Strategies and Routines for Active Engagement

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Strategies for Thinking, Engagement and Literacy

THINK PAIR SHARE ROUTINE
A routine for active reasoning and explanation

Think Pair Share involves posing a question to students, asking them to take a few minutes of thinking time and then turning to a nearby student to share their thoughts.

Purpose: What kind of thinking does this routine encourage?
This routine encourages students to think about something, such as a problem, question or topic, and then articulate their thoughts. The Think Pair Share routine promotes understanding through active reasoning and explanation. Because students are listening to and sharing ideas, Think Pair Share encourages students to understand multiple perspectives.

Application: When and where can it be used?
Think Pair Share can be applied at any given moment in the classroom. For example, when approaching a solution, solving a math problem, before a science experiment, or after reading a passage or chapter of a book you may ask students to take a moment to think about a particular question or issue and then turn to their neighbor and share their thoughts. Sharing can also be done in small groups. Some times you will want to have pairs or groups summarize their ideas for the whole class.

Launch: What are some tips for starting and using the routine?
When first introducing the routine, teachers may want to scaffold students' paired conversations by reminding them to take turns, listen carefully and ask questions of one another. One way to ensure that students listen to each other is to tell students that you will be calling on individuals to explain their partners thinking, as opposed to telling their own thoughts.

Encourage students to make their thinking visible by asking them to write or draw their ideas before and/or after sharing. Journals can also be useful. Student pairs can report one another's thoughts to the class and a list of ideas can be created in the classroom.

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Hand-up, Stand-up, Pair-up

A strategy for improving collaboration

1. Students prepare what they will be sharing (ie. 30-second speech)

2. When all are ready, raise your hands, make eye-contact and meet the other student

3. Greet your partner

4. Review the procedure for the activity and the time limit

5. Signal the students to begin

6. At the conclusion of the activity thank your partner and return to seat

Line-up
A strategy for improving collaboration

1. Ask students to write their (home number, last four digits of phone number, day of birth etc) on a slip of paper

2. Ask the students to place themselves in order according to the number

3. Provide directions at that point for the rest of the activity

This creates a way to get students to into random groups and to work with people they might not normally choose to work with.

Shoulder Buddy/Table Buddy
A strategy for collaboration

1. At your table, work with the person across from you (table buddy)

2. At your table, work with the person next to you (shoulder buddy)

Text Rendering
A strategy for summarization

1. Select a piece of text for students to work with

2. Provide each student with:
   a. A full sheet of 8.5 X 11 plain paper (sentence)
   b. A half sheet of the 8.5 X 11 plain paper cut the long way (phrase)
   c. A 3X5 Card (word)

3. As students read they are to individually identify what they consider to be the most important sentence, phrase and word in the text. (The phrase or the word do not need to come from the sentence, they can come from various portions of the text)

4. Please each sentence, phrase and word on each of the pieces of paper provided.

5. Each table then shares their work with each other and determines what the table determines to be the best sentence, phrase and word

6. Create a gallery walk of the each table's determinations and have the class view all of the work.

7. Return to seats and discuss what they saw and what the text means.

30 Second Speech
A strategy for summarization

1. Provide each student with a 3X5 card

2. Tell them they will be giving a 30 second speech on what they have been learning

3. They are to make a bulleted list of things to put in their speech on the 3X5 Card with their name on the back

4. When completed, use the hand-up, stand-up, pair-up strategy OR the line-up strategy to get students with a partner.

5. They are to determine who will go first.

6. The first person gives their speech (us a timer) while the second person listens. At the conclusion of the 30 seconds, reset the timer for 15 seconds and the second person now paraphrases what they heard.

7. The second person now gives his speech while the partner listens and then gives a 15 second paraphrase.

8. (Optional) Collect the 3X5 cards as a way to see what students have learned.

HEADLINES ROUTINE
A routine for capturing essence

This routine draws on the idea of newspaper-type headlines as a vehicle for summing up and capturing the essence of an event, idea, concept, topic, etc. The routine asks a core question:

1. If you were to write a headline for this topic or issue right now that captured the most important aspect that should be remembered, what would that headline be?

A second question involves probing how students' ideas of what is most important and central to the topic being explored have changed over time:

2. How has your headline changed based on today's discussion? How does it differ from what you would have said yesterday?

Purpose: What kind of thinking does this routine encourage?
This routine helps students capture the core or heart of the matter being studied or discussed. It also can involve them in summing things up and coming to some tentative conclusions.

Application: When and where can it be used?
This routine works especially well at the end of a class discussion or session in which students have explored a topic and gathered a fair amount of new information or opinions about it.

Launch: What are some tips for starting and using this routine?
The routine can be used quite effectively with think-pair-share. For example, at the end of a class the teachers can ask the class, "Think about all that we have been talking about today in class. If you were to write a headline for this topic or issue right now that captured the most important aspect that should be remembered, what would that headline be?" Next, the teacher tells students, "Share your headline with your neighbor." The teacher might close the class by asking, "Who heard a headline from someone else that they thought was particularly good at getting to the core of things?"

Student responses to the routine can be written down and recorded so that a class list of headlines is created. These could be reviewed and updated from time to time as the class learns more about the topic. The follow-up question, "how has your headline changed or how does it differ from what you would have said? can be used to help students reflect on changes in their thinking.

Two-Column Notes
A strategy for note-taking and summarization

What Are Column Notes?

Some of you will think, Gosh - this sounds like the old Cornell note-taking system. Column notes share characteristics in common with the Cornell system: information is grouped according to its type, and then arranged in columns. We'll begin with 2-column notes, but you should quickly see that the number of columns one uses is dependent upon the type of information you are dealing with and what your purpose for engaging in it is.

How Does It Work?

The column notes format lends itself to many variations. It may be that students would use it as a note-taking guide for their textbook reading; if so, then main ideas or headings would be listed in the left column, and details or explanations for each would be written in the right column. Alternatively, you might have students reading for cause and effect; if so, then causes can be listed in the left column and the effects in the right column. Students might list key vocabulary in the left column and definitions, examples, or sentences in the right. It may be as simple as reworking your typical question worksheets so that questions are on the left and answers are put on the right.

The Cornell system recommended that the left column be one-third of the page, and the right column two-thirds. It really doesn't matter much; students may find it much easier simply to fold their notebook paper down the middle to create the two columns neatly. Using the folded sheet can be a great study aide: students can quiz themselves or each other with the answers safely hidden on the other side of the folded sheet, but they can also check back and forth between questions and answers. This format becomes a very handy tool, but it also shows the organization of information more clearly, more dramatically, and certainly in a more visually-useful manner.

Science		Math	
• sedimentary rock	- wind/water erosion - sediments (bits of earth) washed downstream - land at bottom of rivers, lakes, & oceans - pressed layers turn into rock after many years	• equilateral triangle • right triangle	- 3 congruent sides - 3 congruent angles - equal - has a 90° angle
• igneous rock	- fire rock - formed underground by magma cooling - formed above ground when magma erupts from volcano (lava)	• isosceles triangle • scalene triangle	- 2 congruent sides - 2 congruent angles - "I saw Celese!" - no sides congruent - no angles congruent

TWO COLUMN NOTES

This strategy helps students pull the main ideas out of what they read and organize the information effectively. In away , it is very much like outlining without all of the strict rules of formatting. 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 stud ying by folding one side over. By looking only at the main ideas, they can quiz themselves on the details and vice versa.

Language Arts		Social Studies	
1 simple sentence	2 subject/predicate 2 complete thought 3 The dog ran quickly.	1 Legislative	2 makes laws 3 Congress 3 Senate 3 House of Rep.
1 compound sentence	2 two complete sentences joined w/ conj. + comma 2 use coordinating conjun. 2 BOY FANS (but, or, yet, for, and, nor, so) 3 The dog ran quickly, and then it stopped suddenly.	1 Executive	2 enforces laws/makes policy 3 President 3 Vice-President 3 Cabinet
1 complex sentence	2 depend. clause attached to independ. clause 2 uses subordinate conj. 3 After running away,	1 Judicial	2 interprets laws 3 Supreme Court 3 Circuit Court 3 District

Process Notes

Write the question.	Find 3 consecutive even integers whose sum is -12.
List clue words and facts.	Consecutive Integers Sum -12
Identify the variable(s).	x = the least even integer $x + 2$ = the next greater even integer $x + 4$ = the greatest of the three even integers
Make a drawing.	x $\quad$ $x + 2$ $\quad$ $x + 4$
Choose a strategy.	Problem Solving Using Equations
Solve the problem.	$x + (x + 2) + (x + 4) = -12$ $3x + 6 = -12$ $3x = -18$ $x = -6$
Write your answer in a complete sentence that answers the question.	We know that $x + 2 = -4$ and $x + 4 = -2$ so the integers are -6, -4 and -2.
Checks: Credibility (Does your answer make sense?) Mathematical	Yes, x is the least even integer. $-6 + (-6 + 2) + (-6 + 4) = -12$ $3(-6) + 6 = -12$ $3(-6) = -18$ $-18 = -18$

Main Ideas	What this means / Details

Summary:

Sum-it up
A strategy for summarization

Sum It Up Instructions

Get a "Sum It Up" sheet.

Read the entire selection (chapter, article, handout, primary source, etc.) and, as you read, list the main idea words on the "Sum It Up" sheet.

Write a summary of the selection using as many of the main idea words as possible. Put one word in each blank. Imagine you have only $2.00 and that each word you use is worth ten cents.

You'll "sum it up" in 20 words!

Adapted from Pat Widdowson
Surry County [NC] Schools

ReadingQuest
http://www.readingquest.org

S u m   I t   U p

NAME	DATE
TITLE of READING SELECTION	

1. Read the selection and underline the key words and main ideas. Write these in the blank area below where it says "Main idea Words."
2. At the bottom of this sheet, write a one-sentence summary of the article, using as many main idea words as you can. Imagine you only have $2.00, and each word you use will cost you 10 cents. See if you can "sum it up" in twenty words!

Main Idea Words:

"Sum It Up" for $2.00

_____ _____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____

*Adapted from Pat Widdowson
Surry County (NC) Schools*

ReadingQuest
http://www.readingquest.org

3-2-1 BRIDGE

A routine for activating prior knowledge and making connections

Your initial responses to the topic	Your new responses to the topic
3 Thoughts/Ideas	3 Thoughts/Ideas
2 Questions	2 Questions
1 Analogy	1 Analogy

Bridge:
Explain how your new responses connect to your initial responses?

Purpose: What kind of thinking does this routine encourage?

This routine asks students to uncover their initial thoughts, ideas, questions and understandings about a topic and then to connect these to new thinking about the topic after they have received some instruction.

Application: When and where can it be used?

This routine can be used when students are developing understanding of a concept over time. It may be a concept that they know a lot about in one context but instruction will focus their learning in a new direction, or it may be a concept about which students have only informal knowledge. Whenever new information is gained, bridges can be built between new ideas and prior understanding. The focus is on understanding and connecting one's thinking, rather than pushing it toward a specific outcome.

Launch: What are some tips for starting and using this routine?

This routine can be introduced by having students do an initial 3, 2, 1 individually on paper. For instance, if the topic is "democracy," then students would write down 3 thoughts, 2 questions, and 1 analogy. Students might then read an article, watch a video, or engage in an activity having to do with democracy. Provocative experiences that push students thinking in new directions are best. After the experience, students complete another 3,2,1. Students then share their initial and new thinking, explaining to their partners how and why their thinking shifted. Make it clear to students that their initial thinking is not right or wrong, it is just a starting point.

I USED TO THINK…, BUT NOW I THINK…
A routine for reflecting on how and why our thinking has changed

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Remind students of the topic you want them to consider. It could be the ideal itself—fairness, truth, understanding, or creativity—or it could be the unit you are studying. Have students write a response using each of the sentence stems:

- I used to think….

- But now, I think…

Purpose: What kind of thinking does this routine encourage?

This routine helps students to reflect on their thinking about a topic or issue and explore how and why that thinking has changed. It can be useful in consolidating new learning as students identify their new understandings, opinions, and beliefs. By examining and explaining how and why their thinking has changed, students are developing their reasoning abilities and recognizing cause and effect relationships.

Application: When and where can it be used?

This routine can be used whenever students' initial thoughts, opinions, or beliefs are likely to have changed as a result of instruction or experience. For instance, after reading new information, watching a film, listening to a speaker, experiencing something new, having a class discussion, at the end of a unit of study, and so on.

Launch: What are some tips for starting and using this routine?

Explain to students that the purpose of this activity is to help them reflect on their thinking about the topic and to identify how their ideas have changed over time. For instance:

When we began this study of _____, you all had some initial ideas about it and what it was all about. In just a few sentences, I want to write what it is that you used to think about _____. Take a minute to think back and then write down your response to " I used to think…"

Now, I want you to think about how your ideas about _____ have changed as a result of what we've been studying/doing/discussing. Again in just a few sentences write down what you now think about _____. Start your sentences with, "But now, I think…"

Have students share and explain their shifts in thinking. Initially it is good to do this as a whole group so that you can probe students' thinking and push them to explain. Once students become accustomed to explaining their thinking, students can share with one another in small groups or pairs.

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Ticket Out the Door

Copy and distribute at the end of a lesson to gauge how students are doing.

Suggestions:
1. Ask a specific question: "Tell me what you learned about…"
2. Ask students to write down a question they still have about the content.
3. Ask students to write down one thing they learned.
4. Ask students to make a connection between two things they have learned.

Ticket out the boor

{ _____

_____ }

Name: _____

Ticket out the boor

{ _____

_____ }

Name: _____

Ticket out the boor

{ _____

_____ }

Name: _____

Ticket out the door

Ticket out the door

Ticket out the door

Ticket out the door

Ticket out the door

Ticket out the door

Ticket out the door

Ticket out the door

Tip-Tip-Tell
A strategy to practice content

1. Provide a 3x5 card to every student

2. Describe the extent of the content to be reviewed

3. Each student writes a question on the front of the card and the answer on the back.

4. Use the Stand Up-Hand Up-Pair Up Strategy to match up the students

5. The students quiz each other on their questions. If the student A is unable to answer the questions, student B provides a tip or clue, if the student is still unable to provide the answer then another tip is provided, if they are still not able to answer the question than the answer is told to the student.

6. Students swap cards and match up with another person.

7. Continue on until you feel they have practiced sufficiently

8. Collect the cards and use them on your test or quiz.

Relationship Map
A strategy to practice content

1. Provide the same list of words/concepts to each group of students along with a large blank sheet of paper, markers and glue

2. Ask the students to reach consensus on how to arrange the terms on the paper writing how the terms are all related to each other

3. Post the paper on the wall for a gallery walk and for peer comment and questions.

COMPASS POINTS
A routine for examining propositions

1. E = Excited
   What excites you about this idea or proposition? What's the upside?

2. W = Worrisome
   What do you find worrisome about this idea or proposition? What's the downside?

3. N = Need to Know
   What else do you need to know or find out about this idea or proposition? What additional information would help you to evaluate things?

4. S = Stance or Suggestion for Moving Forward
   What is your current stance or opinion on the idea or proposition? How might you move forward in your evaluation of this idea or proposition?

Purpose: Why use this routine?

To help students flesh out an idea or proposition and eventually evaluate it.

Application: When and where can I use this routine?

This routine works well to explore various sides and facets of a proposition or idea prior to taking a stand or expressing an opinion on it. For instance, the school may be considering the idea of a dress code, a teacher might present the class with idea of altering the room arrangement, a character in a book might be confronted with making a choice, a politician might be putting forth a new way of structuring taxes, and so on.

Launch: What are some tips for starting and using this routine?

The routine needs to be modeled with the whole group initially with responses recorded for the entire class to see. This enables students to build on each other's ideas. You might record responses using the directions of a compass to provide a visual anchor. That is, draw a compass in the center of the board and then record responses corresponding the appropriate direction: E, W, N, or S. It is generally easiest for students to begin with what is exciting or positive about the idea or proposition and then move to worrisome and need to know. Students might be asked to write down their individual stance or suggestion for moving forward after the initial group discussion.

You can also ask students to make an initial judgment or evaluation of the idea or proposition before doing the compass points and then ask them how their thinking has changed after discussion using the compass points routine.

Compare and Contrast Diagram

Concept 1	Concept 2

HOW ALIKE?

HOW DIFFERENT?

	with regard to	

D-R-T-A for Expository Text (Before Reading Strategy)

What is it?   Directed Reading/Thinking Activity for expository text

is a procedure to guide students to:

1. Activate prior knowledge for the topic
2. Hypothesize about what might be addressed
3. Establish purposes for reading.

How to do it? STEP 1

Recalling prior knowledge and setting purposes for

reading. At the beginning of a chapter, unit, or article,

ask and record responses to the following?

- What do you know about…?
- What do you think you know…?
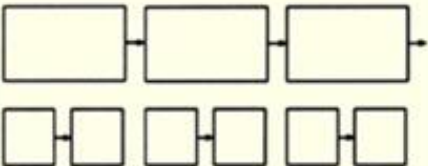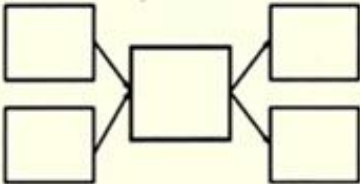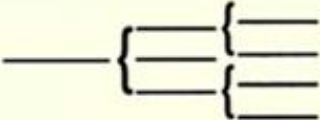- What's your best guess…?

STEP 2
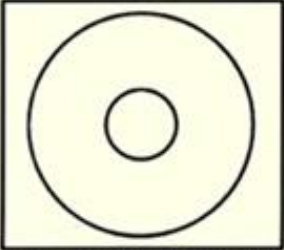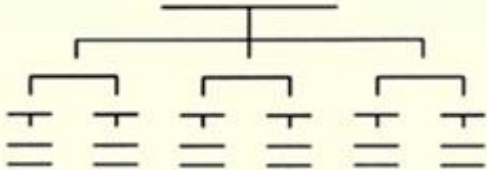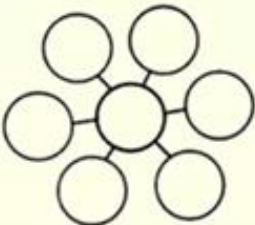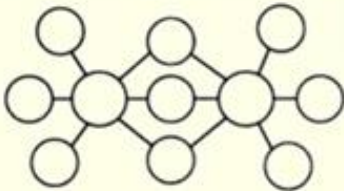
Reading to confirm prior knowledge and add to prior

knowledge.

- Read the article.
- See if you can find information on predictions made.
- See if you can find answers to your questions.

STEP 3

Confirming, rejecting, or adding to prior knowledge and

invite further investigation.

- What did you discover? Confirm? Or refute?

CIRCLE MAP

FOR DEFINING IN CONTEXT

TREE MAP

FOR CLASSIFYING AND GROUPING

BUBBLE MAP

FOR DESCRIBING USING ADJECTIVES

DOUBLE BUBBLE MAP

FOR COMPARING AND CONTRASTING

FLOW MAP

FOR SEQUENCING AND ORDERING

MULTI-FLOW MAP

FOR CAUSES AND EFFECTS

BRACE MAP

FOR ANALYZING WHOLE OBJECTS AND PARTS

BRIDGE MAP

as

FOR SEEING ANALOGIES

26

Frayer Model

Definition	Characteristics
Examples	Non-examples
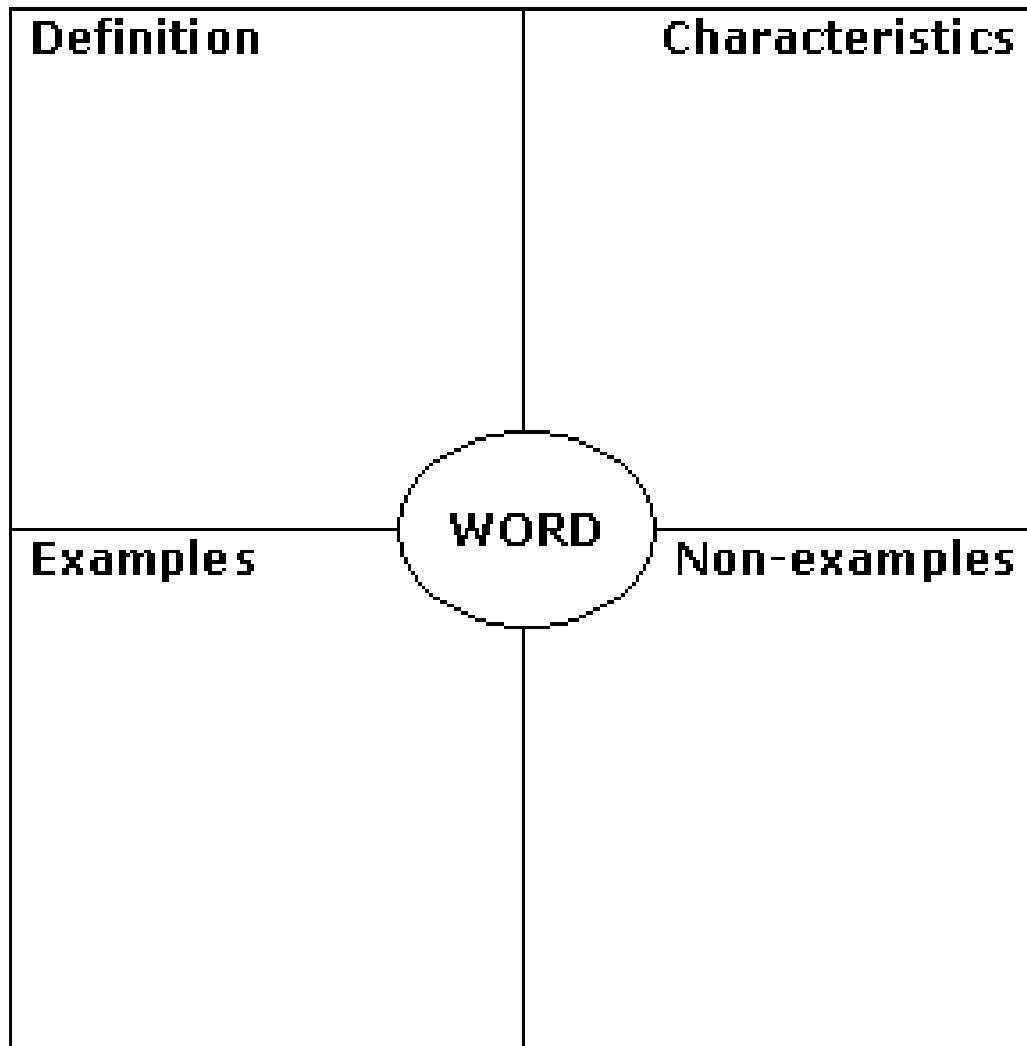
WORD

	Word	Meaning	Characteristics	Picture/example
1				
2				
3				
4				
5				