

Literacy Effective Strategies

Vocabulary	Before Reading	During Reading	Post Reading
Vocabulary Word Wall Frayer Model Knowns/Unknowns Learning Map Vocabulary Organizer Concept Development	K-W-L Anticipation Guide ABC chart	Close Read Read Aloud Read w/pencil Reciprocal Reading Retelling Talk to the text Reciprocal Teaching	Reflection Journals 4-2-1 Learning Map Fish Bowl (inner/outer circle) Story Pyramids Dramatization Picture strategy Round Table Discussions Socratic Seminar Save the last word for me Jigsaw Stand up Sit down
		Note Taking Cornell Notes New American Notebook Structured Notes	<hr style="border-top: 1px dashed black;"/> Graphic Organizers Comparison Matrix Bow Tie Organizer Story Map (Freitag Pyramid) Venn Diagram Thesis Proof C E I History Frame
Questioning	* Essential Questions * Subsidiary Questions * Provoke Inquiry * Hypothesizing * who, what, when, where, why	Interactive Lecture	D-M-A Model Jansen's Questions Model Bloom's Taxonomy Facet of Understanding Questions Picture Strategy
Writing	Quick Writes	Quick Writes	Reflective Journals Quick Writes RAFT SPAWN
Summarization	Think-Pair-Share	Think-Pair-Share 3-2-1 Sentence Synthesis Magnet Summary	One Word Summary Pyramid Ticket Out P-M-I

National Standards

CONTENT STANDARDS FOR SCHOOL MATHEMATICS

Number and Operations Standard	Instructional programs from pre-kindergarten through grade 12 should enable all students to <ul style="list-style-type: none">▶ Understand numbers, ways of representing numbers, relationships among numbers, and number systems;▶ Understand meanings of operations and how they relate to one another;▶ Compute fluently and make reasonable estimates.
Algebra Standard	Instructional programs from pre-kindergarten through grade 12 should enable all students to <ul style="list-style-type: none">▶ Understand patterns, relationships, and functions;▶ Represent and analyze mathematical situations and structures using algebraic symbols;▶ Use mathematical models to represent and understand quantitative relationships;▶ Analyze change in various contexts.
Geometry Standard	Instructional programs from pre-kindergarten through grade 12 should enable all students to <ul style="list-style-type: none">▶ Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships;▶ Specify locations and describe spatial relationships using coordinate geometry and other representational systems;▶ Apply transformations and use symmetry to analyze mathematical situations;▶ Use visualization, spatial reasoning, and geometric modeling to solve problems.
Measurement Standard	Instructional programs from pre-kindergarten through grade 12 should enable all students to <ul style="list-style-type: none">▶ Understand measurable attributes of objects and the units, systems, and processes of measurement;▶ Apply appropriate techniques, tools, and formulas to describe measurements.
Data Analysis and Probability Standard	Instructional programs from pre-kindergarten through grade 12 should enable all students to <ul style="list-style-type: none">▶ Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them;▶ Select and use appropriate statistical methods to analyze data;▶ Develop and evaluate inferences and predictions that are based on data;▶ Understand and apply basic concepts of probability.

PROCESS STANDARDS FOR SCHOOL MATHEMATICS

Problem Solving Standard	Instructional programs from pre-kindergarten through grade 12 should enable all students to <ul style="list-style-type: none">▶ Build new mathematical knowledge through problem solving;▶ Solve problems that arise in other contexts;▶ Apply and adapt a variety of appropriate strategies to solve problems;▶ Monitor and reflect on the process of mathematical problem solving.
Reasoning and Proof Standard	Instructional programs from pre-kindergarten through grade 12 should enable all students to <ul style="list-style-type: none">▶ Recognize reasoning and proof as fundamental aspects of mathematics;▶ Make and investigate mathematical conjectures;▶ Develop and evaluate mathematical arguments and proofs;▶ Select and use various types of reasoning and methods of proof.
Communication Standard	Instructional programs from pre-kindergarten through grade 12 should enable students to <ul style="list-style-type: none">▶ Organize and consolidate their mathematical thinking through communication;▶ Communicate their mathematical thinking coherently and clearly to peers, teachers, and others;▶ Analyze and evaluate mathematical thinking and strategies of others;▶ Use the language of mathematics to express mathematical ideas precisely.
Connections Standard	Instructional programs from pre-kindergarten through grade 12 should enable students to <ul style="list-style-type: none">▶ Recognize and use connections among mathematical ideas;▶ Understand how mathematical ideas interconnect and build on one another to produce a coherent whole;▶ Recognize and apply mathematics in contexts outside of mathematics.
Representation Standard	Instructional programs from pre-kindergarten through grade 12 should enable students to <ul style="list-style-type: none">▶ Create and use representations to organize, record, and communicate mathematical ideas;▶ Select, apply, and translate among mathematical representations to solve problems;▶ Use representations to model and interpret physical, social, and mathematical phenomena.

Word Walls

Purpose

Word walls offer great potential for transferring responsibility and control for reading and writing from teacher to students. They do so by serving as scaffolds in two ways. First, Word Walls provide visual reminders of target terms. Second, activities using Word Wall terms serve as conversational supports that help students comprehend terms, develop nuanced understandings of them, build links among them, and apply them independently. Word Walls are highly versatile and can be adapted to meet the needs and interests found in particular classrooms.

Procedures

1. Select the terms. Include key terms from the upcoming unit and consider allowing student input as well.
2. Decide where you will display the words and how they will be organized, ie., how will they be grouped?
3. Introduce terms using Word Wall cards, talk about the terms or analyze the terms parts.
4. Practice Word Wall terms during class (set, input, closure)
5. Encourage students to use terms in their writing. [summaries, quick writes, essays]

10 Important Words

- Students are asked to read a piece of information or a chapter
- As the students read, they individually pick out the 10 most important words in the chapter
- The next day, the students come to class with a list of the words
- Students go up to the board and write own the words they picked out
- The teacher goes over the words and how they are important

Reflection:

This strategy is a very good way to help students be able to pick out the main idea or key points of a certain chapter. As the students read, they will be paying attention to any words that seem to be important. When a word is important, they write it down. At the end, each student will have 10 words on their list. At this point, the students can go up to the board and write down their words. If one student has the same words as another, they can just simply put a check over it (in a column), or the teacher can provide sticky notes for the students to write their words on and then stick on the board. This helps the teacher see what words the class agreed with as being very important, but also which words that were not listed that could have been crucial to the chapter. After all students have went to the board, the teacher can dicuss how each of the words are important and which words that were not mentioned that should have been and why they are important. The students can take notes during this time, which will be very beneficial for them to look back at later on. Having students use this strategy instead of just writing down the word, will help them realize how it relates to the chapter and help them to remember the words better.

There is no visual neccasry for this strategy.

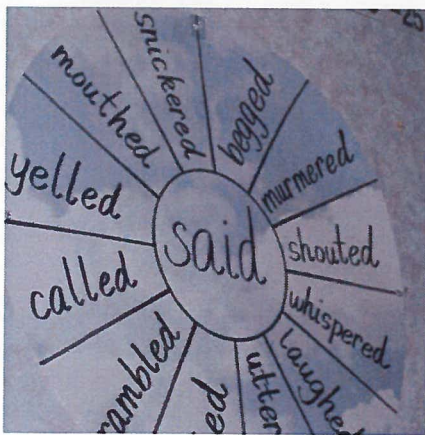
Vocabulary Wheel

- Students are given 2 wheels that have vocabulary words in them
- Teacher will pair up words from the two wheels
- The students will be asked to make connections between the two words and how they tie together

Reflection:

This is a great vocabulary strategy because it forces to students to go beyohnd knowing just the meaning of words. Being able to make connections between two words means that the students will have to have to very good understanding of the word. Making connections goes along with finding similairities, and as discussed before, that is the most effective way for a student to learn. This can be an independent strategy, or the teacher can give each student a partner or split the class into groups for discussion. Students can write down their responses, or just simply think about them and be prepared to share their thoughts. This strategy can also be very beneficial at the end of a unit or lesson to help tie everything together, by understanding how all of the words come together.

(Words in both charts differ from eachother)



Double Entry Journal

- Students are given something to read
- They write down the vocabulary words
- Students write the book definition of the words
- They then write the meaning of the word in their own words

Reflection:

This strategy can be both very beneficial and negative. The good thing about having students record on a double entry journal is that it forces them to think beyond a book definition. Often when a student reads vocab words, they are reading them but not actually understanding them. After students write the book definition, they are required to write the meaning of the word in their own words. This will help them question their understanding on not only the words, but also the section they're reading. This can also help the teacher out by seeing which words the students struggled with or didn't understand. The negative aspect of this is that it can be very time consuming. When it is time to go over the double entry journal teachers will have to spend a lot of class time working with it because they have to be sure that they go over all of the words. The other negative part is that students may only focus on vocabulary and ignore the rest of the section.

Book Definition	Personal Interpretation
Word-	
Word-	
Word-	
Word-	
Word-	

Knowns/ Unknowns

- Vocabulary strategy
- Students are split into groups
- A set of vocabulary words are given to them
- The group discusses and help each other out by deciding which words they know, which words they are familiar with, and which words they don't know the meaning of.

Words	Knowns	Familiar	Unknowns

Reflection:

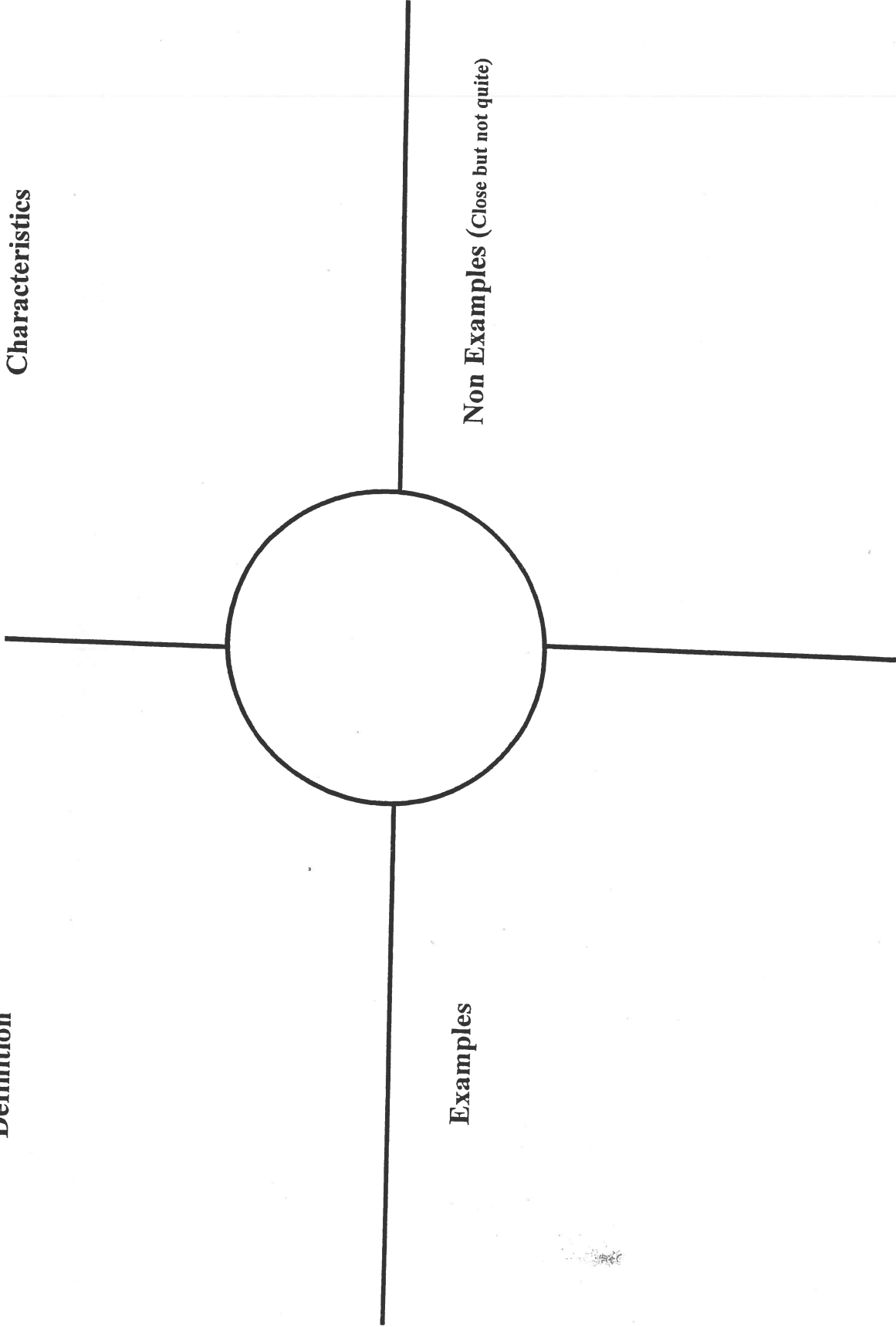
Having students work together is very beneficial when using this strategy. Students likely have different words in their boxes when they originally fill out the chart. After the students fill out their charts, they will have the opportunity to get together with classmates and help each other out. One student may know words that another student put in their unknown column. They can talk through each word and make changes to their carts based on other students' responses. This is beneficial to the teacher because this strategy gets the class interactively working with the words, which will help them to remember better. It also will help teachers know which words to spend extra time on (the unknowns), make the familiar words known, and spend less time on the ones that the students put in their known column.

Definition

Characteristics

Examples

Non Examples (Close but not quite)





A B C Brainstorm

T O P I C

A _____

N _____

B _____

O _____

C _____

P _____

D _____

Q _____

E _____

R _____

F _____

S _____

G _____

T _____

H _____

U _____

I _____

V _____

J _____

W _____

K _____

X _____

L _____

Y _____

M _____

Z _____

Summary Paragraph:

.....

.....

.....

.....

.....

Anticipation Guide



An anticipation guide is a comprehension strategy that is used **before** reading to activate students' prior knowledge and build curiosity about a new topic. Before reading, students listen to or read several statements about key concepts presented in the text; they're often structured as a series of statements with which the students can choose to agree or disagree. Anticipation guides stimulate students' interest in a topic and set a purpose for reading.

When to use:	<input checked="" type="radio"/> Before reading	<input type="radio"/> During reading	<input type="radio"/> After reading
How to use:	<input checked="" type="radio"/> Individually	<input checked="" type="radio"/> With small groups	<input checked="" type="radio"/> Whole class setting

Why use anticipation guides?

- Anticipation guides stimulate students' interest in a topic and set a purpose for reading.
- They teach students to make predictions, anticipate the text, and verify their predictions.
- They connect new information to prior knowledge and build curiosity about a new topic.

More comprehension strategies

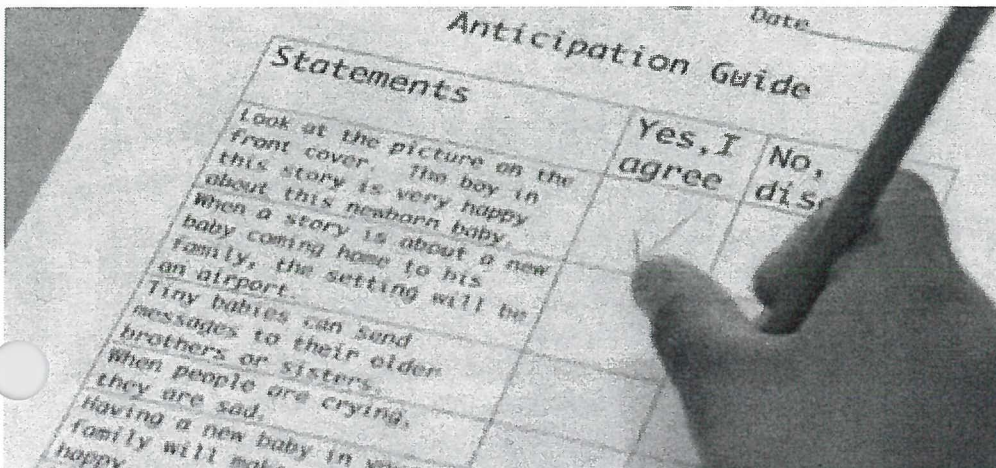
- Concept Sort
- Story Sequence
- Think-Pair-Share

How to use an anticipation guide

1. **Construct the anticipation guide.** Construction of the anticipation guide should be as simple as possible for younger students. Write four to six statements about key ideas in the text; some true and some false. Include columns following each statement, which can be left blank or can be labeled *Yes*, or *No* (*Maybe* can also be used).

NOTE: Teachers may wish to create an additional column for revisiting the guide after the material has been read.

2. **Model the process.** Introduce the text or reading material and share the guide with the students. Model the process of responding to the statements and marking the columns.
3. Read each of the statements and ask the students if they agree or disagree with it. Provide the opportunity for discussion. The emphasis is not on right answers but to share what they know and to make predictions.
4. Read the text aloud or have students read the selection individually. If reading aloud, teachers should read slowly and stop at places in the text that correspond to each of the statements.
5. Bring closure to the reading by revisiting each of the statements.



Name _____ Date _____

Title of story _____ Author _____

Anticipation Guide

Use the following anticipation guide to preview a story before you read it. Before reading, mark whether or not you agree or disagree with each statement. After reading the story, fill in the page number where you found the answer to each statement, tell whether or not you were right, and reflect on what you found.

	Agree/Disagree	Page #	Were you right?	Reflect
1.				
2.				
3.				
4.				
5.				
6.				
7.				

Anticipation Guide

T – True

NS – Not Sure

F – False

Before

After

T Literacy is the key to learning _____

F Structured lessons reduce creativity resulting in lower student achievement _____

NS Lecturing segments should be limited to 5 minutes _____

T With the right strategies focused on literacy, poorer school districts can outperform richer school districts _____

T Literacy strategies are among the lowest priority of most school districts _____

T Whole-class discussion/debate should be a regular event in our classrooms _____

F Writing in the classroom is a worthy goal, but time for correcting limits its use T

KWL Chart

- A KWL chart is given to the students
- This chart contains 3 columns
- The first column is labeled with “K”
- The second column is labeled with “W”
- The third column is labeled with “L”
- Students are asked to write what they already KNOW in the first column
- Then they are asked what they WANT to know about a certain subject
- Lastly, students are asked what they LEARNED after the teacher is done with the lesson for the day

Reflection:

This strategy can be used as both an anticipatory set or a closure. The anticipatory set would be the part where students are asked to access their prior knowledge. In this part, students will write in the “K” column by writing down things they already know. They will also fill out the “W” section. The teacher should ask the students what type of things they wrote down to get a better understanding of what he or she needs to spend more or less time on. The teacher should also focus on the students’ responses for the ‘W’ column because this is where he or she will find out the type of questions students have that will hopefully be answered by the end of the lesson. After the teacher goes over it, he or she will have the students fill out the “L” section. This section will show the teacher how much knowledge the students attained. KWL charts are also helpful notes for students to look back on when studying.

K.W.L. Chart		
Topic _____		
K What I Already Know	W What I Want to Know	L What I Have Learned

Reading, Writing and Thinking in the Content Area

Chapter _____ Focus

Annotation

Page #

Sentence or quote of importance

[comment, explain, expand, illustrate, interpret
illustrate, note, remark, opinion, summary]

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Reciprocal Teaching

[Palincsar *et al*, 1984, 1986]

What Is Reciprocal Teaching?

In the opinion of Palincsar and Brown, Reciprocal Teaching is in some ways a compilation of four comprehension strategies:

- summarizing
- questioning
- clarifying
- predicting

Please understand that some think the choice of "reciprocal" in the name of this strategy is slightly misleading. It conjures up the image of a student in front of the class, or of students taking turns telling each other important ideas in the text. Instead, the strategy is best at seeking to promote comprehension by tackling the ideas in a text on several fronts.

How Does It Work?

The order in which the four stages occur is not crucial; you'll want to try out different versions of the strategy to see if a particular protocol suits your teaching style, and your students' learning styles, better. You will also want to choose text selections carefully to be certain that they lend themselves to all four stages of reciprocal teaching.

How Might I Implement Reciprocal Teaching in my Classroom?

Before you can expect reciprocal teaching to be used successfully by your students, they need to have been taught and had time to practice the four strategies that are used in reciprocal teaching. Doesn't it make sense that they should already have learned and become comfortable with summarizing before attempting to use it in a reciprocal teaching situation? Or questioning? Or predicting? Or clarifying?

One approach to teaching reciprocal teaching might be to have students work from a four-column chart, with each column headed by the different comprehension activity involved.

You might also consider implementing reciprocal teaching the way Donna Dyer of the North West Regional Education Service Agency in North Carolina recommends. Here's one way she suggests you use reciprocal teaching:

1. Put students in groups of four.
2. Distribute one notecard to each member of the group identifying each person's unique role.
 - a. summarizer
 - b. questioner
 - c. clarifier
 - d. predictor
3. Have students read a few paragraphs of the assigned text selection. Encourage them to use note-taking strategies such as selective underlining or sticky-notes to help them better prepare for their role in the discussion.
4. At the given stopping point, the Summarizer will highlight the key ideas up to this point in the reading.
5. The Questioner will then pose questions about the selection:
 - o unclear parts
 - o puzzling information
 - o connections to other concepts already learned
 - o motivations of the agents or actors or characters
 - o etc.
6. The Clarifier will address confusing parts and attempt to answer the questions that were just posed.
7. The Predictor can offer guesses about what the author will tell the group next or, if it's a literary selection, the predictor might suggest what the next events in the story will be.
8. The roles in the group then switch one person to the right, and the next selection is read. Students repeat the process using their new roles. This continues until the entire selection is read.

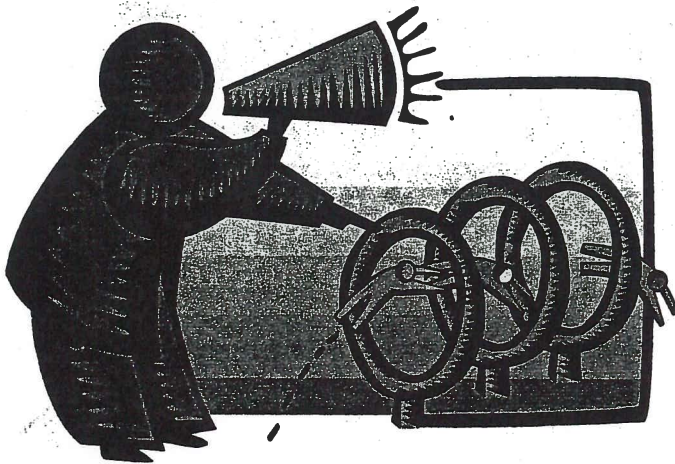
INFORMATIONAL TEXT

PAIRS READING (RECIPROCAL READING)

This strategy needs to be modeled well before asking students to use it.

1. Select a passage and arrange students in pairs
2. The first student also known as the "reader" reads the first paragraph of section aloud.
3. The second student also known as the "coach" summarizes what was read and asks the reader questions.
4. Students then switch roles for the next section.
5. When the passage is completed, the students cooperatively summarize the main points.

NOTE: Depending on the complexity of the passage and the age of the students, you may want both readers to first read the section silently. Then the reader summarizes the information and the coach asks questions. The students exchange roles for the next section.



"Reciprocal Teaching"

Clarifier

"Reciprocal Teaching"

Summarizer

"Reciprocal Teaching"

Predictor

"Reciprocal Teaching"

Questioner

Read with a Pencil

- Students are given something to read
- As they read, they follow their reading with a pencil
- When the students approach something interesting they put a “!” by it
- When the students approach something important they underline it
- When students approach something they are confused by they put a “?” by it

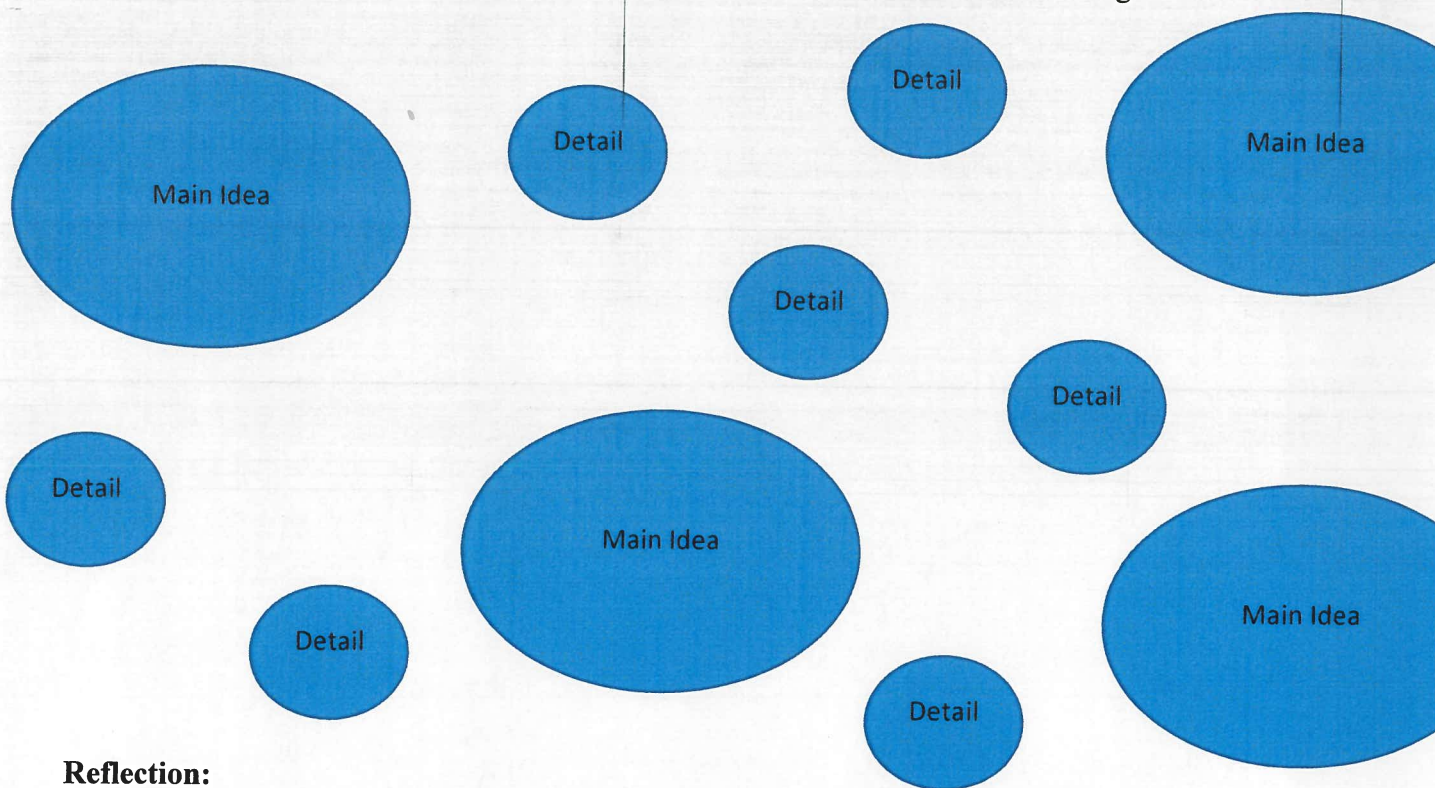
Reflection:

This is a very good reading strategy because it helps students pay attention to what they are reading, rather than just reading through it without actually understanding what is going on. When the students come back to class the next day, they will then have interesting facts, important information, and questions. These three things will sum up what the reading covered. The teacher can split the class into groups and allow them to go over which things were underlined, which had an exclamation point by them, and which things had a question mark by them. Students will then be able to discuss if they agree with their classmates and engage in conversation about what they read. The teacher can also go around the room and have students share the things they marked, and ask them why it was important to them. The question part will also allow teachers to answer any questions and clear up misunderstandings on what the students read.

There is no visual necessary for this strategy.

Pearls of Wisdom

- Students are given something to read
- They are also given a worksheet with both big and small circles
- As they read, students individually write the key points/main ideas in the big circles
- When they come across small supporting details, they record them in the small circles
- When the circles are filled out and the student has fully read what was given to them, they draw arrows connecting the details to the main ideas that are in the big circles.



Reflection:

This strategy can be very beneficial because a lot of students have trouble picking out the main ideas of a passage. This helps student focus the information they're reading, and pick out what they do and do not need. The biggest ideas appear in the big pearls, and the smaller ideas go in the small circles. Everything in the pearls should be important to what the students read. After students have filled it out they will connect the supporting details (small circles) to the main ideas (big circles) by using arrows. This can be also become a partner strategy or be used as a way to engage the classroom in discussion. Students can compare what they wrote with what other students wrote, to be sure they took away the main points. After this, the teacher can review what should have been included.

Did you hear what I heard?

- Students are given a piece of information to read
- While reading, students take notes on what they believe to be the most important parts of the material
- When finished, students will team up with a partner to share what they wrote
- While working with each other, the partners will help to clear up any misunderstandings, vocabulary, or important missed information.
- After any misconceptions are cleared up, students will summarize the material independently

Reflection:

This can be a very beneficial strategy when students are unable to focus on the material that is given to them. Often students can't focus on information because their mind wanders off to other things because of distractions. Having the students pick out the main points while reading will help them focus their reading. They will also know what to look for, rather than just reading it briefly and not knowing what to do with the information. The students' notes will be very beneficial to look back on when reviewing. Allowing the students work with partners will also help clear up things that one person may not understand. Students working together will help them grasp the main idea and write a good summary that can be beneficial to look back at.

There is no visual necessary for this strategy.

4-2-1

The student chooses four main points of an article or something they were assigned to share with a partner and choose only 2 main points that they agree upon. The students then work in a group to come up with what they think is the main idea. After the group agrees on the main idea, they write a summary of the entire article at the bottom.

Reflection:

This is a great strategy for reading assignments because it allows students to pick out the main ideas in order to get the “big picture”. It also allows the students to practice cooperative learning and working with others to come to an agreement. It also makes the students think more in depth about the subjects because they have to defend why they picked the main points that they did.

4-2-1 summarizer (TPR)

Four

Two

One

--

Rogers, et.al (1999). *Motivation and Learning*. . .

Main Ideas:



Summary/Free Write:

“They Say, I Say” Writing Strategy

General Considerations

When we write about a topic we are writing in response to something that has been said by someone relative to the topic or something that has not been said that we believe needs to be said.

In the real world, no one argues in a vacuum. Arguments come from being provoked by someone or something.

Identifying what “They Say” establishes significance.

When we write about the topic we should give considerable thought (research) to what has been said about that topic before we write our thoughts, views and opinions.

This is a dialogue not a monologue (not just stating your view)

Understand the conversation taking place surrounding the topic before you jump in to offer your views.

There are three different ways we can write relative to the topic and what “They Say”

1. “They Say _____” and I agree - Agreement
2. “They Say _____” and though I do not agree with _____ in what they say, I would agree with _____ in what they say. - Both Agreeing and Disagreeing
3. “They Say _____”, but I do not agree. - Disagreement

Steps in the process of writing using this strategy:

Step 1 – Figure out what others are saying about the topic (both pro and con)

Step 2 – Figure out what you want to say about your topic

Step 3 – Tie what “They Say” and what “You Say” together into a strong cohesive essay.

Example templates:

Agree - “She argues _____ and I agree because _____.

Agree - His argument that _____ is supported by new research showing that _____.

Agree and Disagree - He claims that _____, and I have mixed feelings about it. On the one hand I agree that _____ On the other hand, I still insist that _____.

Disagree - My own view is that _____. Though I concede _____, I still maintain that _____.

Disagree - Although some might object that _____, I reply that _____. The issue is important because _____.

Stand up Sit Down

- Teacher will give students a prompt or question that requires more than one answer
- Each student will come up with one answer on their own
- All of the students then stand up
- The students go around the room sharing their answers
- If someone said their answer before them, they sit down
- The strategy ends after all of the students are seated
- There is no visual necessary for this strategy

Reflection:

This strategy is good to use as an anticipatory set or a closure because it requires students to recall information. Students could recall information at the beginning of the lesson, or they could be asked to summarize it at the end. This strategy allows students to get out of their seats for a few minutes, covers a lot of information briefly, and engages the entire classroom. This strategy is also beneficial for teachers because it helps them see what they need to spend more time going over, and what many students were already familiar with.

There is no visual necessary for this strategy.

Cooperative Learning

- Students are slip into groups
- Students are given an assignment or project to work on together

Reflection:

This strategy is group work. Many students often prefer to work independently, but when used properly group work can be very effective. Group work gives students a chance to hear what other students have to say and hear opinions other than their own. Although, there is one problem that many teachers and students will face when allowing students to work in groups. Many students end up doing all of the work by themselves because no one else wants to work on it. The students that don't usually work often take group work as an excuse to do nothing because they know that the other students in the group will take care of it. Teachers should stress the importance of all students working together, without leaving anyone out. A good way to be sure this happens is to divide the work up and assign parts to each person in the group. If the students use group work the way they are suppose to it can be very beneficial to them.

There is no visual necessary for this strategy.

Jigsaw Strategy

- Students are divided into groups
- Each person in the group is assigned a specific part to do
- Group then discusses each person's part and puts it all together

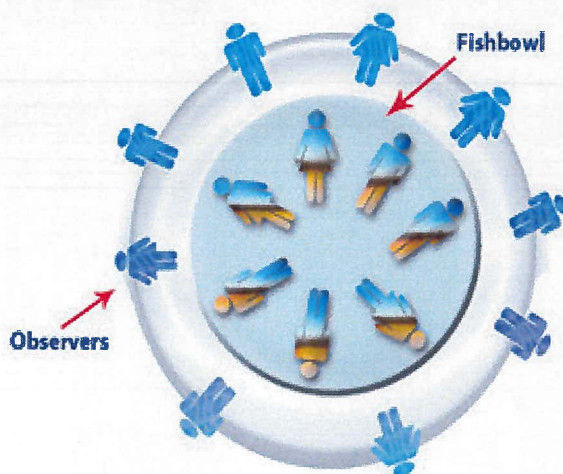
Reflection:

This is a very effective cooperative learning strategy. Group work can become very difficult at times for teachers because they face the problem of one student doing all of the work and the other students getting out of doing anything. Some students also grow to dislike group work because they are the type of student that ends up doing all of the work by themselves. This strategy helps to solve that problem. The teacher can divide the work up for all students in the group so that each person is given an equal amount of things to do. When all of the students have done their parts, they can then come together and finish putting together whatever they were required to do. At that point, they can discuss which parts they did so that the whole group has a good understanding of what they were asked to do. This can be a lot more effective than just assigning students to groups and letting them set it up themselves.

There is no visual necessary for this strategy.

Fish Bowl

- Give students something to think about
- Divide the class in half
- Half of the class should spread their chairs on the outside of the classroom in a circle
- The other half will put their chairs in a circle, in the center of the larger circle made by the other students
- The students in the middle will be discussing what they think, or answering questions provided by the teacher
- The people on the outside are the observers, until it is their turn to go into the “fish bowl” and have their discussion
- After the first group is done discussing, the outside comes into the center and the students that were in the center are now the observers.



Reflection:

This strategy is a good way to get the whole classroom involved. Everyone in the fishbowl has to participate and express their thoughts while other students decide if they agree or not. This challenges the students minds, and makes them think on a higher level. The teacher can also come up with questions before hand to ask the students. This will help to focus the discussion on what the teacher feels are the most important aspects of what they're learning. Along with being an engaging activity, this can also be a very fun activity. It gives students a chance to do something other than the norm in a classroom. The observers get an opportunity to question their understanding and focus on things they may need to spend more time on.

Get one, Give one

- This strategy requires a partner
- The teacher gives a prompt for the students to write multiple answers to
- The students individually write down their answers on a piece of paper
- After students are done sharing their answers, they are paired up with someone
- The partners give each other answers that the other doesn't have
- The partners get answers from each other that they didn't have.

Reflection:

This strategy is very useful for students that are working with a partner. Each person individually will most likely come up with different answers because each person will have their own thoughts on what they learned. The partners could also share with other groups around the room. This would help to be sure that everything is covered. After the students have went around the room "getting one" and "giving one", the teacher can take time to review. This is effective for the teacher because he or she will hear common answers that the class discussed. If there were any key points or answers that the class did not go over, the teacher could then take the time to go over those things and clear up any misunderstandings.

There is no visual necessary for this strategy.

Cornell Notes

- The Cornell note taking method is used as a way for students to organize information
- Helps students take away the main ideas from what they're being taught
- On the left side, students write the main ideas
- On the right side, students take notes
- On the bottom, students write a couple of sentences as a summary of what they learned

Key Words	Notes
Summary-	

Reflection:

Cornell notes are a very good way to engage students in interactive note taking. While taking notes, students will have to think at a higher level, rather than just writing down what appears on the board. Cornell notes also help students when they need to review information because it is organized. This note taking strategy is much more effective than students copying information down word for word. The summary is a good way for students to apply what they determine what the main points are, and why they are important.

New American Notebook

- Note taking method
- Helps students decide between what is important and what isn't important
- The title can be found at the top of a horizontal paper
- A 3x4 chart is displayed for students to write in
- Student fill in the key words, notes regarding the words, and their response to each word/ how it relates to the text

Key Words	Notes	Response

Reflection:

This is a very effective note taking strategy because it allows students to be actively involved with the information and pick the main ideas and focus on what is important. Students will first write down the key words of the material they're dealing with. Understanding vocabulary of a certain section is very important for students because it will allow them to better understand the section as a whole. After picking out the key words, students will then take notes in relationship to the words they wrote down. This section is important because it provides students with the details necessary to put all of the information together and make sense of it. Lastly, students will write in the response column. This can be additional notes, pictures, main ideas, or questions about what they read. This can be beneficial for students when the teacher is reviewing the material and going over the main ideas.

Your Questions ESSENTIAL

Grant Wiggins and Denise Wilbur

The well-known aphorism that “writing is revision” applies, particularly well, to crafting essential questions. With more than 30 years of experience in teaching through questions and helping educators create great unit-framing queries, we’ve repeatedly seen the wisdom of this saying!

But what makes a question essential in the first place? Essential questions foster the kinds of inquiries, discussions, and reflections that help learners find meaning in their learning and achieve deeper thought and better quality in their work. Essential questions meet the following criteria:

- They stimulate ongoing thinking and inquiry.
- They’re arguable, with multiple plausible answers.
- They raise further questions.
- They spark discussion and debate.
- They demand evidence and reasoning because varying answers exist.
- They point to big ideas and pressing issues.
- They fruitfully recur throughout the unit or year.
- The answers proposed are tentative and may change in light of new experiences and deepening understanding. (McTighe & Wiggins, 2013)

Here are some examples of good essential questions: *To what extent does where you live influence how you live? What should we make of outliers—error, anomaly, or insight? What should our diet and wellness plans be in a world of constantly changing advice from experts?*

APRIL 2013

Luck of the Draw

- Used when picking students randomly
- Students names will all be entered into a jar
- The teacher will pick a name out of the jar
- Whoever is picked has to do what the teacher tells them to do.

Reflection:

This strategy is useful in a classroom where it seems that only the same few people participate. The teacher will randomly pick a name to decide who is going to do what they are asked to do. This could be something as simple as answering a question, or reading their paper out loud to the rest of class. This can be beneficial because of the pressure it puts on students. If students know that their work may be shared, it is likely to increase their motivation for putting effort into it. This strategy will also take some relief off of the students that continuously answer questions daily. The entire classroom will now be involved and answering questions. This can also be an effective strategy when picking the order of presentations or partnering students up.

There is no visual necessary for this strategy.

Wait Time

- Teacher asks a question to the class
- Realizing that not everyone can process the question at the same rate, the teacher gives the class a reasonable amount of wait time before calling on anyone.

Reflection:

There are different types of learners in a classroom. An important part of being a teacher is not only being aware of that, but knowing how to deal with it. Just because one student learns best visually, doesn't mean that every other student learns best that way. For example, half of the class could be visual learners and the rest may be divided between auditory and kinesthetic learners. This goes for wait time as well. Students process information at different speeds. If a teacher asks a question and immediately calls on the first person to spring their hand up into the air, the rest of the class will probably stop thinking about the question, even if they're in mid thought. Introverted learners are particularly the students that need more time. When a teacher asks a question, they should allow a decent amount of wait time without calling on anyone. The teacher should also never call on a student and then ask the question because the rest of the class will stop thinking about it. Teachers should allow introverted learners to think of their answer, and then proceed to call on someone.

There is no visual necessary for this strategy.

THE BOW TIE

Similarities

Differences

Differences

Conclusions:

THESIS - PROOF

Thesis:	Evidence Supporting
	Evidence Refuting

CONCLUSION

Name _____
Date _____

Class _____
Block / Period _____

CEI: Claim, Evidence and Interpretation

Claim: _____

Evidence: Examples, quotes, textual references that support the claim . . .

Interpretation: An explanation and/or analysis of the evidence . . .

R.A.F.T. (Role, Audience, Format, & Topics)

Purpose:

RAFT technique provides an easy, meaningful way to incorporate writing into content-area instruction. It includes the following four components:

- R: Role of Writer—Who are you? a principal, Beethoven, a human heart?
- A: Audience—To whom is this written? a corporation, a scientist, lawyer?
- F: Format—What form will it take? a letter, a poem, a journal?
- T: Topic + strong verb—What important topic have I chosen? Choose a strong verb to describe your intent: persuade a corporation to accept your invention; demand payment for an injury; plead for leniency.

Procedure:

- Step 1: Explain that all writers need to consider four components of every composition: role of writer, audience, format and topic.
- Step 2: Brainstorm ideas about a topic. Select several topics from those mentioned
- Step 3: Write RAFT on the board and list possible roles, audiences, formats, and strong verbs that are appropriate for each topic.
- Step 4: Give students some examples to write about; OR after discussing a topic, have students create their own RAFT writing assignment.

Roles and/or Audiences for Writers		
ad agencies administrators artists athletes businesses cartoonists	classical musicians corporations doctors drama clubs ecologists editors	historians journalists museums parents pen pals poets
Formats for Writing		
The following list offers teachers and students only some of the formats for writing. In the RAFT strategy, the possibilities are endless.		
advertisement advice application cartoons commercial editorial essay eulogy Farewell Fiction	flyers inquiry interviews invitation legal brief memos metaphors monologue news story pamphlet	petition poetry posters psychiatrist public notice requests resume reviews
		riddles skits slogans sound tapes telegrams warning will written debates yearbook

proceeds to

"Brain Compatible? Check It Out!"	
— Stress = brain downshifts	— Content must have relevance for the learner
— M(memory) space = how much the learner works on at a time	— Brain pays conscious attention to only one thing at a time
— Enriched environment = increasing dendrite branching	— All learning enters through our senses/emotions

Using Pictures to Develop Understanding

Questions

Explicit

Inference

Analysis

Picture

Perspective

Quick Write Possibilities

Generalizations/Conclusions



**Instructional Strategies IV
Strategies for Understanding**

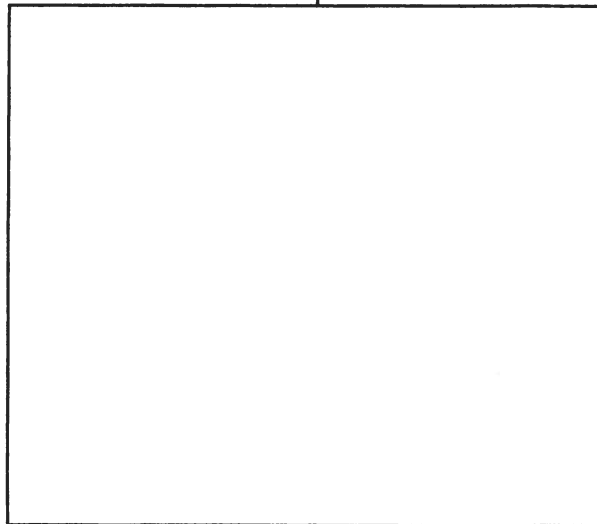
Picture Strategy

Generalizations/Conclusions

Questions

Questions

Perspectives



Quick Write Possibilities

Potential for Facets of Understanding

SPAWN Writing

What is SPAWN Writing?

- SPAWN is a Post Reading, Writing and Reading Comprehension Strategy

What does SPAWN stand for?

- **Special Powers** – Students have the ability to change one aspect of a text or topic, but must explain what they changed, why they made this change, and what the effects of the change are.
- **Problem Solving** – Students must respond to problems discussed in the books being read or topics being discussed.
- **Alternate Viewpoints** – Students are to write about a topic from a new, unique perspective.
- **What if?** – Teacher introduces a change to the text or topic, students respond to teacher's change (similar to Special Powers).
- **Next** – Students anticipate what will be discussed next and explain the logic behind their prediction.

Why use SPAWN?

- Measures students' understanding of the text, topic, or prompt
- Strategy offers an array of ways of thinking
- Forces students to think critically about topics in different ways
- Encourages thinking outside a text or topic, but is based on evidence from text or classroom material
- Gives students the power, authority, and venue to be creative, without limiting their thinking
- Teacher has the ability to choose what type of thinking their students will work on
- Informal writing, and grading/evaluation, doesn't impede critical thinking or freedom of response
- Can be used daily at beginning or end of lesson

- Prompts can be material for a daily journal or writing log
- Easily integrated into Social Studies classes
- Explore cause and effect relationship in Science classes
- Helps students understand link between concepts in Math

How to use SPAWN

1. Choose what type of thinking you want your students to complete, and then select which of the five types of prompts in SPAWN that is most appropriate.
 - a. For example, if you want students to look at recent material in new ways, the Alternative Viewpoints category would be appropriate. If you wanted students to illustrate their ability to base conclusions off of evidence from a text, you could select one of Special Powers, What If, or Next.
2. Introduce the strategy and each type of prompt to the class. Discuss what the students' responsibility is for each of the prompts.
 - a. Select one prompt to model for the class. Choose a familiar story everyone knows so that the background knowledge is there for all the students. Provide a short summary or any relevant background information if necessary.
 - a. For example, using the What If prompt, present the students with a prompt where Christopher Columbus' ships sank before they reached North America.
4. As a class, brainstorm a list of repercussions of this event and how it would have shaped history. Provide one of your own responses to the prompt and explain the thought process that lead you to that response. Ask students for the evidence they based their responses on; ask students to help make connections to the responses of others to see if they are able to understand their thought process.
5. Next, choose a series of events from the brainstorming list that would have happened as a result of the Columbus prompt. You should think aloud as you tie several of the events together, discussing how one event would lead to the next.
6. Create an outline with the class using those events.
7. Have the class write a short response to the original prompt using the outline you created. Allow five to seven minutes for the students to write their responses.
8. Share student responses.
 - a. Present class a new prompt that is the same type as the modeled prompt, but based upon a text or material from the previous days' lesson.
 - a. For example, after completing the Columbus prompt, provide the students with another What If prompt that is based upon a recent lesson or material discussed in class.

10. This process may need to be repeated for the other types of prompts, because they require different thinking skills. You may not need to have to do this lesson five times, though. Special Powers and What If require the student to do the same work, and the skills in Next are closely related, so you may be able to teach those two or three in conjunction. Problem Solving and Alternate Viewpoints need to be taught separately, though.

Content Areas Uses

Social Studies:

- Special Powers and What If can introduce historical fiction
- Alternative Viewpoints can place the students in the minds of enemy forces during war
- Problem Solving can be used to ask students to address conflicts world leaders face
- Next can help students understand timelines and events during a specific period or help students understand the cause and effect relationship

Science:

- Special Powers and What If allows students to view evolution through different paths
- Alternative Viewpoints lets students look at competing theories
- Problem Solving and Next can be used in lab experiments or with the Scientific Method

Math:

- Next helps students link between current and upcoming topics
- Special Powers, What If, and Problem Solving can help students explore new topics
- Alternative Viewpoints can be used to discuss contrasting ideas about math phenomena like 0/0

2 Minute Write

- Summaization strategy
- Used as a closure
- Students are given 2 minutes to write a summary of what they learned that day

Reflection:

This strategy is a very useful summarization strategy. It is often hard for students to pull out the main ideas of what they learned that day. Giving them time to write a quick summary will help them to put all of the information together. Considering students will only be given 2 minutes, their summaries will be rather short. This can be beneficial because this makes them easier to share. After students write a 2 minute write they can discuss their thoughts with a partner, or the whole classroom can get involved in conversation pertaining to what all of the students wrote. This is good to use as a closure because it sums up everything the teacher went over in class. A 2 minute write can also be a good review tool. Teachers can also provide students with questions to answer through their summary in order to narrow down the information.

There is no visual necessary for this strategy.

10/2

- The teacher teaches for 10 minutes
- After every 2 minutes, the students will be asked to do something with the information

Reflection:

This strategy is very important in order to keep students engaged. Just because students seem to be paying attention, doesn't necessarily mean that they are learning. If a student gets confused in the beginning of the lesson but is never given the option to work with and understand the information before the teacher moves on, they are likely to struggle to understand the lesson as a whole. Allowing students to have time to work with the information will first help to make sure they understand the lesson thus far. This strategy also prevents boredom. When students have to sit in their desks with any interaction for 45 minutes, the teacher will most likely lose their attention at some point. This will keep them actively involved with the information, and keep them on track.

There is no visual necessary for this strategy.

Summarization Pyramids

Sequence:

Construct a pyramid of lines on a sheet of paper (you determine the number).

For each line, choose prompts that yield one-word or short answers.

If you have a large pyramid and a prompt that requires a lengthy response, consider asking students to use more than one line of the pyramid for their response.

Suggested prompts:

- A synonym for the topic
- An analogy between the topic and a sport
- One question it sparks in you
- Three attributes or facts about the topic
- Three words that best describe the topic
- A book title or headline that would capture the essence of the topic
- One or two other topics related to this topic
- Causes of the topic
- Effects of the topic
- Reasons we study the topic
- Arguments for the topic
- Ingredients of the topic
- Personal opinion on the topic
- Demonstration of the topic in action
- The larger category from which this topic comes
- A formula or sequence associated with the topic
- Tools for using the topic
- Three moments in the history of the topic
- One thing we used to think about the topic that we've discovered to be incorrect
- Samples of the topic
- People who use the topic
- What the topic will be like in 25 years
- your own developed prompts

As you decide on prompts and pyramid sizes, make sure to choose experiences that will allow students to interact with the intended topic in many ways. To learn something from more than one angle is to learn that something well.

Variations: Use shapes that lend themselves to the topic – examples: clouds for weather, branches for trees.

A pyramid-shaped grid of horizontal lines for writing prompts. The pyramid consists of 10 horizontal lines of varying lengths, arranged in a descending staircase pattern from top to bottom. The top line is the shortest, and each subsequent line below it is longer, creating a triangular shape. The lines are intended for students to write prompts for a summarization activity.

Summarizing to Comprehend

As the most cherished skill in the world of language arts, comprehension is also crucial to understanding texts in every other subject area. Although the process of comprehension is complex, at its core, comprehension is based on summarizing—restating content in a succinct manner that highlights the most crucial information. During the mid-1970s and early 1980s, the work of cognitive psychologists (see Kintsch, 1974; van Dijk, 1980; van Dijk & Kintsch, 1983) made this clear.

In a series of studies with teachers, we determined that summarizing strategies have a substantial average effect on student understanding of academic content. Across 17 experimental/control studies that teachers conducted, we found that using summarizing strategies, on average, increased students' understanding of content by 19 percentile points (see Haystead & Marzano, 2009).

Summarizing Strategies That Work

As with all instructional strategies, however, we found that some approaches to summarizing are more effective than others: Five strategies appear to influence students' ability to comprehend text.

Strategy #1: Clarify what's important.

Summarizing strategies that do not emphasize text structure have the least powerful effect. Some summarizing strategies simply ask students to sort content into information that is either important or extraneous. The problem with this approach is that it provides no guidance as to how students might differentiate important from unimportant information.

To be effective, a summarizing strategy should help students discern the inherent structures in a text. For example, a story has a structure: There are main characters; there is rising and falling

action; there are events that take place in certain locations, and so on. If students are aware that these elements are important aspects of stories, they are more likely to identify them and, consequently, more likely to comprehend the stories they read.

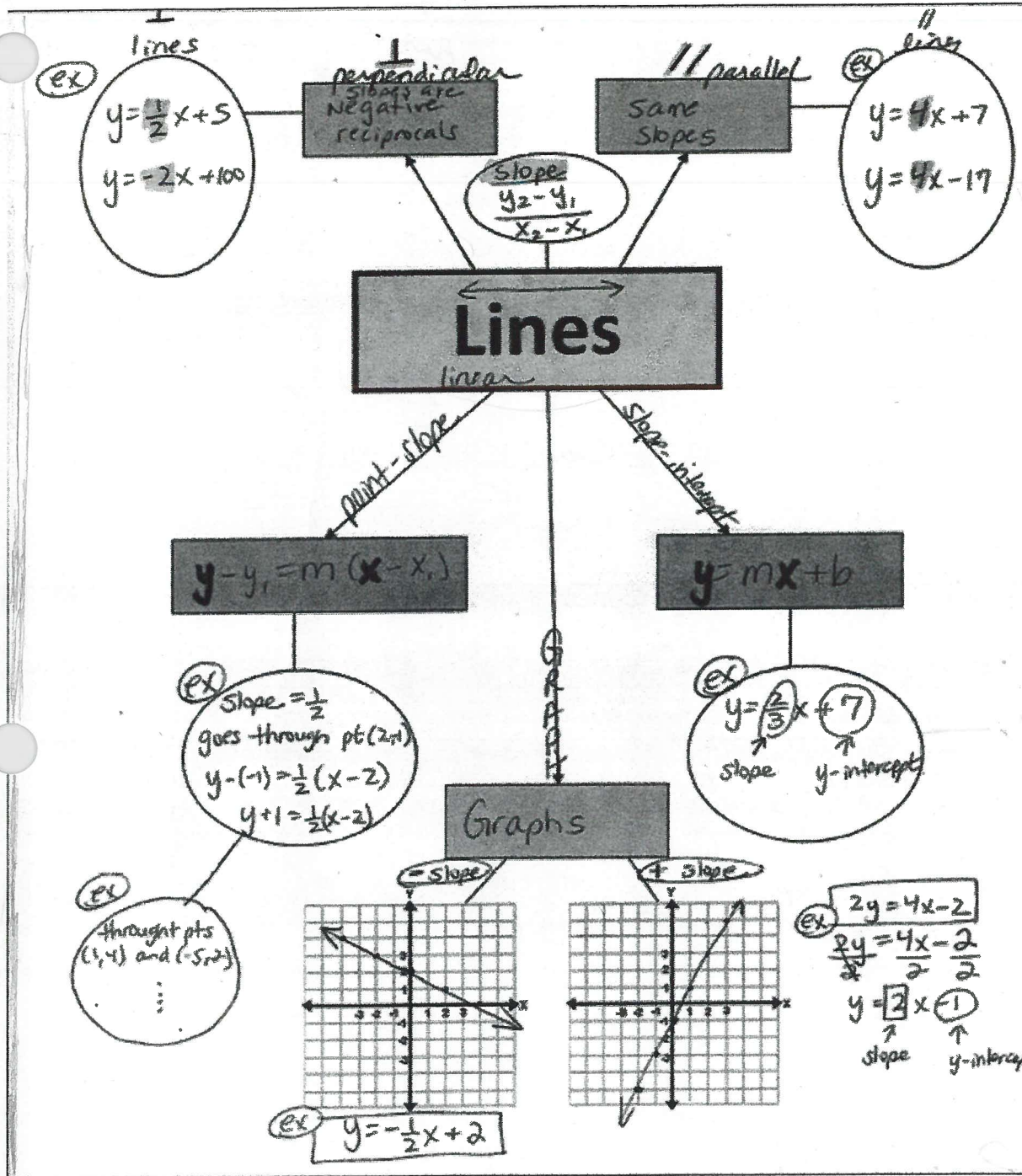
Strategy #2: Familiarize students with multiple text structures.

The story structure is familiar to students because they experience stories early on in their lives and because teachers typically teach story structures as a regular part of language arts instruction. Throughout their schooling, however, students will encounter many other kinds of text structures that are more expository in nature. Unless students recognize these structures, they may be less successful at comprehending the expository content in their textbooks and related readings. Important expository text structures include

- *Description structures*, which describe characteristics of a particular person, place, or thing.
- *Generalization structures*, which begin with a general statement like, "There are a wide variety of consequences for breaking federal rules regarding carry-on baggage on commercial airplanes." Examples illustrating the generalization follow.
- *Argument structures*, which begin with a statement that must be proven or supported. Proof or evidence follows the statement. Sometimes qualifiers identify exceptions to the proof or evidence provided. For example, an argument supporting global warming might list pieces of evidence that make the argument valid.
- *Definition Structures*, which begin by identifying a specific term and then describing the general category to which the term belongs, along with specific characteristics of the term that distinguish it from other terms within the category. For example, a text structure might articulate the characteristics of the process of commensalism, first explaining that it is a type



Learning Maps



Learning Maps

Developed by the learner based on their understanding and experience with the concepts:

The Maps may include any or all of the following:

- Key vocabulary words
- Examples
- Pictures/graphs/visuals
- Text
- Comments

• Quotes

Think-pair-share

- Very similar to think-pair-splash
- Students will be given a question or topic to think about
- Students will individually come up with an answer or thought
- After all students have been given enough time to think, they will be paired up with a partner
- The students can then discuss their thoughts and see where they agree or possibly disagree
- Teacher can then call on partners to share their thoughts with the rest of the class

Reflection:

This strategy is effective because by giving students something to think about you are getting them engaged. Students can either write down a response or they can just simply think about it. Students will be given 2 to 3 minutes of time on their own. When the time is up they will get paired up with a partner and compare their thoughts. This gives each person an opportunity to express their views as well as hear what the other partner has to say. The teacher should walk around and pay close attention to the discussion going on in the classroom. This interactive time gives the partners the opportunity to either agree or disagree with each other's views. If they disagree, they can try to persuade each other's views. After the partners are done sharing with each other, the teacher can then call on partners to share their views with the rest of the class. This is a good way for the teacher to see what the students understand, agree on, or disagree on.

There is no visual necessary for this strategy.

3-2-1

- Teacher will go through the lesson for the day
- Use this strategy as a closure
- At the end of the lesson, the teacher will ask students to write down 3 interesting facts that they learned throughout the lesson
- Student will write down 2 questions they still have on what they learned or want to know
- Students will write down a one word emotion on how they feel about the lesson

Reflection:

This strategy is a great closure because it covers all aspects of what students learned, what they still have confusion on, and how they feel about the lesson as a whole. This is beneficial for the teacher because they will be able to see what the students know and what areas they may need more help in. After the students have independently completed their 3-2-1, the teacher should go around the room and get feedback from the class. The teacher could ask some students to share their 3 facts, others to share their 2 questions, and the rest to share their one word emotion. This will be a good way for the teacher to see where the class is at. This can also be useful for students to look back on when reviewing.

3-2-1

3 Facts You Learned

1. _____

2. _____

3. _____

2 Questions You Still Have

1. _____

2. _____

1 Opinion You Have

1. _____

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Compare/ Contrast

- Students will be asked to find similarities between information
- Students will be asked to find differences between information

Reflection:

Finding similarities and differences is proven to be the most effective teaching strategy. Knowing how two things are similar will help students make connections in their minds and understand how it is relevant to them. In order for students to learn to the best of their abilities, it is very important that the information is relevant to them. It is also very important for students to find the differences between things. Students can develop a scheme when they are able to compare to things to eachother. Students can also create metaphors in their minds when comparing and constrating. When a student makes a metaphor that relates to their own lifes, the content becomes more relevant to them and it will be easier for them to remember it. The brain will process information, recall it, and then learn more information by making the connections.

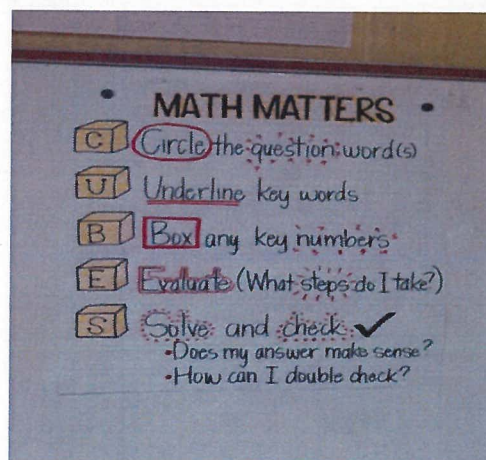
There is no visual necessary for this strategy.

Memorization Strategies

- C- Chunk/ categorize
- A- Associations
- M-Mnemonics
- P- Pictures or mental images

Reflection:

Incorporating memorization strategies is a very important aspect of effective teaching. In order to memorize things, rehearsal should be stressed. Finding ways to make rehearsing easier, will increase the students' chances of success. In order to get information into a student's long term memory, it has to be used frequently. Organizing the information in a way that is easy understand and helps with the memorization process will help the students. The acronym "C.A.M.P." is what we use to represent the memorization strategies. The chunk part means to categorize the information and group things together. The associations is where students are able to make connections in their mind and relate it to something else. The next one is mnemonics, which is using acronyms such as this one to help students remember things better. The last one is displaying pictures, which will help students get a mental image into their mind so they can better remember it. Using all of these strategies will help making teaching more effective and help students have an easier time learning.



Think-Pair- Splash

- Students are given something to think about
- After each student has an idea in their head they are paired up with a partner
- The partners discuss their thoughts and clear up any misunderstandings that they may have
- After the partners are done discussing, they then go up to the board where they write down the thoughts that they wrote down.

Reflection:

This strategy is effective because by giving students something to think about you are getting them engaged. Students can either write down a response or they can just simply think about it. Students will be given 2 to 3 minutes of time on their own. When the time is up they will get paired up with a partner and compare their thoughts. This gives each person an opportunity to express their views as well as hear what the other partner has to say. The teacher should walk around and pay close attention to the discussion going on in the classroom. This interactive time gives the partners the opportunity to either agree or disagree with each other's views. If they disagree, they can try to persuade each other's views. After they are done talking, the partners come up to the board and write down their thoughts. This gives the class an opportunity to see what other people thought.

There is no visual necessary for this strategy.

One Word Summary

- Teacher teaches the lesson for the day
- When the lesson is over, the teacher asks the students to write a one word summary explaining where they are in the learning

Reflection:

This strategy is very beneficial for the teacher because the words that students choose can be very powerful. For example, a student may choose the word “confused”. This would show the teacher that that student is struggling and didn’t understand the lesson that day. At the point, the teacher can then pull the student aside at the end of class and try to fix the problem or see if there are other students that are also confused. If there are several students that are confused, this shows the teacher that it could fall back on them. At this point, the teacher should spend more time or another day on the lesson until the students are comfortable with what they were taught and have a good understanding of it.

There is no visual necessary for this strategy.