essays up online, in a website we'll create together. You'll bring drafts of the essays to class on **MONDAY, OCTOBER 1**, then you'll revise them, hand them in and send me an electronic html-tagged version on **MONDAY, OCTOBER 8**. When the sections are all done, we'll talk about how we want to organize them and display them in a site.

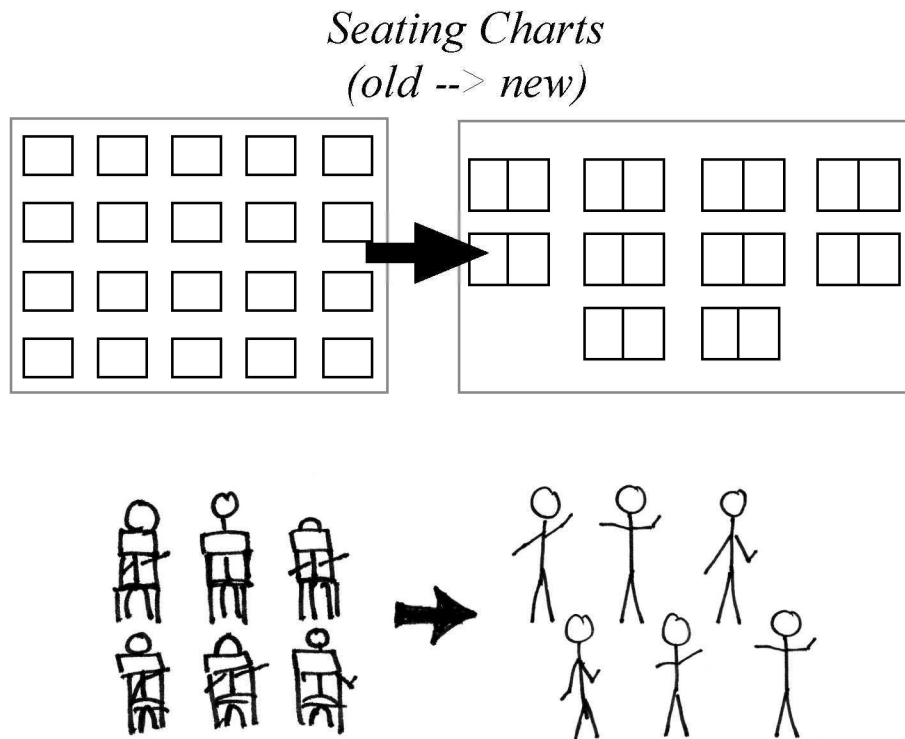
### *Instructions:*

*The first person narrative assignment could be applied to any regular assignment. By having students write in the first person it forces them to attach personal significance to whatever the topic is about (thus making the material more memorable).*

## *New Environment*

*Useful for getting students engaged with the material or establishing a hook with a change in environment. Can be used to appeal to kinesthetic learners to give them a break from sitting in one place.*

### *Example*



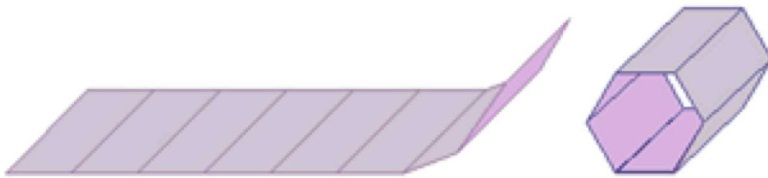
### *Instructions:*

*Have students move to different areas of the room for different activities. Or, students can simply change positions – sitting on the floor instead of at their desks, or standing up instead of sitting down. To establish a “hook”, consistently use the front of the room for math review, or have them stand up for story review, etc.*

## *Number Rollers*

*Useful for generating numbers to be used in arithmetic problems or for generating random numbers to be used in flexible groupings.*

### *Example*



### *Instructions:*

*Many teachers have struggled to create dice or number spinners so that their children could play number games. Here is a simpler way of generating numbers, simpler to make than a dice and easier to use than a spinner. It was developed in a Teachers' workshop in Pelimatalawa in Sri Lanka.*

*Take a strip of paper or thin card about 10cm long and 2cm wide or you can if you like just cut a strip from A4 paper. Fold it in half three times to create eighths. Open and roll up along the folds so that each fold is in the same direction. Now overlap two of the parts and glue to create a hexagonal prism. You may have to pinch the folds to make it approximately regular. Mark numbers on each face and you have a simple Number Roller.*

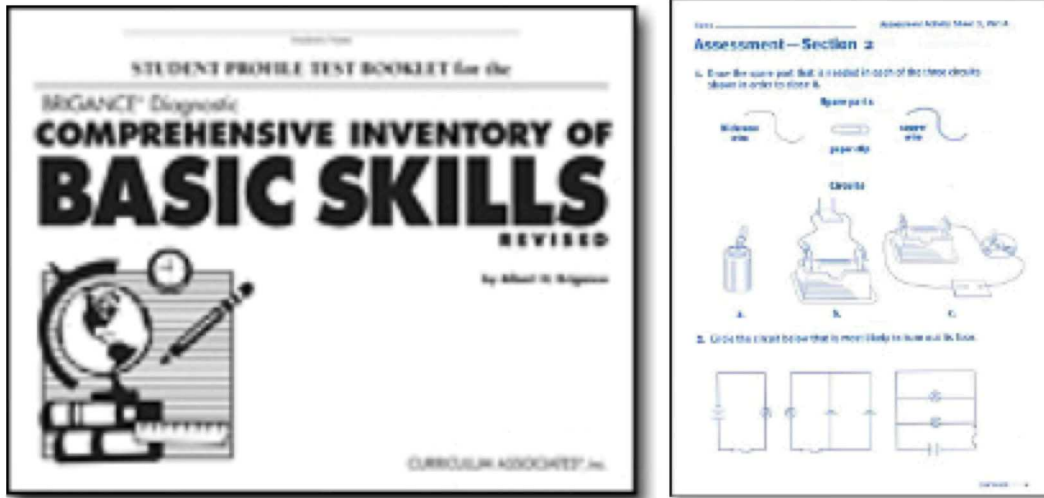
*Most number generators such as dice or spinners are meant to be fair and have an equal probability that each number will be shown. The Number Rollers described above will have a bias built in and this makes them useful when investigating probability.*

*To make the roller fair, the paper or card on each face of the roller should be of equal thickness. One way to do this is to have a double thickness everywhere. Take a longer strip and fold it into sixteenths. Then roll it up to form an octagonal prism with a complete overlap. Glue all faces inside and write numbers on each face.*

# Ongoing Assessment

*Useful for identifying the success (or lack thereof) of a lesson as well as for identifying student learning styles and judging student work.*

## Example



## Instructions:

*There are many purposes for ongoing assessments. Two of these are: personal improvement and student improvement. In a sense, these are both related, though distinctly different.*

*Personal improvement: Self-reflection and self-improvement are more easily accomplished when strategies to aid these are employed. Videotaping lessons, peer-evaluation, student comments, and staff development are but a few.*

*Student improvement: It's difficult to know what's been achieved, in absence of a knowledge of what existed. To that end, teachers (and students) monitor and track achievements. They do this with informal and formal assessments, such as: signs, tests, logs, portfolios, and performances.*



## ***One, Two, Three Analysis***

*Useful for reading a paper or for note-taking on the same subject using three different sources. Appeals to verbal/linguistic learners.*

### *Example*

*Use your knowledge of the last presidential campaign to write down whatever you can in column 1 of the One, Two, Three Analysis sheet (shown below). Then read the selection, “On the Campaign Trail”, and list notes from that reading in Column 2. And after viewing the movie Campaign, complete the third column of the sheet.*

### ***One, Two, Three Analysis***

1	2	3

### *Instructions:*

- 1. Divide a full sheet of paper to make three columns (or use a printed chart like the one shown above).*
- 2. Utilizing one source of information (student’s prior experiences, reading selection, video selection, etc.) each student should record what they know in column one.*
- 3. Use a second source of information and fill out column two.*
- 4. With the aid of a third source of information, fill out column 3.*
- 5. Once all columns are completed, each student should summarize the similarities and differences present in the three columns.*

## *One, Two, Three Frequency Scale*

*Useful for monitoring student progress on an assignment.*

### *Example*

*While working on a reading assignment, the teacher asks aloud to the class, “One, Two, Three How’re You Doing!” the students respond with a show of fingers (one, two, or three) to indicate how close to being done they are.*

### *Instructions:*

*Students should be briefed in this technique before its used.*

*It should also be modeled for them so that they use it properly.*

*A poster reminding them of the signals might also be appropriate.*

*The signals can be whatever the teacher and class agree they should be, but the title of this strategy is “one, two, three”, so “one” can be for “not nearly done”, while “three” could be for “done”.*



## ***One-Minute Paper/Discussion***

*Useful for a quick assessment or for student metacognition. This technique is useful with verbal/linguistic students (and it does*

### *Examples*

- Write for one minute all you know about plant parts.*
- Get into Pair-Groups. For one minute, tell your partner all you know about the term, **democracy**. Then switch, and have your partner tell you all he/she knows.*

### *Instructions:*

- 1. Either at the start or toward the end of class, have students get into partner groups.*
- 2. Have one partner share all that he/she knows about a given topic.*
- 3. Have the other partner share all that he/she knows about the topic.*
- 4. Spend a minute or three having each student share (in writing) their reflections on what was shared.*

## ***One-Sentence Summary***

*Useful for summarizing information or to summarize how their assignment helped them to learn (metacognition).*

*Example*

*Shrek is a movie that has one storyline for children and another storyline for adults.*

*Instructions:*

*After a reading assignment or some kind of reflection, students are asked to summarize their thoughts in one sentence. This activity works very well as a white-board activity. Another way to do this activity is to give a sticky note to each student to write the sentence.*

# Orbitals

*Useful for addressing commonalities & differences among learners.*

## Example

*Grade 6: Various Subjects*

*Sixth graders at Hand Middle School like orbital studies because they are interesting and help them be independent. Teachers also like orbitals because they help integrate the curriculum and let teachers see learners at work in their areas of strength and interest.*

*The 6th grade teachers developed a brochure on orbital studies, explaining to students and parents what an orbital study is, why it is important, and how it works. The brochure is discussed in all classes in the fall when orbitals begin. It's sent home to parents at that time as well. The brochure describes general characteristics of an orbital, such as:*

- An orbital study focuses on a topic of student interest related to some facet of the curriculum.*
- A student may work on an orbital study for three to six weeks.*
- Teachers help students develop a clear question for study, a plan for research, a method of presentation, and criteria for quality.*
- Successfully completing an orbital includes keeping a log of time spent on the study, resources used, and ideas and skills gained. It also requires that students provide a written overview of what was learned for teacher review. The student must make a 10- to 20-minute presentation to at least 5 peers, providing a 1-page handout for the audience and using a display or demonstration. The student also must develop and use a way to get peer feedback on the content and presentation.*

*Throughout the year, each teacher on the team works with individuals and small groups to help them select and focus on a topic, keep a log, find and use resource materials (including print, electronic, and human), plan and use time, measure progress against preestablished criteria for quality, make effective oral presentations, and distill key ideas for the handout. This is done through miniworkshops with small groups of students who have extra time when a task is completed and with individuals through required conferences on their orbital studies.*

*All teachers assume responsibility for helping students with planning, research, time management, and presentation, but they also serve as consultants for orbitals in their own areas of interest or expertise. For example, a math teacher may be a science fiction fan or an English teacher may know a great deal about jazz. Teachers and students alike enjoy the fact that teachers have and can share interests and skills in areas they do not teach.*

*A student invites a teacher to serve as consultant. A teacher generally will accept the invitation, unless he is already involved in a large number of consultations at the time. In that case, the teacher suggests another option from the team of teachers. Students must complete at least one successful orbital study in a year, but they are encouraged to do multiple orbitals.*

## Instructions:

*Orbital studies are three to six week independent investigations that “orbit” around some facet of the community. Students select their own topics and work with guidance and coaching from the teacher to develop more expertise on those topics as well as on the process of learning. This strategy works very well with a learning contract.*

- 1. Make an initial list of potential topics based on surveys of student interest.*
- 2. Augment the list with suggestions from peers, parents, and mentors.*
- 3. Students select the topics of their choice, either from the augmented list or for their own and then begin their studies.*

# Outlining

*Useful for organizing information as in readings, texts, reports. It is only possible to make an outline if you have familiarity with the subject (which is why some students can't write an outline until they've finished their paper.*

## *Example*

Suppose you are outlining a speech on AIDS, and there are some of the ideas you feel should be included. To put these ideas into outline form, decide first on the main encompassing ideas. These might be: I. Transmittal, II. Societal Consequences, III. Research. Next, decide where the rest of the important ideas fit in. Are they part of AIDS transmittal or AIDS societal consequences or AIDS research solutions? The complete outline might look like this:

### Major Aspects of Aids

- I. Transmittal of AIDS
  - A. Transfusions
  - B. Body fluids
    - 1. Sexual
    - 2. Non-sexual
- II. Societal Consequences of AIDS
  - A. Epidemic disease pattern
    - 1. Teenagers
    - 2. Women
    - 3. Homosexuals
  - B. AIDS babies
  - C. Increased homophobia
  - D. Overburdened health care
- III. Research Solutions to AIDS
  - A. AZT
  - B. HIV virus
  - C. Other viruses

### Major Parts of any Outline

- I. MAIN IDEA
  - A. Supporting idea to I
  - B. Supporting idea to I
    - 1. Subsidiary idea to B
    - 2. Subsidiary idea to B
      - a) Subsidiary idea to 2
      - b) Subsidiary idea to 2
- II. MAIN IDEA
  - A. Supporting idea to II
  - B. Supporting idea to II
  - C. Supporting idea to II
- III. MAIN IDEA
  - A. Supporting idea to III
  - B. Supporting idea to III
  - C. Supporting idea to III

## *Instructions:*

*An outline presents a picture of the main ideas and the subsidiary ideas of any subject. It is up to the writer to decide on how many main ideas and supporting ideas are needed to adequately describe the subject. However, if there is a I in the outline, there has to be a II; if there is an A, there has to be a B; if there is a 1, there has to be a 2, and so forth.*

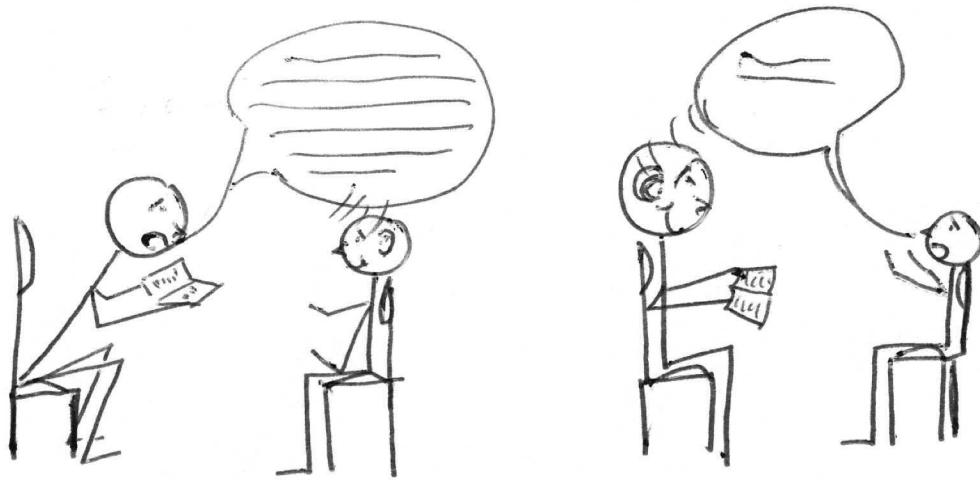
*An outline will show a basic overview and important details. Some teachers will require an outline in sentence form, or require the main points to be in chronological order, or have other specific requirements. A student's first responsibility, of course, is to follow the requirements of the particular assignment.*

Excerpted from Lloyd Sealy Library , John Jay College of Criminal Justice

## *Pair-a-phrasing*

*Useful for checking for understanding. Appeals to the kinesthetic and interpersonal learners.*

### *Example*



### *Instructions:*

- 1. Break class up into groups of 2 (one “reader”, one “listener”).*
- 2. Have one student in each group read a passage to the other member of the group.*
- 3. The “listener” then takes time to paraphrase (orally or in writing) the passage back to the “reader”.*
- 4. The roles are reversed and the next passage is read.*
- 5. The process continues until the entire reading has been completed.*

## ***Patterned Problem Solving*** DK © 2000

*Useful for developing an understanding of the interrelationships between variables in a formula. This technique helps develop the logical/mathematical learner.*

### *Example*

*From mathematics and physical science, the formula for deductive reconnaissance (dead reckoning) is distance equals rate times time. Let's solve this problem four times and make a conclusion based on the results.*

<i>speed</i>	<i>x</i>	<i>time</i>	<i>distance</i>
<i>1 mi/h</i>		<i>1 h</i>	<i>1 mi</i>
<i>2 mi/h</i>		<i>1 h</i>	<i>2 mi</i>
<i>3 mi/h</i>		<i>1 h</i>	<i>3 mi</i>
<i>3 mi/h</i>		<i>2 h</i>	<i>6 mi</i>

*With the aid of the chart above, answer the following questions:*

*Q. As the speed got bigger, what happened to distance traveled?*

*Q. Can you use this chart to say what would happen if the time was increased?*

*Q. What could you change to have the object travel a smaller distance?*

### *Instructions:*

*Direct and indirect proportions are important in design (knowing when to increase or decrease a variable can mean the difference between success or failure). Direct and indirect proportions can be easily recognized by logical/mathematical learners—but not everyone is that type of learner. To help encourage the logical/mathematical learner in all students, patterned problem solving can be used to generate data that students can judge. By using this technique regularly, students eventually 'catch on' to how formulas work and eventually outgrow the need for this.*

# Picture Notes

A CRISS Manual Technique

*Useful for creative and visual learners.*

## Example

*In small groups, students should read chapter six section one and take notes. Then, after the group shares their efforts, they should take a whiteboard and the erasable markers provided to communicate a Picture Note of the selection.*



## Instructions:

- 1. Students read a given passage assigned by the teacher.*
- 2. Students share in small groups what they've read.*
- 3. Students then work together in their small groups to compose a picture representing what they've read using the following rules:*
  - no sketching*
  - no words*
  - use color*
  - use everyone's input*
- 4. After the pictures are drawn, each small group shares their work with the class, and the work is posted in the room for all to see.*

## ***Piggy Backing***

*Useful for helping students to remember and making it possible to add to what a student knows about a subject.*

*Example*

*Instructions:*

*Often used in charting. This is a useful way for students to add to the knowledge that they have on a given topic. Students work on an assignment in groups. Each member spends one minute (or so) writing down (or talking about) what he/she knows about a topic. Then, the next person in the group takes some time to communicate what he/she knows. The process continues until everyone has shared. This is called piggybacking, because in any group there will be one student who knows a little less than the others in the group. That person can use what the others know to carry them to the point of recollection (get them started).*



# ***PMI***

*Useful for informal assessment of understanding and meaning.*

## *Example*

Fill out a PMI worksheet on one of the following questions. Then on the back of the worksheet, name and defend your final decision on the question.

1. Should drivers in congested areas be charged 25 cents per mile during peak traffic hours?
2. Should manufacturers be required to reduce the amount of packaging they use for consumer products, as a means of reducing trash?
3. Should people desiring to marry be required to pass a sophisticated compatibility test before being allowed to marry?

### **PMI Worksheet**

<b>Plus</b>	<b>Minus</b>	<b>Interesting</b>

## *Instructions:*

*Edward de Bono refines the T-Chart idea into a three part structure, which he calls PMI for plus, minus, and interesting. A ‘spin-off’ of the technique, “Listing Pros and Cons”.*

1. *A list or table with the categories Plus/Minus/Interesting should be formulated*
2. *For each reason/point in each category a score (positive/negative) is assigned. The final PMI score will be the total of the scores in each category summed together.*

# Popcorn Reading

*Useful for engaging a class during a reading, and assisting students with reading aloud. Can be stressful for shy students or if managed incorrectly when students with poor reading skills are in the same class with students with good reading skills.*

## *Example*



## *Instructions:*

*A teacher invites students to read (possibly by reading the first paragraph aloud). Then, a name is drawn at random from a jar, and whichever student's name is drawn, that student continues the reading aloud. At the end of each paragraph, (or whenever so designated), another name is drawn and the reading continues.*

*When drawing names, the student name drawn could be put back to ensure that that student had to continue paying attention, or it could be removed to help ensure everyone got a chance to read.*

*Instead of drawing names, this could be used for sight words with younger children (and easier reading). Each student is assigned a word from the reading. The teacher starts reading aloud until he/she comes across one of the student's words. Then the student with that word pops up and says the word, sits back down, and the teacher goes on reading aloud again (until the next instance).*

## ***Post-Assessment***

*Useful for monitoring student growth or the efficacy of a lesson.*

*Example*

*After completing the unit, students will demonstrate what they know by:*

**Posters**

**Story Books**

**Raps**

**Portfolios**

**Logs**

**Exams**

*Instructions:*

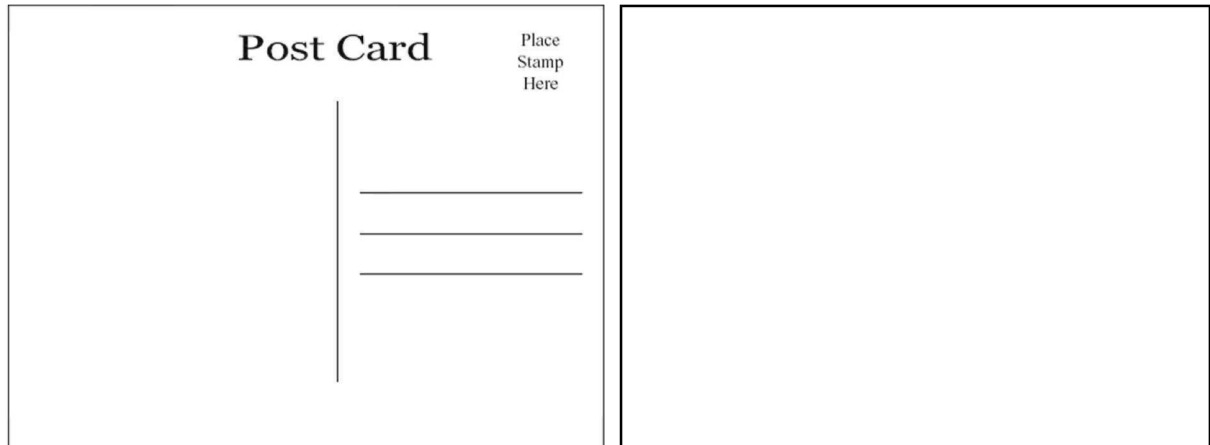
- 1. Determine the specific broad learning objectives for the academic program;*
- 2. List the kinds of student work that students might include to demonstrate mastery of the learning outcomes;*
- 3. List the specific knowledge, skills, and/or values that you might want to measure through a value-added process;*
- 4. Decide upon the type of post-assessment that you will use;*
- 5. Determine which faculty will create the post-assessment or review examples of commercially available tests for this purpose;*
- 6. Decide when and where the post-assessments will occur;*
- 7. Decide how the assessments will be evaluated and analyzed.*

# *Postcarding*

*Useful for formal assessment. This appeals to the creative*

## *Example*

*Students will create three postcards that Odysseus may have sent on his journey to someone in Ithaca. The postcards will have a front picture depicting one of Odysseus' adventures, and a back that contains Odysseus' message about the adventure to a friend or relative at home. Each postcard must be of a different place that Odysseus has traveled. Originality, style, authenticity and knowledge of the adventure, will all be graded.*



## *Instructions:*

*Assign material that students will study.*

*After they have studied their material, students will take what they've learned and present it on posterboard or 8.5" x 11" paper in what looks to be a postcard. Relevant material must be included on the card (both text and graphics). This project works best if a rubric is distributed when the assignment is given.*

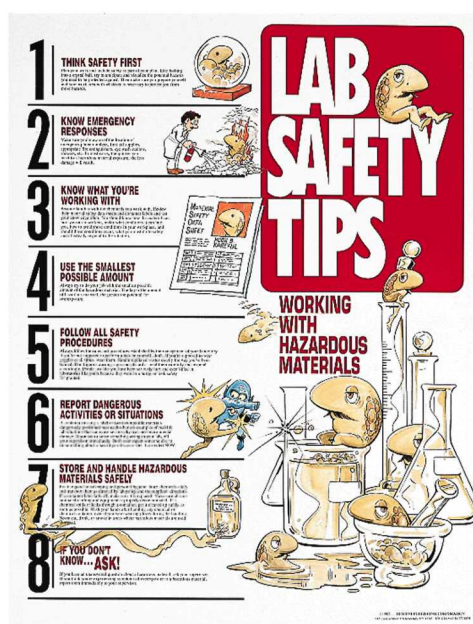
# Posting

Useful for reinforcing and giving students a visual hook. Useful for reminding students about organizational schemes, procedures, word of the day, or notable quotes. Assists the visual learner.

## Examples

In order to treat you fairly, I must treat you differently.

Quantity	Instrument
Length	Ruler
Volume	Measuring Cup Graduated Cylinder
Weight	Balance Scale



## Instructions:

Postings should be large enough (or colorful enough) to be visible from a distance, and should be separated far enough from one another to be distinct. Too many postings can become confusing. A trick for some postings is to make the posting large and distinctly colorful so that the posting itself is visible from a distance, but make the writing on the posting small and difficult to read from a distance. This allows the visual learner to use the posting as a reminder of what was covered in class, without allowing them to copy the presented information word for word.

# *Power Thinking*

*Useful for getting students to organize their thinking before writing on a given subject.*

*Example*

Animals

Dog

Labrador

Collie

Cat

Calico

Siamese

*Instructions:*

*Power Thinking is basically outlining without most of the formality.*

*Materials: Individual word/concept Cards*

*Process: Look through the provided set of cards. Identify the main idea/category which will be called the Power 1. Look through the remaining cards to find categories and subcategories (Power 2 and Power 3).*

## ***Pre-Assessment***

*Useful for identifying student learning preferences and for lesson planning.*

### ***Examples***

*Before starting a unit on sound energy, a pretest of the material is taken by each student.*

*Before a unit on English Literature, each student is required to complete a survey inventorying which major literature titles they have or have not read.*

### ***Instructions:***

*"Assessment is today's means of modifying tomorrow's instruction." Carol Ann Tomlinson*  
*Pre-assessment allows the teacher and student to discover what is already known in a specific topic or subject. It is critical to recognize prior knowledge so students can engage in questioning, formulating, thinking and theorizing in order to construct new knowledge appropriate to their level. Ongoing assessment throughout the learning process is also critical as it directs the teacher and student as to where to go next. Several assessment techniques are described below:*

***Boxing*** - On a large piece of paper, students draw a box in the center and a smaller box inside the first box. In the outside box, answer 'what do I know?', in the inside box, answer 'what do I want to learn?'. Now in the outside box, write 'what else do I know?' and 'how does it fit?' In the inside box, draw a visual representation to explain the topic. Finally, in the middle of the box, look at all the information and summarize 'what does that say?'

***Graffiti Wall*** - with colorful markers and large poster paper, have all students creatively design a Graffiti Wall of things they know about a specific topic of study. Students are then encouraged to add to the wall throughout the unit as they gain new knowledge. A colorful way to display what they know and what they have learned.

***Yes/No Cards*** - Students make a card with Yes (or Got It) on one side, No (No clue) on the opposite side. Teachers ask an introductory or review question. Students who know the answer hold up the Yes card, if they don't know the answer they hold the No card. This is very effective to use when introducing vocabulary that students need as a knowledge base for a specific unit of study.

***SA/A/D/SD*** - Students are given to opportunity to formulate their own views and opinions along a continuum rather than dialectically. Given an issue (similar to those outlined above) students are asked to consider the topic and determine whether they strongly agree (SA), agree (A), disagree (d), or strongly disagree (SD) with the statement. They are then asked to move to the appropriate station in the classroom identified with one of the options. A class discussion follows as students are given the opportunity to outline and defend their positions, refute the arguments of others as well as reevaluate their own ideas.

***Squaring Off*** - Place a card in each corner of the room with the following phrases: Dirt Road, Paved Road, Highway and Yellow Brick Road. Instruct the students to go to the corner of the room that matches where they are in the new unit of study. Students go to the corner of the room and as a group, discuss what they know about the topic.

***Turn & Talk*** - During a lesson, there may be opportunities to have the students do a turn & talk activity for a few minutes. This allows students to talk about the information presented or shared and to clarify thoughts or questions. This is an effective alternate strategy to asking questions to the whole group and having the same students responding. All students have a chance to talk in a non-threatening situation for a short period of time.



## ***Pre-Read***

*Useful for previewing a reading a selection and ensuring that students will comprehend a reading after it has been read.*

### ***Instructions:***

*This usually gets students ready to read and students usually get the gist of what is going to be read. Discussing information about the selection or assignment prior to reading must take place to ensure comprehension of the reading once it has been completed. This may take the form of class discussions, printed previews, photographs, outlines, or films. Spend enough time before the students begin the assignment to ensure understanding of it.*

### ***Vocabulary Previews:***

*Unfamiliar key words need to be taught to students before reading so that new words, background information, and comprehension can improve together. List all words in the assignment that may be important for students to understand. Arrange words to show the relationships to the learning task. Add words students probably already understand to connect relationships between what is known and the unknown. Share information with students. Verbally quiz them on the information before assigned reading begins.*

### ***Structural Organizers:***

*Before reading an assignment, basic frameworks which are included in the text should be pointed out such as cause-effect or problem-solution. It can be beneficial to call attention to specific plans of paragraph or text organization such as signal words, main idea sentences, highlighted phrases, headings and subtitles. A review of skimming techniques might also be appropriate as these various areas are covered.*

### ***A Purpose for Reading:***

*When students have a purpose for reading a selection, they find that purpose not only directs their reading towards a goal, but helps to focus their attention. Purposes may come from teacher directed questions, questions from class discussions or brainstorming, or from the individual student. Along with the question, it is a good idea to pose predictions of the outcome and problems which need to be solved. These may be generated by the student or the teacher, but the teacher should use these to guide students in the needed direction for the assigned selection.*

***Author Consideration:*** *Depending upon the content area, a discussion of the author of the particular work can be helpful to the understanding of it. What is the author trying to say? What is his point of view and his reason for writing the particular work?*

***KWL:*** *This strategy consists of three steps for students to use with expository text: What do I Know? What do I Want to learn? What did I Learn?*

*A good strategy for group discussions. Develop a three column poster with each question in a column and list out responses.*



## ***Predictions***

*Useful for assisting students with inferencing skills  
(correctly guessing results on the basis of prior knowledge).*

### *Examples*

*Given the following sequence of numbers, what could be the next number in the series (and why): 1, 3, 5, 7, 9, 11, \_\_\_\_\_ ?*

*Given what you've read so far in the whodunit book we're reading, who do you think "committed the crime" (and how did they do it)?*

### *Instructions:*

*Can often be used to start discussion and use foreshadowing.*

## ***Prior Knowledge (aka Mining)***

*Useful for preparing students to learn.  
(This technique is also known as Mining).*

### *Example*

- *Have students raise their hand if they've had a specific experience.*
- *Ask students to write briefly about what they know about a topic.*
- *Give a pretest.*

### *Instructions:*

*Many students have “gaps” in their experiences/knowledge that can make new information difficult to learn. Consider the paragraph below:*

The procedure is actually quite simple. First you arrange things into different groups. Of course one pile may be sufficient depending on how much there is to do. If you have to go somewhere else due to the lack of facilities) that is the next step; otherwise you are pretty well set. It is important not to overdo things. That is, it is better to do too few things at once than too many. In the short run this may not seem important but complications can easily arise. A mistake can be expensive as well. At first the whole procedure will seem complicated. Soon however, it will become just another facet of life. It is difficult to foresee any end to the necessity of this task in the immediate future, but then one can never tell. After the procedure is completed one arranges the materials into different groups again. Then they can be put into their appropriate places. Eventually they will be used once more and the whole cycle will then have to be repeated. However, that is a part of life. (Bransford and McCarrell 1974)

*What is the subject of the paragraph (ie. What are these instructions supposed to be helping you to do)? The answer is in the example on page 107. The point being, that even the most exquisite instructions can be confusing when gaps in prior knowledge exist.*

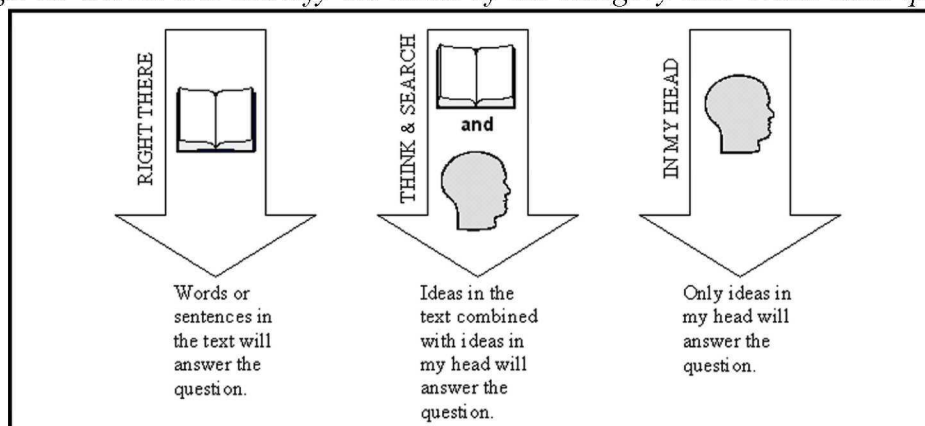
*There are many ways to mine for prior knowledge (some are shown above in the example section above). Responses can help ensure that lessons center about common experiences and fill gaps as needed.*

# QAR

Useful for monitoring of student comprehension of a reading, providing a purpose for the reading, allowing students to assess their own comprehension of the reading, encouraging elaborative and critical thinking, AND refuting common misconceptions held by students. This is an activity that can help children learn the reading strategy of Questioning (p 103) .

## Example

Following the text below are some questions that students might answer after reading the text. Use the categories shown and identify the name of the category into which each question falls.



Jeff has lived in Martinsville his entire life. But tomorrow, Jeff and his family would be moving 200 miles away to Petersburg. Jeff hated the idea of having to move. He would be leaving behind his best friend, Rick, the baseball team he had played on for the last two years, and the big oak tree in his backyard, where he liked to sit and think. And to make matters worse, he was moving on his birthday! Jeff would be thirteen tomorrow. He was going to be a teenager! He wanted to spend the day with his friends, not watching his house being packed up and put on a truck. Jeff thought that moving was a horrible way to spend his birthday. What about a party? What about spending the day with his friends? What about what he wanted? But that was just the problem. No one ever asked Jeff what he wanted.

1. *How long has Jeff lived in Martinsville? (Think and Search)*
2. *What is the name of the town where Jeff and his family are moving? (Right There)*
3. *What might Jeff do to make moving to a new town easier for him? (In my Head)*

## Instructions:

1. **Choose a text.** This strategy works well with both fiction and nonfiction.
2. **Write questions based on the text.** Your questions should fall into one of three categories (see LIP p66)
3. **Go over the questions with student before they begin reading the text.** Thinking about the questions while they are reading will provide students with a concrete purpose for reading.
4. **After students have read the text, provide explicit instruction about each of the three categories above.** You might put the information (shown in the example) on an overhead or make a handout for students.
5. **Have students answer the questions and indicate which category of information they needed to answer each.** Students can code each category instead of writing out the category name.
6. **After students have answered all questions and indicated category codes for each, discuss responses and categories as a group.** Keep in mind that sometimes the category for a response is not clear-cut. Some students may argue that the information they needed to answer a question fell in the "Think and Search" category. Other students may argue for the "In my Head" category for the same question. It is not important that there be a single correct category for every question. What is most important is that students can support their choice of category. More is learned from the discussion than from which category is ultimately decided upon. (for more info see [www.indiana.edu/~1517/QAR.htm](http://www.indiana.edu/~1517/QAR.htm) )

# Question Chips

*Useful for making sure a student attempts to seek answers in ways other than always asking the teacher.*

*Example*



*Instructions:*

*Give students a certain number of question passes (chips, ribbons, coupons, etc.) at the beginning of the day. Everytime a student wishes to ask a question, they must turn in a question pass. When the question passes are gone then so are the questions, so students must decide when they really need to spend a question pass.*

# Questioning

*Excerpted from <http://wilearns.state.wi.us>*

*Useful for better interaction with the text. This is one of the six essential reading strategies.*

## *Example*

*Some common questions asked by readers include:*

- Questions that have answers provided in the text.*
- Questions that force a reader to make connections with background knowledge and experiences.*
- Questions that force a reader to "read between the lines" and use clues provided by the author to infer an answer.*
- Questions that can be answered after discussion with others.*
- Questions that go "beyond the page" and require further investigation and research to answer.*
- Questions that signal confusion or give cues to seek clarification.*
- Questions that are open-ended and do not have set answers.*
- Questions which cause us to wonder and to speculate.*

## *Instructions:*

*Who? What? Where? When? Why? Asking questions is a normal procedure for finding out about the world, and proficient readers carry a questioning attitude into their reading. In this strategy, there are four types of question: 1) right there, 2) search and find, 3) between the author and me, & 4) just me. Questions are further leveled to reflect the depth of thinking required. Harvey and Goudvis (2000) argue that it is useful during instruction to help children learn to categorize questions. The questioning strategy involves children becoming self-questioners, as opposed to others providing comprehension questions for them to answer. Self-questioning is an attribute of independent learners, in contrast to children who read only to answer questions from a worksheet or listed by a textbook author. As a result, some children may become overly dependent on the teacher or a worksheet exercise for relevant questions that can be asked about a specific text. The questioning reading strategy emphasizes that children need to be taught how to pose good questions themselves rather than how to find answers to questions posed by others.*



## **RAFT** (a Write to Learn Strategy)

*Useful for integrating reading with writing. Can be used to assess depth of understanding.*

### *Example*

The following is a model of a writing task that uses the RAFT strategy. Tom Loftus, from Greece Athena High School, designed this RAFT for his 9<sup>th</sup> grade students to facilitate their reading of Steinbeck's, *The Pearl*.

<b>Role</b>	You will assume the role of Juana, wife of Kino in John Steinbeck's, <i>The Pearl</i> .
<b>Audience</b>	The audience is "herself."
<b>Format</b>	In reading the novel, we considered the "Song of Evil" and the "Song of the Family;" now, you are to create Juana's "Song to Herself." The format you will use is a personal journal or diary. Assume or <i>pretend</i> that Juana communicated with herself, talked things over in her head, as the action of the story played out. What was she thinking? How did it feel? What did she think her family should do? Now, how can you describe these things? When you assume the first person, the role of Juana, you will be using words to describe how you feel—you will be singing the "Song of Herself."
<b>Topic</b>	The time you will use is during the action of <i>The Pearl</i> and a speculation on what happened afterward—what did the family do after they threw the "pearl of the world" back into the ocean?
<b>The Writing Task:</b> Write a response in which you assume the role of Juana, wife of Kino in John Steinbeck's <i>The Pearl</i> . You must decide what you think she was thinking and feeling, and then describe it in detail. Use specific references to the text. You should have at least seven references to the text and at least three quotations. You must also specifically mention all four of the <i>essential questions</i> , which is cake because Juana is an indigenous female in a sexist and racist culture that was neither fair nor just because those in power—including her husband—used it over the powerless, a group of which she is a member. Your response should be at least two typed double-spaced pages in 12 point font.	

### *Instructions:*

*This is a great strategy that integrates reading and writing in a non-traditional way. It asks that students take what they have read and create a new product that illustrates their depth of understanding; it may be used with fiction or nonfiction texts. When you are first using a "RAFT" with your students, you will develop the specifics for each element in the acronym; they are as follows:*

*Role – What role will the students need to take on?*

*Audience – Who is the audience for the product?*

*Format – What type of product will they use/make?*

*Topic – The when/who/what that will be the focus of the final project.*

## ***Read-Aloud/Think-Aloud***

*Useful for developing comprehension of text that is difficult or above student reading ability. Good when introducing new topics or content, modeling reading for comprehension, or making connections to background knowledge.*

*Example (Note: The Prior Knowledge paragraph (p 102) was about Laundry.)*

*Class Period 1-Reading strategies*

- Read *Lincoln's Second Inaugural Address* using the Read Along / Think Aloud strategy with students.
- Place particular emphasis on clarifying meaning, connotative words, and historical references.
- Be sure students are annotating.

*Class Period 2-Determining the Author's Purpose*

- Students complete the Author's Purpose activity.
- Allow students to work with a partner pre-assigned by the teacher.
- Students will finish for homework if necessary.

*Class Period 3-Identifying textual evidence*

- Debrief Author's Purpose activity by conducting a whole-class discussion.
- Focus discussion around questions 1-3 and 6-8; use the overhead or chalkboard to keep a visual record of discussion points.
- As the discussion progresses, note similarity in responses, but more importantly, when students offer different responses to the same question, encourage them to support their answers with specific textual evidence.
- Move students away from the idea that there is "one right answer." Students must become accustomed to thinking, taking a stance, then supporting it with textual evidence.
- Encourage students to add to their responses on the worksheet as other students' ideas make sense to them; have them use a different color of ink so that they can see how their thinking/understanding has changed/deepened.

*Class Periods 4-6-Reading strategies, author's purpose, textual evidence*

- Repeat days 1-3 using "The Last Lesson."

*Class Period 7-Compare and contrast*

- Students complete the Venn Diagram individually.
- Students use annotated texts and Author's Purpose worksheets to compare and contrast the two pieces by completing the Venn diagram.
- Have students use three different colors of ink or highlighters on the diagram: one for the difference in *Lincoln's Second Inaugural Address*, one for the differences in "The Last Lesson," and one for the similarities in the two pieces.

*Class Period 8-Paragraph writing*

- Students construct a paragraph using one of many possibilities for student writing:
  - comparing and contrasting the two pieces overall;
  - comparing the two pieces only;
  - contrasting the two pieces only; or
  - choosing one specific criterion from the Venn diagram (such as tone or literary devices) to compare and/or contrast.

***Instructions:***

- 1. Teacher should find an article/text session and prepare comments and questions.*
- 2. When the material has been prepared and given to the students, the teacher reads to the class adding comments and asking questions to check their comprehension. Students may choose to follow along or simply listen.*

## ***Rhythm or Rhyme***

*Useful for helping recall and review. Appeals most to the auditory and kinesthetic learners.*

### *Example*

*For older students, have them listen/sing along with Listening to the World, Language/Memory Song.*

*Try to visualize it*

*Paint a picture in your mind.*

*One way is rehearsing*

*Saying it over and over again.*

*Grouping, grouping.*

*Put things together that go together.*

*For Elementary Grades:*

*Read and rehearse the rhythm and rhyme of the book, Brown Bear, Brown Bear by Eric Carle.*



### *Instructions:*

*Use rhythms to help students remember key words or concepts. May be teacher directed, but for the creative learner it is better if the students develop their own.*

*Piggyback Rhythms and Rhymes pairs terms and concept expressions to familiar rhythms and rhymes (jingles) to further aid recall and retention. Allowing students to match new terms or concepts to old tunes can make for a creative, spontaneous, fun and effective way to memorize.*



# ***Role Playing***

*Useful for meeting the learning preferences of kinesthetic, linguistic, visual/spatial, and intrapersonal learners.*

## *Example*

- Students read a chapter in a novel individually or the teacher reads aloud to the class. Volunteers act out that portion of the story.*
- Students work in small groups (Jigsaw Approach) to create a short drama to teach the class about one aspect of pioneer life.*

## *Instructions:*

- 1. Teachers need to decide how formal/informal to make the activity and whether the activity will be used for assessment purposes.*
- 2. Teachers need to decide if students will work individually or in groups, whether groups will be assigned to roles by the teacher or assignments made within the group.*
- 3. Teachers also need to decide and share the parameters of the role playing that the students will be held to.*
- 4. Props and costumes are optional.*

# Say-Mean-Matter

*Sandra Krist, Literacy Coach, with thanks to Robin Winston and David Doty*

Useful for developing critical reading skills. **Say-Mean-Matter** helps students question the text, search for deeper meanings, and make connections between text and their lives. It can be used with academic texts, with fiction, and with nonverbal material as well.

## Examples

Use a “Quote of the Day” and have students quickly practice the strategy with you, then leading them to work in partners and eventually on their own. This is especially effective when introducing the strategy. Do 10 minutes for a daily warm-up for several days.

For novels, students can keep a Say-Mean-Matter journal for each chapter. The teacher can also select sections of the novel to work with. When students complete their reading of the novel, they will have information to draw on for any final writing or project.

## Instructions:

The strategy uses a three-column chart (shown below) that is presented to the students. **SAY**, **MEAN**, and **MATTER** are the 3 column titles on the chart. When initially teaching the strategy, explain what each means using age-appropriate directions and suggestions.

Say	Mean	Matter
What does the text say?	What does the author mean?	Why does it matter to me or others?
What happened?	How do I interpret this?	Why is this important?
Cite text (quotation) or paraphrase.	Read “between the lines.”	What is the significance? What are the implications?

1. First, elicit from the students what the text says, what words are actually used, or if a cartoon, what the drawing illustrates. Students may also paraphrase the language. The text should be “right there.” When filling in the chart, it is helpful to number the responses.
2. For each item on the SAY list, ask the students what they believe the statement means. As these are suggested, write them in the second column, discussing them along the way. Ask questions (e.g. “Why do you think that?” “How do you know?”)
3. The third column is the most abstract and may prove to be difficult at first. Ask: “So what?” “What is the theme of the piece?” “How does this piece connect to your own life?” “What does it matter to you?” Or, “What questions does this piece raise?” “What implications does it hold for a given group, or for people in general?” In this column you find the meaning and depth of the piece.
4. Once students learn how the three columns are used to understand a cartoon or short piece of text, a next step might be to have the class generate a paragraph to explain or analyze the piece. Use the ideas recorded on the chart to create the paragraph.

The teacher should model initial steps of the writing;  
then students can complete it independently or with a partner.

# *Sequencing Grid (with Juicy Details!)*

*Useful for summarizing the parts of a story.*

## *Example*

*Use arrows to show direction for retelling or for writing a summary.*

1	2	3	4
<ul style="list-style-type: none"> <li>• 1st event (beginning)</li> <li>• do first</li> </ul>	<ul style="list-style-type: none"> <li>• Middle event</li> </ul>	<ul style="list-style-type: none"> <li>• Middle event</li> </ul>	<ul style="list-style-type: none"> <li>• Ending</li> <li>• do second</li> </ul>
<p><i>Juicy Detail</i></p> <ul style="list-style-type: none"> <li>• keypoint</li> <li>• Extend 1</li> </ul>	<p><i>Juicy Detail</i></p> <ul style="list-style-type: none"> <li>• keypoint</li> <li>• Extend 2</li> </ul>	<p><i>Juicy Detail</i></p> <ul style="list-style-type: none"> <li>• keypoint</li> <li>• Extend 3</li> </ul>	<p><i>Juicy Detail</i></p> <ul style="list-style-type: none"> <li>• keypoint</li> <li>• Extend 4</li> </ul>

## *Instructions:*

- 1. Fill in the Event 1 (Beginning).*
- 2. Fill in the Event 4 (Ending)*
- 3. Fill in events 2 and 3 (Middle)*
- 4. Write extensions for each event (the Juicy Details!).*

# SFA (Semantic Feature Analysis)

A CRISS Manual Technique

Useful for linking key vocabulary to major ideas from a content selection.

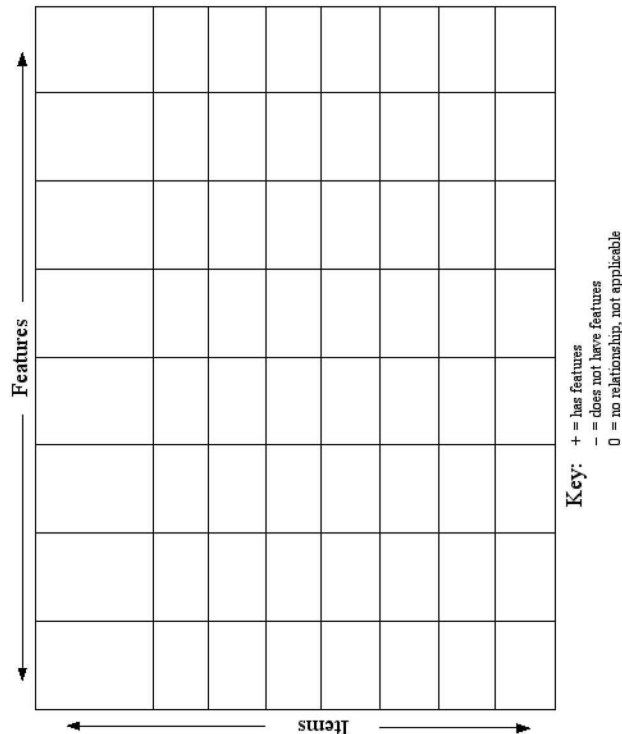
## Example

Investigate the types of governments, economies, and population of the following countries: USA, China, Russia, Japan, Australia, Taiwan, Philippines, Indonesia

## Instructions:

*Semantic Feature Analysis is a technique that can help you sort out the similarities and differences among a group of events, people, objects or ideas. Semantic Feature Analysis uses a grid (shown below) to help you explore how one set of things is related to another. By analyzing the grid you'll be able to more easily see connections, make predictions and master important concepts. You'll also realize things that you don't know yet, so you'll know what additional research you need to do.*

1. Identify the general topic to be analyzed.
2. Make a list of typical examples or ideas related to the topic. From this point on, we'll refer to these as the "elements" to be analyzed.
3. On an overhead transparency, chalkboard, sheet of paper, or within a computer program begin a sample chart. Put five to 10 of the elements in your list across the top row of the chart.
4. Make a list in the leftmost column of the grid some features or characteristics that some of the elements might have.
5. Look at the cells in the grid and ask yourself, does this element have this feature? If the answer is yes, put a "+" sign in the grid. If the answer is no, put a "-". If you don't know, leave it blank.



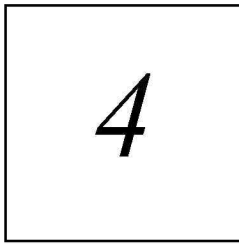
6. As you work your way through the grid, ideas will occur to you about additional elements or features to add. Keep adding them as long as they seem to add to your understanding of the topic.
7. When the grid is completed to your satisfaction, it's time to take a look at it and see what patterns emerge. Ask yourself...
  - Which columns are similar to each other? What features do the elements in these columns have in common? Is there a name for the grouping of these elements? Could you make one up?
  - Which rows are similar to each other? What elements are tagged in the same way in those rows? What does this similarity tell you about these features?
  - Which cells are still blank? Where can I go to find the information I'll need to complete those cells?
8. When you've completed this first look at your grid, write up a summary of what you've learned. Your summary should answer the questions listed above.

# *Shape Up!*

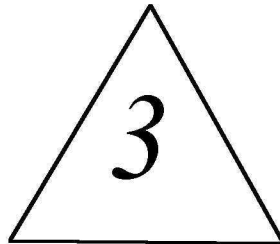
*Useful for ongoing assessment of student comprehension. Can be used as an exit ticket or to help in chunking.*

## *Example*

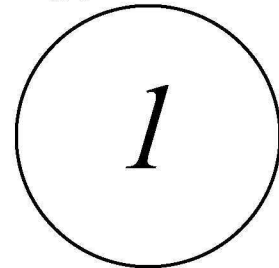
*After completing today's lesson, write out answers to the following: Name 4 things you now understand, name 3 things you'd expect to see on the next test, and one item that is still giving you troubles*



*Things that  
square with me  
"I understand"*



*Things that  
are important  
"Test items"*



*Something still going  
going around in my head  
"I'm confused"*

## *Instructions:*

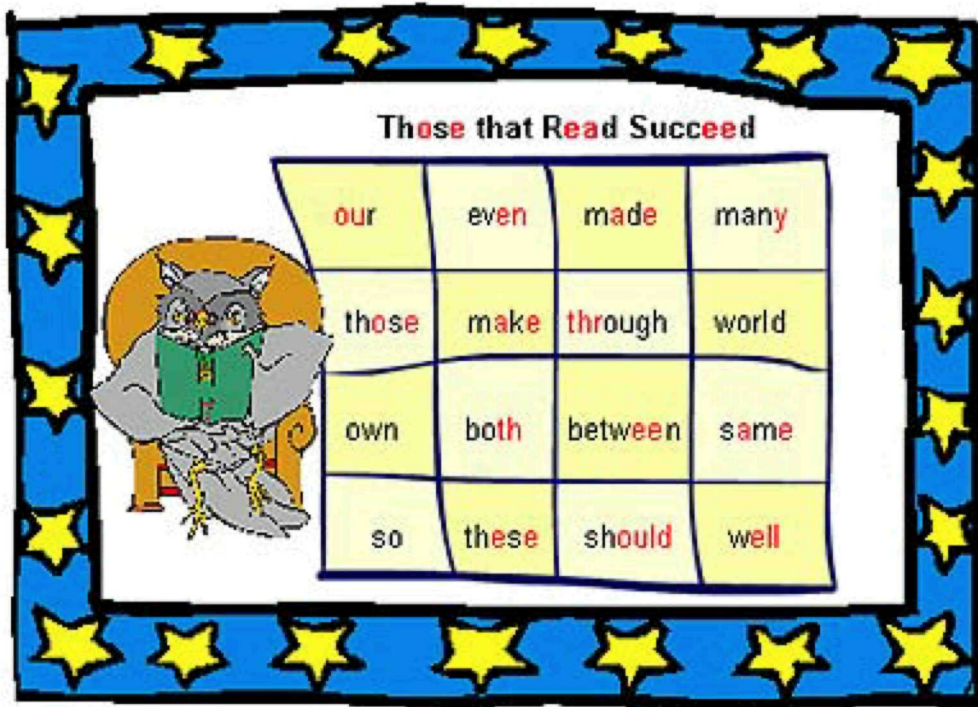
- 1. With a poster and some modeling the Shape Up! strategy is introduced by the teacher to the class.*
- 2. From time to time use this strategy to assess student understanding and to help guide further instruction.*
- 3. Students may simply write their answers on a blank sheet of paper (folded in three), or on special forms you've prepared beforehand.*

# *Sight Words*

*Useful for reading. Best for visual learners having to deal with high frequency words or words that do not follow normal spelling/phonetic patterns.*

*Example*

*Sight word Bingo*



*Available at: <http://www.adrianbruce.com/reading/bingo/>*

*Instructions:*

*Some words that work well with this strategy are: said, what, the.*

# SMART

Excerpted from <http://wilearns.state.wi.us>

*This is an activity that can help children learn the reading strategy of Questioning (p 103).*

## *Example*

*Effective readers carry on an internal monologue while they read. It is as if effective readers operate with a split personality. One personality is hard at work with the cognitive activities such as selecting what's important in that chapter, organizing this information in conjunction with what is already known, and preparing to answer a series of questions on the material. It is this personality that gets most of our attention as teachers. But it is a second personality that separates effective from less effective readers. This second personality works in the background, directing and evaluating all those cognitive activities needed to successfully learn. This personality represents that "inner voice" that issues commands during reading: "Slow down! This is pretty tough going!" "Hold it here! This doesn't make any sense. Better reread." or "This stuff doesn't look very important. I'll just skim quickly over it and get into the next section." Effective learners talk to themselves.*

## *Instructions:*

*SMART triggers students to think about how their reading is proceeding. SMART is an acronym for a Self-Monitoring Approach to Reading and Thinking. SMART is based on the premise that successful reading begins with the reader recognizing what he/she did and did not understand from a passage and involves the following steps:*

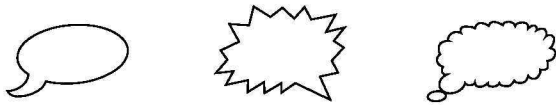
- 1. **Read.** Read a section of the text. With a pencil lightly place a "v" next to each paragraph that you understand. Place a "?" next to each paragraph with something you don't get.*
- 2. **Self-Translate.** At the end of each section, stop and explain to yourself what you read, in your own words. You can look back at the text as you go over the material.*
- 3. **Troubleshoot.** Go back to each "?" you have made. Try to see if you can now make sense of this paragraph.
  - **Reread** the trouble spot to see if it now makes sense. If it still does not make sense:
  - **Pinpoint** the problem by figuring out why you are having trouble:
  - *Is it a difficult word or unfamiliar vocabulary?*
  - *Is it a difficult sentence or confusing language?*
  - *Is it about things you know very little about?*
  - **Try a Fix-Up Strategy.**
  - *Use the Glossary or some other Vocabulary Aid.*
  - *Look over the Pictures or other Graphics.*
  - *Examine other parts of the chapter ( Summary, Review Section, Diagrams, Features)*
  - **Explain** to yourself exactly what you do not understand or are confused about.
  - **Get Help.** Ask the teacher or a classmate.*



## ***Speech Bubbles (aka Thought Bubbles)***

*Useful for assessment and development of skills in clear oral, artistic, written, and nonverbal forms of communication.*

### *Example*



*Show a picture of a person from a magazine or book. What do you think this person might be saying or thinking? Students will construct speech or thought bubbles for either the brother or the sister of My Rotten, Red-Headed, Older Brother. After speech bubbles are constructed, students will exchange bubbles and act out the character it fits. As students guess the character being represented, place the speech bubble by the right character on a T-chart.*

### *Instructions:*

- 1. Show students how to construct a speech bubble using a 2x2 sticky note. Draw three small, stacked circles coming up from one corner, then pull the speech bubble out to the edges of the note. Write something the character might say or think in the bubble and stick it next to the character's head in the book.*
- 2. Students will create their own speech/thought bubble for either the brother or the sister from My Rotten, Red-Headed, Older Brother.*
- 3. Students will exchange speech bubbles and then act out the character and place it under the appropriate column on the T-chart.*




# SQ3R Charting

Acronym coined by F. P. Robinson, 1946, in a book entitled *Effective Study*.

Useful for processing and remembering what has been read.

To produce charts like the one below go to [http://www.teach-nology.com/web\\_tools/graphic\\_org/sq3r/](http://www.teach-nology.com/web_tools/graphic_org/sq3r/)

## Example

REVIEW	RECITE	READ	QUESTION	SURVEY	 Assignment:
					Class _____ Due Date _____ Amount of time spent _____
					Class _____ Due Date _____ Amount of time spent _____
					Class _____ Due Date _____ Amount of time spent _____
					Class _____ Due Date _____ Amount of time spent _____
					Class _____ Due Date _____ Amount of time spent _____
					Class _____ Due Date _____ Amount of time spent _____
					Class _____ Due Date _____ Amount of time spent _____
					Class _____ Due Date _____ Amount of time spent _____
					Class _____ Due Date _____ Amount of time spent _____
					Class _____ Due Date _____ Amount of time spent _____

## Instructions:

### SURVEY

- Review the reading assignment.
- Read titles /subtitles.
- Notice words/ phrases in italics or boldface type.
- Skim illustrations, charts, graphs and other visual devices.
- Determine the general idea of the overall content.
- Focus on main ideas.
- Read the final summary paragraph.
- Read any questions at the end of the chapter/ selection.

### QUESTION

- Turn main/sub topics in boldface type into questions (use who, what, when, where or why).
- Determine your reading rate and the number of times to read the selection.
- Take any unanswered questions to class after completing the reading assignment.

### READ

- Actively read to answer the questions - become involved.
- Get details and supporting examples.
- Highlight, underline or write important facts after reading one section (study guides and mind maps are particularly helpful).
- Note sequence/order, if important.
- Visualize as you read - make it real.

### RECITE

- At the end of each section, stop to silently or orally answer original questions.
- For long-term understanding, recite aloud.
- Use your own words.
- Jot down cue phrases.
- Quiz yourself immediately on what you've just studied.

### REVIEW

- If you cannot recite main ideas/ details of each section, reread it.
- Relate one section of the reading assignment to another to develop a whole picture.
- Write a summary, including main ideas (construct a mind map or other graphic organizer).
- Make a study guide/sheet.
- Review again within 24 hours, then again within 72 hours, and twice more within the week.

# ***SQUIRT (aka DEAR , DIRT, SSR, USSR )***

*Useful for developing independent readers. Can be very uncomfortable for kinesthetic learners (or children with ADHD).*

## ***Examples***

*In some schools, individual teachers include sustained silent reading as part of their programs. In other schools, SSR has been adopted schoolwide. In many schools a special time is set aside each day when every student (and every teacher and staff person, including the principal and the custodian!) is expected to "drop everything" and read silently. Indeed, the main thrust behind most SSR programs is to demonstrate to students that pleasure-reading is something to be valued by all.*

*In some classrooms, students select from a predetermined reading list. Or they select from a bin of books color-coded to indicate reading level. But most teachers give students the freedom to choose a book that they think they'll enjoy. Often teachers encourage students to select books that aren't too difficult. Many teachers train students in the "five-finger test" as a method of determining readability.*

*In the five-finger test, students are asked to select a page from the book to read to themselves. They hold up all five fingers on one hand as they begin to read. Each time the student encounters a word that is hard to read, her or she puts down one finger. If all five fingers are in the down position before a student finishes reading the page, the book is probably too difficult. The student probably should put the book back on the shelf and look for one that won't be so hard.*

## ***Instructions:***

*Some people call it Sustained Silent Reading, or SSR for short. Others call it recreational reading or independent reading. Some have clever acronyms for it, such as DIRT (daily independent reading time) or DEAR (drop everything and read). Whatever it's called, many teachers set aside a block of time each day -- usually anywhere from ten to thirty minutes, depending on the grade level and the ability of the students -- for quiet reading. Sustained silent reading can serve many purposes:*

- Most school reading is assigned reading. SSR offers students an opportunity to read material of their own choice.*
- During SSR time, many students learn that they can use their word attack skills to figure out new words -- on their own!*
- SSR can build students' confidence in the ability to work through reading troubles.*
- Many studies of whole-class groups and of select groups of unmotivated readers show that SSR can result in students wanting to reading more.*
- The amount of time that students spend reading independently outside of school often increases as a result of SSR, parents report. Often children ask for books to read at home.*
- SSR can be one more element in a reading program aimed at demonstrating the joy that reading can bring and developing lifelong readers and learners.*

*Most experts agree that one thing is essential to SSR's success. It is crucial that teachers participate in the process as role models. SSR time is not a time for teachers to correct papers or plan the next day's lessons. Teachers should be right there on the floor (or in another comfortable spot) -- modeling a lifelong love of reading. If the teacher models, the students will follow!*

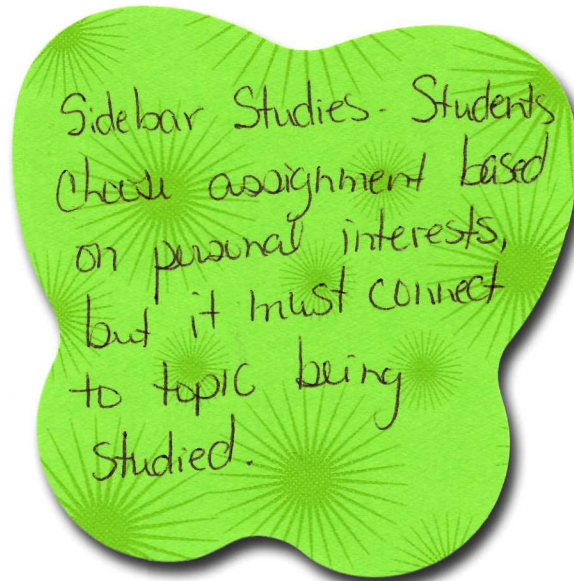
***National DEAR day is April 12. For more see <http://www.readingrockets.org/calendar/dear#resources>***

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## ***Sticky Notes***

*Useful for note taking, organizing, and summarizing.*

*Example*



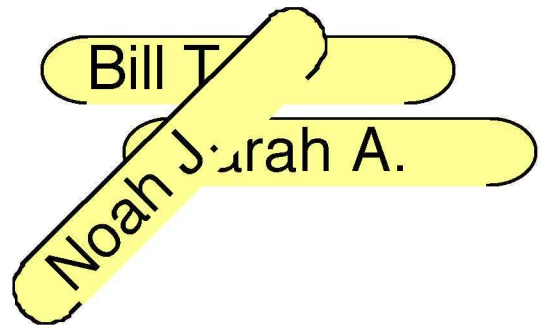
*Instructions:*

*Sticky notes are wonderful for many things. They can be used in textbooks or novels for note taking and/or comments. They can be used to write one sentence summaries after an assignment. They can be used for personal brainstorming lists, pair-share work, etc.*

## Talking Sticks

*Useful for engagement. Sometimes there are students who dominate the class – they have to answer every question. Sometimes there are students who sit back and watch whatever show is going on – either too shy, too lazy, or too unprepared.*

### Examples



### Instructions:

*In small groups, a talking stick can be used as the indians used them – he whoever so holdeth the stick haveth the floor to speak.*

*A teacher can also use talking sticks to ensure everyone has a turn at speaking. The teacher can write the name of each student in the class on separate tongue depressors – one stick for each student. Then the sticks can be placed in an empty frozen orange juice can and drawn out one at a time to identify who will speak next. If a teacher wants to ensure that everyone has a turn, the stick for the student chosen can be set aside until all sticks have been drawn. If the teacher wants to keep students on their toes, the stick can be returned to the juice can potentially to be drawn again.*

## ***TAPS (Total Group, Alone, Partner, Small)***

*Useful for instructional planning. TAPS is a mnemonic for the four different types of flexible groupings that students can be divided into.*

*Example*

***Total Group***

***Alone***

***Partner***

***Small Group***

*Instructions:*

*Students should get to work in each of the TAPS arrangements during the year, and the teacher should monitor how each student manages each arrangement for future groupings purposes.*



# Task Cards

*Useful for tiering instruction.*

## *Example*

- *One of the keys to effectively using the Internet in the classroom is to direct student learning. It is too easy to get lost, overwhelmed or side tracked. Task Cards can direct students' learning while on the Internet and they are easy to create.*

*Objective:* Learn more about the state rock of Utah

### **The Utah State Rock**

Go to the bookmark:  
"Utah's State Symbols"

or

<http://www.state.ut.us/about/rock.html>

1. What is Utah's official state rock?
2. Briefly describe how this rock is formed.
3. In how many of Utah's 29 counties is our official rock found?
4. Which 2 of Utah's counties have the greatest amounts of this rock?

## *Instructions:*

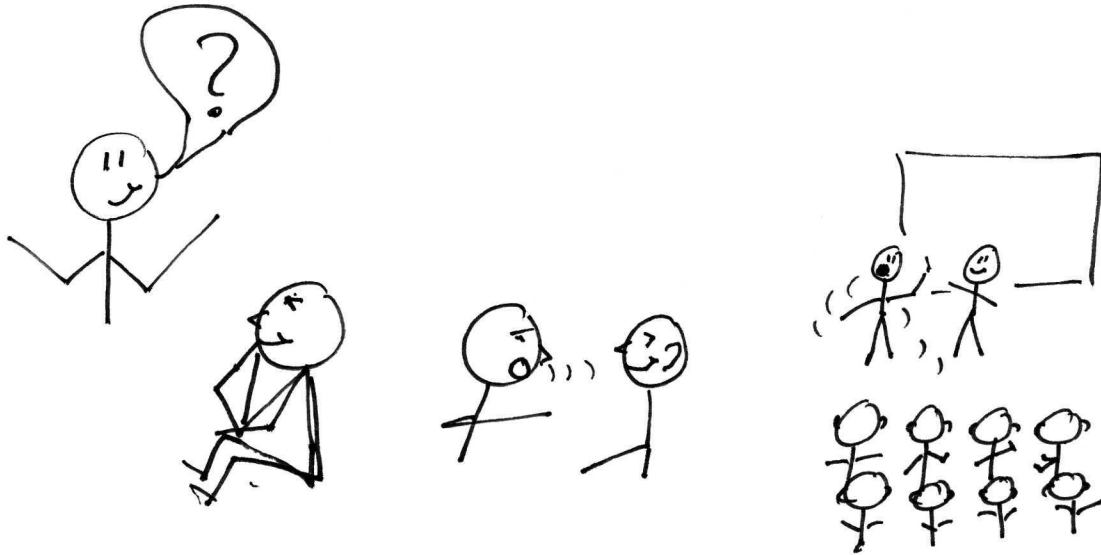
*Task Cards are easy to make and extremely effective resources for tactical students at all levels. Begin by listing exactly what you want your students to learn about a specific topic, concept or skill. Then translate your list into either questions or answers. Use this list to create your task cards.*

1. *Cut colored tagboard into three by twelve inch rectangles.*
2. *On the left side in large easy to read letters print one of the words from your list.*
3. *On the right side print the corresponding derivation of the word.*
4. *Laminate if you want to use them over and over in your classroom.*
5. *Cut each rectangle into two parts using different lines, curves, and indentations to create a puzzle effect.*
6. *Package them with the title included.*
7. *Variations include having students create their own task cards using vocabulary or concepts from their text. You can also use pictures on one side of the task card and words on the other.*

# *Think – Pair – Share*

*Useful for building wait time for those who need it. It allows students to verify and add to their first thoughts (piggyback). Works well in conjunction with brainstorming techniques.*

## *Example*



## *Instructions:*

- 1. The teacher or a student poses a question (or the student picks a topic from a given list of topics).*
- 2. The student thinks (ponders) what he or she knows about the question or topic. (These ideas may chose to be recorded in writing if desired).*
- 3. The student is paired with another student and each takes turns being a good speaker and a good listener. (Each student may be asked to paraphrase the other student in a short written paragraph).*
- 4. When all pairs have shared, then a short group discussion may take place to summarize each pair's findings.*

## *Three Facts and a Fib*

*Useful for ways to mix and mingle students, to review material prior to an assessment, or for assessment of concept understanding. This strategy appeals to the creative student as well as the interpersonal and logical learners.*

### *Example*

*Dolphins are mammals.*

*Dolphins cannot live in captivity.*

*Dolphins have ways to communicate with other dolphins.*

*Dolphins can sleep underwater for short periods of time.*

*The statements above represent three facts and a fib. Which one is the fib?*

### *Instructions:*

- 1. Give a note card to each student.*
- 2. On the card, have each student write three facts and a fib about a specific topic (mixing them so as to make it hard to “guess” which is which). Students should put the solution on the other side. (This is a good time to practice true/false strategies with clue words like “only”, “always”, etc.).*
- 3. Collect the cards and then share selected cards with the group seeing if they can determine which are the facts and which are the fibs.*



## *Three-Time Rule*

*Useful for classroom management - a way to keep things moving.*

### *Example*

*Johnny loves Spiderman. He's seen all the movies, has all the comic books, and even sleeps each night in Spiderman pajamas autographed by Stan Lee. Johnny is 31 years old and has passed his love of Spiderman on to his son Billy. Today Billy is in your class, and you use the Three-Time Rule on a regular basis. Good thing too because today's reading topic is (as if you didn't know) Spiderman.*

*While introducing the reading, Billy raises his hand and interrupts with, "I really, really like Spiderman!"*

*You smile and tell Billy how lucky it is for him today because that is what the topic is. Billy raises his hand and interrupts again -- this time with,*

*"Spiderman's superpowers are soooo awesome!"*

*You continue smiling and as you continue, you remind Billy by showing two fingers that he has used two of his three comments. Billy goes on and says, "I wish I could be like Spiderman because ...". Billy explains how his Dad is really into Spiderman and that if he were more like Spiderman his Dad would like him more. Seeing a teachable moment, you let Billy know that as cool as Spiderman is, he's no match for the Billinator. However, we've got this lesson to get through so this would be a great time for Billy to start thinking about the poster project that will be coming up soon. Billy should start thinking about what he will put on that poster and when we finish this lesson he can get started on his poster. Meanwhile it would be best not to give away anymore hints about what might be on the poster before it's finished.*

### *Instructions:*

*Introduce the Three-Time Rule concept along with reasons why it will be used.*

*Provide visuals in the room that remind students of the Three-Time Rule.*

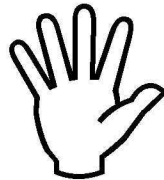
*Provide signals or cues to the student to make it clear that they are approaching (or have reached) the Three-Time Rule limit. Have at the ready a decided-upon-before-hand consequence for Three-Time Rule violators that is fair, effective, and takes into account the individual needs of the students.*

# *Thumbing*

*Useful for pre- and ongoing assessment.*

*Example*

*Thumbing:*



*Instructions:*

*Students can make gestures or notations to indicate their choice to directed questions. The responses to those questions can provide immediate feedback to guide the student in future responses. The responses to the questions can also be used by the teacher to: guide further questioning, guide further instruction, or provide information for the gradebook.*

# ***Tic-Tac-Toeing***

*Useful for any class where you wish to offer a choice to students.  
Great for meeting a variety of student learning patterns.*

## *Example*

*Tic-Tac-Toe - Fantasy Unit*

<i>Make a fact/fantasy 2 column chart</i>	<i>Create a puppet show to tell your story</i>	<i>Create a jingle, song, or rap</i>
<i>Create a picture flip book</i>	<i>Complete a story plans activity sheet</i>	<i>Act out your story</i>
<i>Write a postcard or letter home about what happened in the story</i>	<i>Create a sequence of events timeline</i>	<i>Make a setting map of your story</i>

## *Instructions:*

*Students use a tic-tac-toeing chart (like the one above) to choose three tasks. Additional requirements such as, “they have to be in a row”, or “they must pass through the center” can ensure that all class members participate in certain specific activities.*

# Tiering

*Useful for instructional planning to meet students varied needs.*

## *Example*

*Tiering is a planning strategy for mixed ability classrooms that allows the teacher the opportunity to make slight adjustments within in same lesson or unit for different learners. It also allows teachers to respond to small groups of students without planning individual lessons for every student and it allows all students to learn the same skills and concepts but with different approaches.*

Student Characteristic	Approach
Readiness to Learn CONTENT PROCESS PRODUCT	EXAMPLES: <ul style="list-style-type: none"> <li>• Different Texts, Taped Materials, Organizers</li> <li>• Vary pace, scaffolding, teacher support</li> <li>• Rubrics varied, and product option</li> </ul>
Interest in learning CONTENT PROCESS PRODUCT	EXAMPLES: <ul style="list-style-type: none"> <li>• Build curriculum from kids' questions; KWL</li> <li>• Jigsaw topics by interests</li> <li>• Range of formats for final work; choice</li> </ul>
Approach to Learn CONTENT PROCESS PRODUCT	EXAMPLES: <ul style="list-style-type: none"> <li>• Modalities varied, Multiple Intelligences applied</li> <li>• Independent and Collaborative work</li> <li>• Provide many choices for showing work</li> </ul>

## *Instructions:*

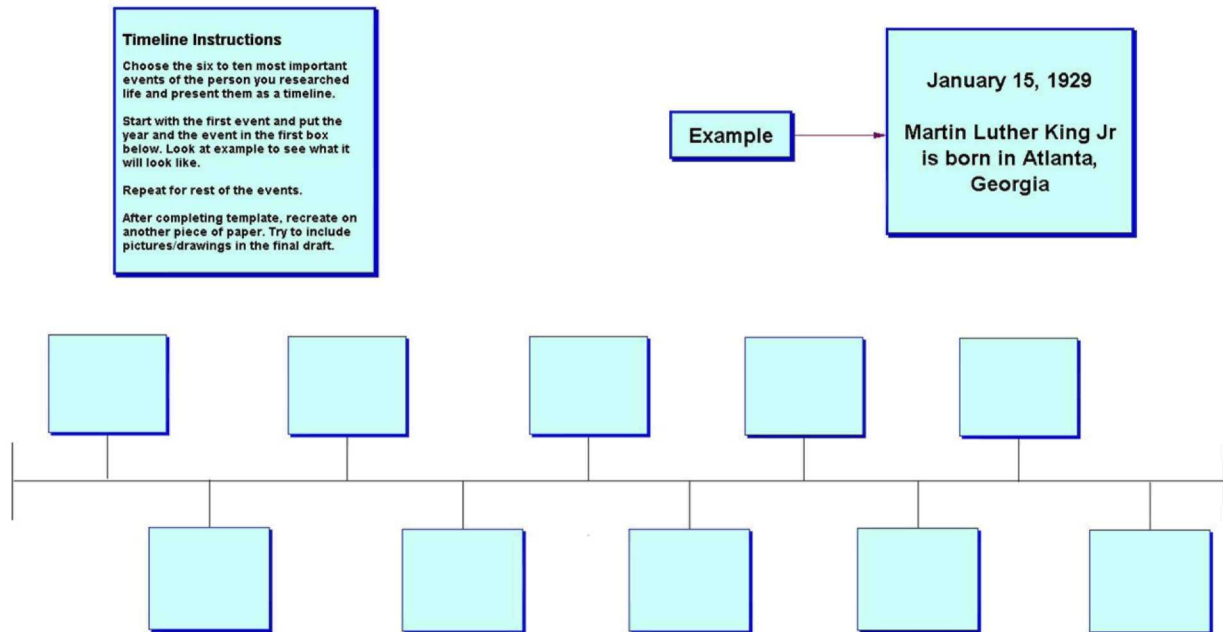
1. *Identify the key concepts & understandings of the lesson or unit.*
  2. *Think about and preassess your students in regards to their readiness, interests, or learning profiles*
  3. *Identify the the student characteristics you will use to cluster the students into instructional groups: readiness, interest, or learning profile*
  4. *Select the lesson element you will vary in the tiered lesson:*
    - *content: what you are teaching and how you give students access to the key concepts and skills (consider challenge level, complexity, resources, outcome)*
    - *process: the strategies you use to teach*
    - *product: the way students show you what they have learned*
- 'Create variations on your basic lesson for each cluster of students, varying the element you selected in the previous step.*

# Timelining

*Useful for organizing information. Appeals to the visual learner.*

*Example*

## Timeline Template



*Instructions:*

*Timelines, by letting us see what was happening when, can reveal relationships between events that would be tangled or lost in a narrative description. Timelining has many applications for understanding historical perspectives, including personal history. It can be used to clarify the sequence of events in literature and in scientific and mathematical processes. Some people have used timelines as templates to structure reports and case histories; others have used them to map out expectations for implementation of a large project.*

- 1. Enter the dates on cards (or into the computer).*
- 2. Rearrange the cards as needed (or let the computer sort the data)*
- 3. Transfer the information on the cards to a timeline (or print out the computer's timeline).*
- 4. Write a short paragraph about the insights obtained from the timeline.*

# *Timers*

*Useful for maintaining the pace of the class.*

*Example*



*Instructions:*

*A simple timer can be used to manage time on decision-making tasks. Use a three-minute setting for Think-Pair-Share discussions. A two-minute setting is appropriate for the Two-Minute chat. Or, use a one minute setting for one-minute paragraph writing. Certainly a fancy timer is not required. Humming the Jeopardy song can establish 30 seconds or 60 seconds (depending on which version you hum) for example.*



## Two-Column Notes

Useful for keeping track of main points of a reading, lecture, or presentation.

### Example

Science	Math
<ul style="list-style-type: none"><li>• sedimentary rock</li><li>• igneous rock</li></ul>	<ul style="list-style-type: none"><li>- wind/water erosion</li><li>- sediments (bits of earth) washed downstream</li><li>- land at bottom of rivers, lakes, &amp; oceans</li><li>- pressed layers turn into rock after many years</li><li>- fire rock</li><li>- formed underground by magma cooling</li><li>- formed above ground when magma erupts from volcano (lava)</li></ul> <ul style="list-style-type: none"><li>• equilateral triangle</li><li>• right triangle</li><li>• isosceles triangle</li><li>• scalene triangle</li></ul> <ul style="list-style-type: none"><li>- 3 congruent sides</li><li>- 3 congruent angles</li><li>- equal</li><li>- has a 90° angle</li><li>- 2 congruent sides</li><li>- 2 congruent angles</li><li>- "I saw Celes!"</li><li>- no sides congruent</li><li>- no angles congruent</li></ul>

### Instructions:

This strategy helps students effectively pull the main ideas out of what they read as well as providing a tool to help them organize that information. In a way, it is very much like outlining without all of the strict rules of formatting. Students divide papers into two columns (see examples above). The left-hand column is usually used for the main ideas, which are often the subtopics presented in the selection. The right-hand side is used for elaboration, details about the main ideas. The information in two column notes can also be rated on importance, which creates "power notes." Students label the main ideas as #1's. In the right-hand column, they label the details based on their importance with #2's, then #3's, etc. Students can easily use the notes for studying by folding one side over. By looking only at the main ideas, they can quiz themselves on the details and vice versa.

## ***Two-Minute Chat***

*Useful for discussion of various topics, interviews, idea exchanges, and opinions. Appeals to the interpersonal, intrapersonal, and auditory learners.*

### *Examples*

- Tell me what you know about the Boston Tea Party.*
- Pretend to be an astronaut on the space station. Tell about your experiences*
- If you were to make a sequel to Harry Potter or to Happy Feet, what would it be like?*

### *Instructions:*

*These instructions are the same as those for Think/Pair/Share.*

- 1. The teacher or a student poses a question (or the student picks a topic from a given list of topics).*
- 2. The student thinks (ponders) what he or she knows about the question or topic. (These ideas may chose to be recorded in writing if desired).*
- 3. The student is paired with another student and each takes turns being a good speaker and a good listener. (Each student may be asked to paraphrase the other student in a short written paragraph).*
- 4. When all pairs have shared, then a short group discussion may take place to summarize each pair's findings.*



# Unit Organizers

A KU Strategy

Useful for introducing a unit.

Example

STRATEGIC READING									
○ LAST UNIT/Experience Industrial Tech	○ CURRENT UNIT PVC SQUID								
○ NEXT UNIT/Experience Literature Circles									
○ UNIT SCHEDULE	○ UNIT MAP								
1/17 Question Mark									
1/18 Preview									
1/22 Warm-ups									
1/25 Infer to predict									
1/26 Synthesize									
1/31 Use Context as Clues									
2/5 Connect									
2/7 Visualize									
2/13 Lit. Circle Practice									
○ UNIT SELF-TEST QUESTIONS		<table border="1"> <tr> <td>Which strategy (besides determining importance) do I use the most? _____</td> <td>Cause and effect</td> </tr> <tr> <td>Which strategies do I use the least? _____</td> <td></td> </tr> <tr> <td>_____</td> <td></td> </tr> <tr> <td>I know what it says. What does it mean and what does it matter?</td> <td></td> </tr> </table>	Which strategy (besides determining importance) do I use the most? _____	Cause and effect	Which strategies do I use the least? _____		_____		I know what it says. What does it mean and what does it matter?
Which strategy (besides determining importance) do I use the most? _____	Cause and effect								
Which strategies do I use the least? _____									
_____									
I know what it says. What does it mean and what does it matter?									

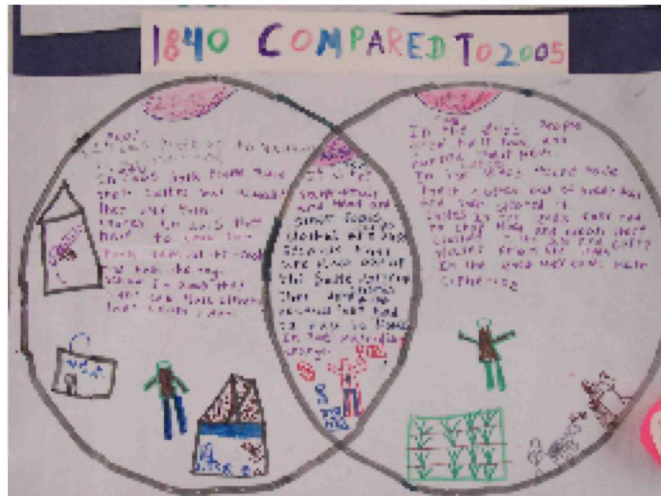
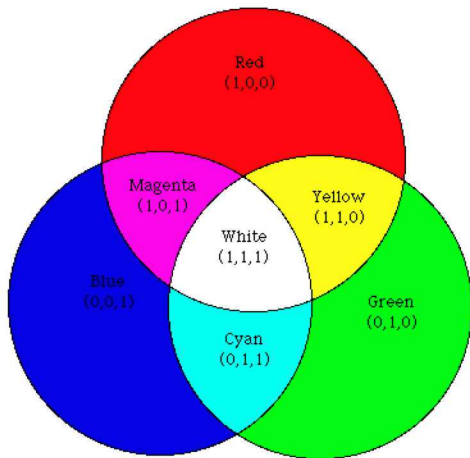
Instructions:

Present to the class using transparency or chart. You may have students fill in their copies as you fill in yours, or have the unit organizers partially completed to suit the circumstances.

# Venn Diagrams

Useful for

Examples



To produce charts like the ones above go to [http://www.teach-nology.com/web\\_tools/graphic\\_org/venn\\_diagrams/](http://www.teach-nology.com/web_tools/graphic_org/venn_diagrams/)

## Instructions:

1. Draw two (or possibly more, depending on how many sets you have) overlapping circles. If this is for presentation or school purposes, be sure to use a compass so that it looks clean and presentable. (See tips for more info on how to make your Venn Diagram neat)
2. Label your circles which represent each individual set.
3. The overlapping parts of each circle are the similarities of the sets. The non-overlapping parts are the contrasting elements of the sets.

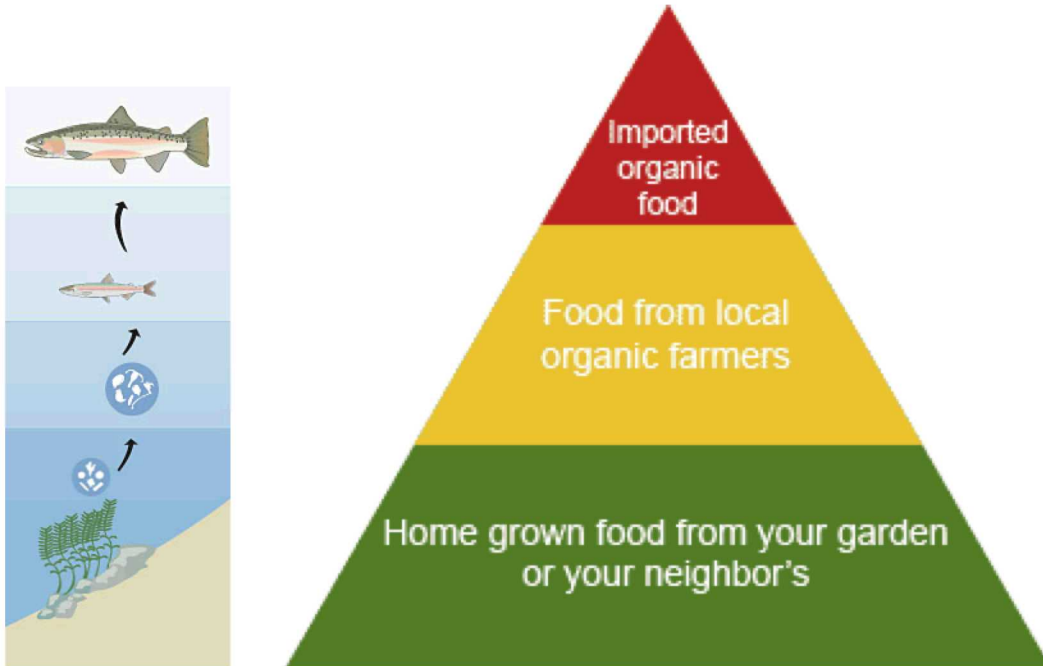
## Tips

- For symmetry: Two-sets: draw a straight line, using the end points as the centers of your circles. Three-sets: draw an equilateral triangle, using the corners as the centers. Four-sets and up: follow the same basic pattern, using a regular (equilateral) polygon with the number of sides equal to your number of sets.
- Fill in information into every part of your Venn diagram, but don't go overboard and make it crowded.

# Web Diagrams

*Useful for organizing information. Appeals to visual learners.*

*Example*



*Instructions:*

- *Create a circle in the middle of your paper that includes your topic area.*
- *From your center circle, draw a line.*
- *At the end of this line, draw another shape.*
- *In that shape, write the main idea that relates to your topic.*
- *Repeat the process of extending ideas to subideas with lines and circles.*

# *Whisper Partnering*

*Useful for keeping all students engaged during large group work. This strategy addresses the auditory and interpersonal learning styles.*

## *Examples*

- The teacher is reading aloud to the entire class. At a pivotal point in the story, the teacher stops and says, “What do you think will happen next? Turn to your whisper partner and whisper to them how you’d continue with the next part of the story.” After sharing, the teacher can continue with the reading.*
  
- Yesterday, the class learned about double-o sounds. To review, the teacher instructs the students to turn to their whisper partner and whisper a word that has the double-o sound. After everyone has shared, the teacher calls on a few students to share their word with the class.*

## *Instructions:*

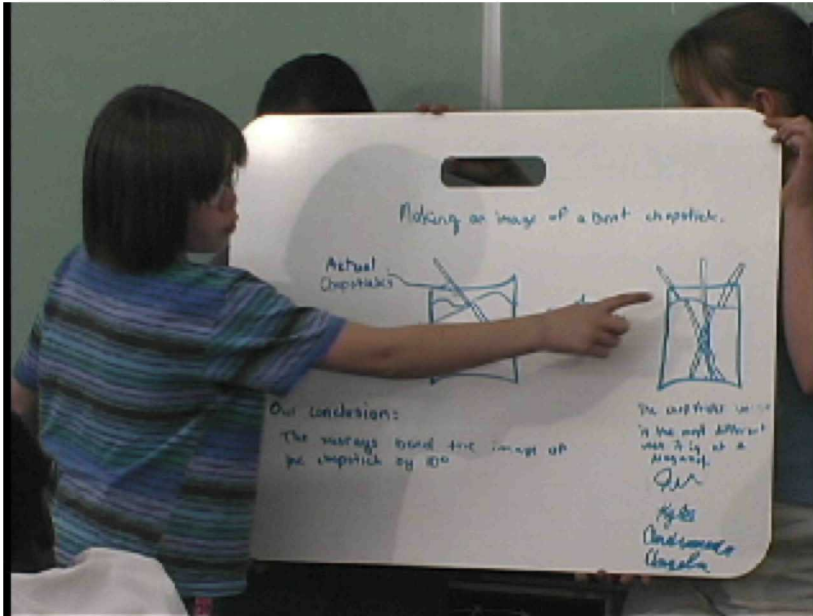
*This is a variation of Think-Pair-Share.*

- 1. The teacher gives an instruction or poses a question.*
- 2. Students must whisper to their partners.*
- 3. The teacher can “steal” the answer if the student speaks loudly rather than whispering.*
- 4. The teacher may or may not ask the students to share the ideas;/answers with the class – either their own answers or the answer whispered by their partners.*

# White Boarding

*Useful for focusing on the most important items in an activity.  
“Thought is not merely expressed in words; it comes into existence through them”. Lev S. Vygotsky, Thought and Language, 218.*

## Example



*In whiteboarding students work in groups to paraphrase a reading or activity. On a white board with colored markers, they write key words, short phrases, or draw pictures to convey the outline of their presentation.*

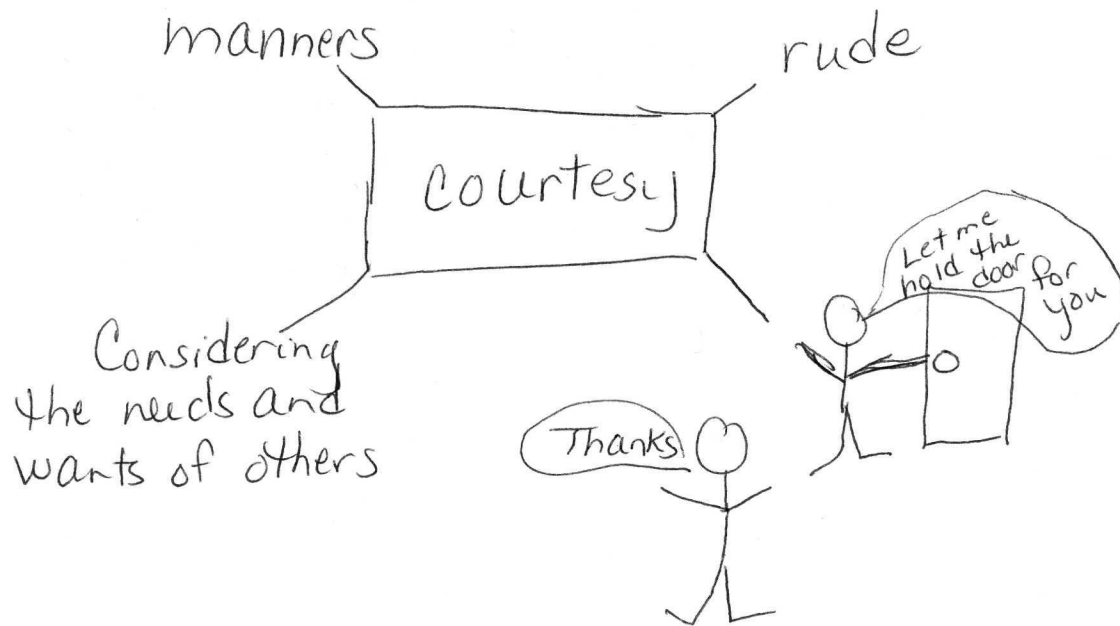
## Instructions:

- 1. After a lesson or laboratory activity the class is divided up into small groups.*
- 2. Within each group, members collaborate to create a single white board that communicates the main ideas of the reading or activity.*
- 3. After each group has created their white board, each group takes turns sharing to the class what they have done with a presentation whose visual aid is the white board.*

# Word Mapping

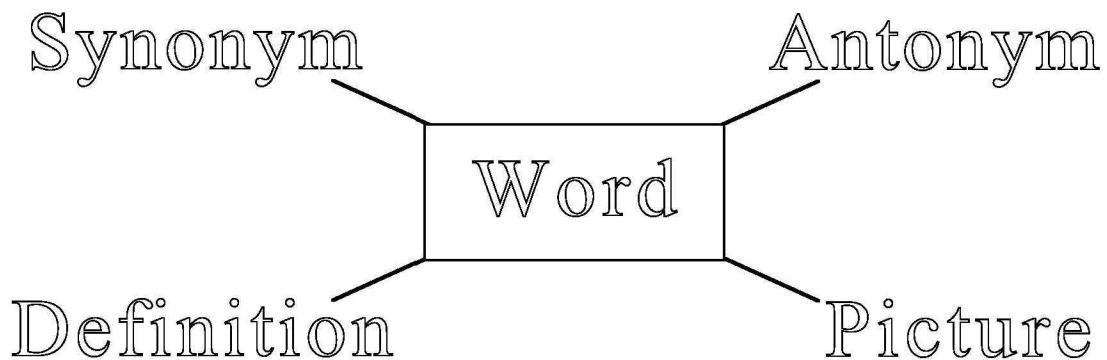
Useful for learning vocabulary.

Example



Instructions:

Provide students with the following model to map assigned words.





## ***Write-To-Learn***

*Useful for checking understanding and for getting students thinking outside the box.*

### *Example*

*Look at the picture below. What do you see in it? What does it make you think of? What emotions does it bring out in you: fear, sadness, anger, none-of-these? Using the answers to these questions write a short story about the picture.*



### *Instructions:*

*RAFT techniques can be employed as can journaling.*

*After students have written, call on several of them to read, not tell you in other words, what they have written. Doing so forces them to pay attention to how they have stated their ideas and encourages them to look at their written words. Calling on several students allows for a variety of responses, and you can use this activity to make your own connections between/among their responses.*

*One word of warning is in order, however: Do not make judgmental comments, either good or bad, after students have read. Remember that you are encouraging them to commit ideas to paper. You do not want to make them anxious or resent the activity because the person who read first received a "Great!" response from you and the next person didn't. A simple "Thank you for sharing" works well as you proceed to call on the next person or to tie what has been said in with the day's lesson.*



## ***Y-Charting***

*Useful for encouraging students to think critically about classroom climate and to identify appropriate behaviors for achieving this, for example, what does a cooperative English classroom ‘feels like’, ‘sounds like, and ‘looks like’.*

*Example*

<b>Sounds like</b> Lots of on-task buzz from Hear positive talk, Laughter, humour, Praise, encouragement	<b>Feels likes</b> Cheerful, happy, worthwhile, valued all Motivated, engaged, switched on Comfortable, purposeful Satisfying, buzzing, exciting
<b>Looks like</b> Lots of speaking and listening Interaction, sharing, positives Consulting, helping, not put downs Lots of team work, not competitive Everyone pulling their weight	

*Instructions:*

- 1. Decide on the topic/social skill you wish to explore with your students.*
- 2. Divide students into small groups, allocating tasks to each group member such as recorder, reporter, timekeeper, organizer*
- 3. Hand out Y chart (see above).*
- 4. Have students brainstorm as many possibilities as they can within a specific time limit.*
- 5. Each group reports back.*
- 6. Discussion and clarification follows.*
- 7. Strengths and weaknesses are identified as the topic/social skill is utilized in the classroom over several days or lessons and follow-up action is suggested.*