Appendix C

Strategies to Support Learning

Introduction

The strategies in this appendix are not new. Recent research on how the brain works, as it assimilates new information, supports the use of these and similar strategies. Many of these strategies also help with differentiating instruction, thus reaching more students and helping them achieve more. While most of these strategies can be used at anytime, for convenience they have been grouped under three headings. These are:

1. ***Activating Prior Knowledge***. Brain research and constructivist approaches point out that all students bring prior knowledge to the classroom. By activating their prior knowledge, teachers put the new information into a familiar context for the students, which gives a context into which they can then assimilate the new information and understanding.

2. ***Active Learning Strategies***. These activities are drawn from cooperative learning structures. While simply using the following structures does not constitute a true "cooperative learning" approach, these structures provide students with the opportunity to become actively engaged in their learning as well as providing opportunity for flexible group processing of the subject matter.

   For more information on the Cooperative Learning approach, as well as on these and other cooperative learning structures, refer to http://edtech.kennesaw.edu/intech/cooperativelearning.htm.

3. ***Summary and Synthesis***. It is known that in order for new information to be retained it must be meaningful to students and assimilated into their current cognitive structures. Brain research tells us that our brain can only process so much information at a time and that "processing time" must be provided in order for new information to be assimilated. The acts of summarizing, "putting in your own words", etc, give our brains the necessary time to move the new information from short term memory into longer term memory. While, most of the activities in this section require less than 5 minutes to complete but pay huge dividends in terms of student engagement and achievement.

It is important to note that the strategies are listed under these three headings as a matter of convenience. Several strategies could have been listed under two or three of these headings. The following table can be used as a guide.

Strategy	Activate Prior Knowledge	Active Learning Strategies	Summary and Synthesis	Page
Anticipation/Re-action	☺		☺	
Mix & Mingle	☺	☺	☺	
K-W-L	☺	☺	☺	
Three-Step Interview	☺	☺		
Roundtable	☺	☺	☺	
Write Around	☺			
Give one - Get one	☺		☺	
Quiz-Quiz-Trade		☺	☺	
Think-Pair-Share	☺	☺	☺	
Two-Minute Review		☺	☺	
Numbered Heads		☺	☺	
Inside-Outside Circle		☺	☺	
Jig Saw		☺	☺	
Round Robin Brainstorming	☺	☺		
Mind Maps	☺	☺	☺	
Journaling	☺		☺	
Conversation Circle		☺	☺	
Exit Cards			☺	

Activating Prior Knowledge

Anticipation/Reaction Guide

- This strategy is used before the instruction on new information begins.
- Given a list of statements, students make predictions based upon prior knowledge and evaluate those predictions after exposure to new information.
- The purpose of this strategy is twofold:
  → Activate and evaluate prior knowledge
  → Create a state of curiosity/anticipation or to set the stage for the learning to come.

Procedure:

1. Generate a list of 4-8 statements related to your topic of study. Place these on an Anticipation/ Reaction Guide. This can be in list or table format.
2. Provide each student with a copy of your guide.
3. Prior to introducing new information, engage students by having them write whether or not they AGREE or DISAGREE with the statements listed on the guide.
4. Teach your lesson content.
5. After the new content has been taught, have students react to the new information by responding again to the statements on the Anticipation/Reaction Guide.
6. Discuss why their before and after answers are different. What did students learn that caused them to change their answers? This can be done in pairs, groups, or as a whole class activity. Students could use their thoughts on this as journal-writing material.

The Mix & Mingle Party

- This is a modification of the Quiz-Quiz-Trade activity. It is used as a pre-instructional strategy to familiarize students with the upcoming content. It can also be used as a strategy to review content.
- Students are provided with the question/answer cards before they have covered the material in class. They pair up as in the Quiz-Quiz-Trade activity and each student takes a turn providing their partner with the information contained on the card (i.e. the content on the card provides the "small talk" that takes place in a party setting).
- After each partner has shared their information, they trade cards and partner with someone else. The "small talk" continues for a preset amount of time or until all students have heard and/or read most of the cards.
- At this point the teacher can retrieve the cards or leave them with the students so they can use the information in the lesson. For example, as the teacher is teaching the lesson, using pre-planned questions she can solicit the information from students that is contained on the cards. In this way, the students play a more active role in the process.

K-W-L Chart

- This method can be used to introduce a topic, ascertain what students' already know about a topic, or to activate students' prior knowledge, etc.
- This can be used as a whole class activity (i.e. with the teacher or student recording what the students volunteer in a chart on the board) or individually as students complete the chart themselves.
- Either draw the following chart on the board, have students create the chart in their notebooks, or print for students to use:

What I ***WANT*** to know (or wonder) about the topic	What I already ***KNOW*** about the topic	What I ***LEARNED*** about the topic

- To activate students' prior knowledge, begin by asking them what they already **K**now about the topic and list it in the appropriate column. This can be followed by having students share what

they Know with the class or with a partner.

- To create interest or anticipation in the new topic, then have them identify questions they have on the topic, items they would like clarified, etc. (i.e. **W**ant to know)
- After the topic has been discussed/completed, students return to the chart and record what they have **L**earned and compare this with the other two columns; did they learn anything new? Were their questions answered?
- This strategy works best for research projects and for activities where students will be reading on their own. It is also a good strategy to use to introduce a topic.

A modification to K-W-L is the B-K-W-L-Q which follows the same steps and is used to help build some background knowledge of the topic. Two steps are added to the activity. B is for building background knowledge. Q is for new questions after the initial reading and prior to further reading.

1. The teacher reads a selection to students related to the topic, shows a short video, or leads a quick discussion on the topic. This provides students with some background knowledge related to the topic and will help ensure every student can list something in the K column. In the B column students describe or draw something about the topic.
2. Students' list new questions (Q) they have concerning the topic after the initial introduction and prior to studying the topic.
3. Then students use the K-W-L activity as outlined above.

Three-Step Interview

- Three-step interviews can be used as an introductory activity or as a strategy to explore concepts in depth. It is a strategy that is very effective when students are solving problems that have no specific right answers.
- This strategy helps students personalize their learning and listen to and appreciate the ideas and thinking of others. The "interviewer" has to engage in active listening and then paraphrase the comments of the "interviewee".
- There are three steps involved in this process.
  - In step one the teacher presents an issue or topic about which varying opinions exist and poses several questions for the class to address.
  - Step two, one of the students assumes the role of the interviewer and the other becomes the interviewee. The interviewer asks questions of the interviewee to elicit their views or ideas on the issue/ topic, within a specified time period. The interviewer paraphrases the key points and significant details that arise.
  - Step three, after the first interview has been completed, the students' roles are switched.
    Example: after viewing a video on an environmental issue, interviews can be conducted to elicit student understanding or views.
    Example: after reading about or discussing a concept or issue, students could engage in the interview process to clarify their understanding.
  - Each pair of students can team up with another pair to discuss each other's ideas and to share interesting points that were raised.
- After each student has had a turn, the pairs can be invited to share points that they found interesting with the class. After all interviews have been done, the class writes a summary report of the interview results. This could be done individually or as a whole group activity.

Roundtable

- The Roundtable is a useful strategy for brainstorming, reviewing, or practicing a skill.
- Students are arranged in a group of 4 to 6. Each group is provided with a single sheet of paper and pen. The teacher poses a question or provides a starting point.
- Students take turns responding to the question or problem by stating their ideas aloud as they write them on the paper. It is important that the ideas be vocalized for several reasons:
    - silence in a setting like this is boring;
    - the other team members are able to reflect on the thoughts of the other students;
    - greater variety of responses will result because teammates learn immediately that someone has come up with an idea that they might have been thinking of; and
    - by hearing the responses said aloud students do not have to waste valuable brainstorming time by reading the previous ideas on the page.
- Team members are encouraged not to skip turns. However, if their thoughts are at a standstill, they are allowed to "Pass".
    - Example: The teacher could display a picture of an ecosystem and ask what are various food chains found within the ecosystem of the picture. One student writes a food chain on a piece of paper then passes the paper to other members of the team for them to write a food chain that they see in the picture. Students continue to pass around the paper until the teacher stops the activity or until a group runs out of answers.
- Roundtable is most effective when used in a carefully sequenced series of activities. The brainstorming can reinforce ideas from the readings or can be used to set the stage for upcoming discussions. The multiple answers encourage creativity and deeper thinking among the team members.

Write Around/Marathon Writing

- This strategy can be used as a way to activate prior knowledge.
- Students are arranged in a group of 4 sitting at a table. When the teacher gives the signal, each student begins writing about the assigned topic. They continue writing until the teacher gives the signal to stop (1 to 2 minutes). Students are to stop immediately; in the middle of a sentence or even in the middle of a word.
- Students exchange their paper with the student to their immediate right. At the signal, students read what was written and continue from where the previous student left off. They write until the teacher gives the signal to stop and pass papers to the right (2 minutes).
- This continues until all four students have written on each other's paper. Additional time should be given to the 3rd and 4th pass as there will be more to read each time the paper is passed along.
- Then the group discusses the content of each paper and chooses one paper to represent their group's collective idea on the topic. One member from each group will read their chosen paper to the class.

Give one – Get one

- This strategy is great for activating prior knowledge or for reviewing a topic.
- If used to activate prior knowledge and to build background knowledge:

    Have students fold a piece of paper in half.

    Starting with the left column, students will list as many ideas as they can about a particular topic (2-3 minutes).

    Then students will circulate throughout room and exchange ideas. Each student takes a turn telling what is on their list. Then they will "give one" idea and then "take one" from their peers (i.e., an idea that was not on their individual list). (5 minutes)

After students have exchanged ideas with 3 others, discuss the ideas as a group. Teacher could call on each student to give an idea from their list, not repeating any already given. The teacher would record each idea on the board or flip chart; students would add any new ideas to their list.

- If used as a summary or review after a topic has been covered, follow the same basic steps. As students will be able to generate more ideas/items, a slightly longer time frame could be used.

Active Learning Strategies

Quiz-Quiz-Trade

- This activity is often used after several lessons have been covered or at the end of a topic or unit to review and reinforce what has been covered in class.
- Questions and answers, based on the information from the lessons, are written on index cards or pieces of paper.
- To set this up, the teacher has to create a set of question and answer cards on the material that was covered. (Alternatively, students can create the cards). You need at least one of these cards per student. It's good to have extras. Early on in a unit, you may need to make duplicate cards to ensure each student has a card.
- This is a partner activity and requires students move around the classroom. (See Think-Pair-Share for cues to help students decide who goes first).
- To start the Quiz Quiz Trade, hand out one card to each student, so that each student has a question and the answer. Then ask all students to stand up and partner with another student.

  In each pair:

  QUIZ: Student #1 quizzes Student #2. If Student #2 answers correctly, Student #1 gives positive feedback. If Student #2 answers incorrectly, Student #1 says "It's okay" and provides the correct answer.
  QUIZ: Then Student #2 quizzes Student #1.
  TRADE: After they both quiz each other with their questions, they switch/trade their questions and go on to pair up with someone else. This process is repeated at least 5 times and then students return to their places.

Think-Pair-Share

- This is a very straight forward strategy that allows students to engage in individual and small-group thinking before they are asked to answer questions in front of the whole class. The result is that student answers are more detailed and accurate.
- The Think-Pair-Share strategy also provides students with an opportunity to process the information they have received and to make it more meaningful.
- The Think-Pair-Share strategy can be used before the topic is introduced to assess how much students already know, to remind them of material already covered, or to get them thinking about the topic. T-P-S can also be used at anytime to check for understanding, to break up long periods of sustained activity, or whenever it is helpful to share ideas.
- In its simplest form, T-P-S works as follows:
  1. The teacher poses a question to students and gives them some time to independently think of their answer (usually 30 to 60 seconds).
  2. After students have had time to think of their answer, they partner with a nearby student and discuss their responses or ideas to the questions or problem that was posed.
  3. During the discussion, students have chance to verbalize their understanding, confirm what they understand, or determine what they do not understand.

- There are ***three variations*** to this procedure: the teacher may set time limits for each student to talk while the partner listens; the teacher may have students write their thoughts down before they discuss with their partner (these can be collected); the teacher can assign or vary partners to keep students from interacting with the same students or to ensure all students excluded by their peers.
- After students have discussed their thoughts/ ideas with their partner, they can be asked to share with the whole class. Students could also be asked to share something interesting that their partner said that increased their understanding or appreciation of the topic/ issue.
- To ensure little time is lost as students decide who will begin the sharing, the teacher can use a variety of cues to help them decide. For example the teacher could say: "the tallest person will start", "the person with the most/ least jewellery on will start", "the person with the longest/shortest hair will start", "the youngest/oldest person will start", etc.

For more information on how this strategy can be modified and implemented in a variety of subject areas, refer to http://olc.spsd.sk.ca/DE/PD/instr/strats/think/.

Two-minute Review

- This is a variation of the Think-Pair-Share strategy and provides students opportunity to process new information (time can be varied to suit the content).
- To use this approach, stop any time during a lecture or discussion and allow teams or pairs two minutes to review what has been said with their group.
- Teachers could set this up by saying "turn to the student next to you; each of you take 1 minute to review what we just discussed for the past 10 minutes; assume your partner was out of the room and missed what we talked about (or wrote notes on); summarize the information; your partner will listen to you and when it is their turn they will also summarize, including anything you left out; I'll announce when 1 minute has passed and when to switch". (See Think-Pair-Share for cues to help students decide who goes first).
- Another way to use this method is to arrange students in groups of 3 or 4. When the two-minute (or three minutes for groups of 3) review starts, group members can ask a clarifying question to the other members or answer questions of others. (e.g. after discussing a multiple step process like the water cycle, students can form teams and review the process or ask clarifying questions.)

Numbered Heads

- The teacher assigns student to a team of four.
- Each member of the team is given a number of 1 through 4. The team is given a question to answer.
- The team works together to answer the question ensuring that all members of the team know the answer and can verbally answer the question.
- The teacher calls out a number (e.g. "number three") and each student with #3 is required to give the answer. The teacher can vary which "number" answers from each group.

Inside-Outside Circle

- In this activity students are divided into two groups. One group (min. 3 students) forms an inside circle and the second group forms a circle around them (the outside circle). The strategy is used to encourage discussion between the students.
- The teacher poses a question, which the students are to discuss, brainstorm about, etc.
- Students think about how they will respond to the question and then the person on the inside of the circle tells the person on the outside of the circle their response. Once they finish sharing they say "Pass". Then the person on the outside shares their ideas, or extends the inside person's comments.

- Then (at the teacher's direction) the outside circle rotates one position to the left or right. In this way the students will have a new person to discuss the same (or a different) question with.

Jig Saw

- This strategy promotes sharing and understanding of ideas and textual material. In this strategy the teacher divides a project, piece of reading (e.g. an article), or other activity, into 3 to 5 parts.
- Next students are arranged into groups of 3 to 5 depending on the class size and the project they are undertaking. This is their Home Group. Some groups may have duplicate numbers if there is an odd number of students in the class.
- Each student in each Home group is assigned a number: 1,2,3, 4, or 5. Have all the students with the same number reassemble into "Expert" groups.
- The students gather in their "expert groups" to process or read selections specific to the assigned topic. Students are to read, recall, reread, take notes, construct graphic organizers for the main ideas and details, and create any visuals they could use to teach others about the topic. The members of the Expert group work to become "experts" on that topic/aspect.

  For example, if an article had four main sections, home groups of 4 would be created. Each member of the group would be assigned a number and a section of the article corresponding to their number. Expert groups are formed in which all members will read the section, discuss it, ensure they all understand it, create notes, examples, etc, to ensure they understand it completely. The time devoted to this will depend on the difficulty and complexity of the article.
- After the expert groups have read, summarized, and have a complete understanding of the information, they return to their "Home" group. The #1 Experts teach the "Home" group about the topic/section they were assigned. Then #2, #3, #4, etc, Experts teach the group about the topics they researched.
- After all the "experts" have finished teaching the group, the home group will have all the detail and information on the topic as if they had completed the assignment individually.

Refer to http://www.jigsaw.org/steps.htm or http://olc.spsd.sk.ca/DE/PD/instr/strats/jigsaw/ for more information on how to make the most effective use of this strategy.

Round Robin Brainstorming

- In this strategy, the class is divided into small groups of 4 to 6 students per group with one person appointed as the recorder.
- The teacher poses a question with many possible answers and students are given time to think about answers.
- After the "think time," members of the team share responses with one another in round robin style. The recorder writes down all the answers of the group members.
- The person to the left of the recorder gives their answer and the recorder writes it down. This is similar to Roundtable except that one person records the responses.
- Each person in the group in order gives an answer until time is called.

  Example: The teacher could display a picture of an ecosystem and ask what are various food chains found within the ecosystem of the picture. One student is the recorder and writes all of the groups answers on a piece of paper. This strategy continues until the teacher stops the activity or until a group runs out of answers.

  Example: The teacher could ask students to list the pros and cons that a particular practice has on the environment.

Summary & Synthesis

Mind Maps®:

BACKGROUND & RATIONALE

The human brain works both linearly and associatively (i.e. by comparing, integrating and synthesizing) as it works to make meaning. Association plays a key role in nearly all our mental functions. "Words" themselves are no exception. Every single word or idea has numerous links attaching it to other words, ideas and concepts.

Mind Maps, developed by Tony Buzan (http://www.mind-mapping.co.uk/), are an effective method of note-taking and for the summarization of information, as well as being useful for the generation of ideas by associations. Mind maps help students order and structure their thinking, clarify their ideas, as well as make sense of information, by allowing them to create a physical representation (map) of the words and/or concepts. Because of the large amount of association involved, mind maps can be very creative and often tend to generate new ideas and associations that have not been thought of before. Every mind map will be personal to the person who created it; no two mind maps on a particular subject will be identical. The main difference between mind maps and concept maps is that a mind map has only one main concept, whereas a concept map may have several.

Once created, mind maps provide a way to quickly review what was taught in the lesson/topic/unit. Often it is possible to refresh the information in your mind just by glancing at the map. In the same way, mind maps can be effective mnemonics because we will remember the shape and structure of the map we created and this can give us the cues we need to remember the information within it. This occurs because we engage much more of our brain in the process of assimilating and connecting facts (i.e. when we mind map), compared with conventional notes.

To make a mind map, use a minimum of letter sized paper, oriented in the landscape position and follow the following steps (summarized from Tony Buzan's "How to Make a Mind Map" available at http://www.mind-mapping.co.uk/).

1. Start in the centre. At a minimum, put the topic title in the centre of the page and draw a circle around it. If possible, create an image of the topic you are mapping (e.g. draw a globe if your information is about the earth; draw a river if your information is about rivers, etc).
2. The main points will be arranged on lines that radiate out from the central topic. Each line represents a key idea that will be further delineated. There is one line for each key idea and it is to be drawn freehand. Make these lines thick and curved.
3. Use at least three colours for the lines and the associated text.
4. Limit the textual component to single words or short phrases (maximum 3 words long).
5. Using CAPITAL letters, PRINT the key point these on these lines. This is the first level of information about the topic you are mapping.
6. Add a second level of information to the key idea by adding lines to the key idea line. Add as many of these second-level lines as necessary to describe the key point. Remember, use only single words and at most, 2- or 3-word phrases. Subdivide these second-level lines further as necessary (i.e. make third- and forth-level lines) to explain or clarify the ideas/concepts.
7. Second-level lines are thinner than the main idea lines. Continue to print the words but these do not need to be capitalized. You may want to bold, underline, or capitalize specific words for emphasis. Continue to add as many sub-level lines as necessary.
8. Use images, sketches, or symbols as much as possible. The image should be meaningful to you and should convey information about the text (e.g. if the topic is "birthdays" you might include a sketch of a birthday cake or present; if the topic is "Holidays" you might sketch a Christmas Tree, etc).

For more details refer to http://www.mind-mapping.co.uk/make-mind-map.htm or http://www.peterussell.com/MindMaps/HowTo.php.

Journaling

BACKGROUND & RATIONALE

We often think of journals as someone's personal thoughts written in an elegant, leather-bound book. While academic or classroom journals do contain the students' personal thoughts and feelings and as such, must be treated as confidential, these journals provide students with the opportunity to reflect and process new information or to share their understanding (or lack of) with the teacher. Journal entries can also be used to cause students to relate personally to a topic before instruction begins.

The greatest benefit to the teacher is the ability to gain insight on the students' thinking process as well as their understanding about the topics/concepts being addressed in the classroom. As such it provides an excellent opportunity to engage in Assessment FOR Learning. Through reading the students' journals, the teacher is able to ascertain what is causing problems for students, what they find exciting and interesting, any misconceptions they have, etc.

For the student, **journaling provides many benefits**. Perhaps the most important of these is to provide students with the opportunity to process new information. Processing occurs when students summarize or answer specific questions that are posed to them because writing helps students to clarify their thinking about what they have learned as well as to connect it to what they already know (all in a positive learning environment that is free of fear of criticism). In addition, journaling provides students with the opportunity to reflect on their personal values and goals, to engage in metacognition, and to chronicle their academic growth by reading past entries. For more detail on the benefits of journaling, refer to the work of Kathy Yorks (http://www.accessexcellence.org/MTC/96PT/Share/yorks.html).

Considerations before Implementation:

- ***Use of Instructional Time.*** Limit journaling activity to 5 to 10 minutes per class or incorporate into other activities such as "write-pair-share". Engage in shorter blocks of journaling throughout the lesson (e.g. think about the question/prompt for 30 – 45 seconds and write for 2 minutes and repeat several times during the lesson).
- ***Confidentiality.*** Students' thoughts and opinions, when expressed in a journal, must be kept confidential. Students should be provided with the option to fold over and staple any entry they feel is too personal to share (even with the teacher).
- ***Assessment.*** Journals should NOT be assessed towards the student's mark in the course. Teachers may opt to include "completion of journal activities" as an assessment item but not grade individual entries. Student journals provide teachers with an excellent Assessment For Learning tool. As the teacher reads the entry, it is important to provide positive feedback, to nudge students' thinking a bit further, to question, to teach or to re-teach. Where journal entries indicate a lack of understanding, the teacher should indicate that they are "off track" and that this will be addressed in class.

Implementing Journals

- Ensure students understand why journaling is important to their learning process and that they will not be graded in the traditional manner.
- Clarify that the journals and the entries are confidential. Students may fold over and staple any entry that they do not want the teacher to read. Students can opt to include journal entries in their portfolio.
- Refrain from simply asking students to make an entry in their journals. Assign specific activities or prompts to ensure students' journals are the most effective. Examples:

- Summarize the main points of the lesson
- Before a lesson starts, ask students to write what they already know or believe about the topic. After the lesson(s) is taught, as students to revisit what they originally wrote and make any changes they feel necessary to reflect their current understanding, beliefs, etc.
- Restate a concept or definition in your own words.
- Write a question about what they have learned so far.
- How do you feel about the topic? How do you think your best friend/parent/etc would feel about the topic?
- Explain how the new topic relates to a topic already discussed in class.

For more ideas of how to use journals at the beginning, middle, and end of a lesson check out the suggestions at http://712educators.about.com/cs/writingresources/l/bljrnlacademic.htm

The "What? So What? Now What?" Reflection Model

This is a three-phase model to promote reflection in learners and can be used as a journaling activity. As with any journaling activity, reflection is an essential component of new learning; some learning theorists believe that we do not learn from doing – rather we learn from thinking about what we do (i.e. making connections with what we already know).

- The "***What***" phase:
  - This relates to the substance of the activity, presentation, or event
  - While it leads naturally to interpretation, in this phase the learner should objectively report on what happened, what was presented, what was observed, etc (i.e. just the facts, no interpretation; describing in detail what they experienced or observed)
  - Questions that can be used to guide learners include: What happened? What did we do? What problem did we address/solve? What did you observe? What were the results of the event? What were the speaker's main points?
- The "***So What"*** phase:
  - In this phase, the learner analyses the event/presentation/activity to assess what it means to them, why it is important to them, or how they feel about what has been presented/observed
  - This is the true reflective part of the activity and may be difficult for some learners as it requires that they discuss their feelings as related to the event/information they have experienced
  - Questions that can be used to assist learners with this phase are: What did you learn? How did what you learned affect you personally? What "lesson" can you take away from the activity/presentation/information? How was what you learned (or experienced) different from what you expected? Can you relate this information to events/experiences in your "real life"? Are there any contradictions to what you previously believed about the issue?
- The "***Now What***" phase:
  - This is the process of taking lessons learned (or insight gained) and looking at how your attitude/view/understanding/etc has changed as a result of the new information and how you might want to change as a result
  - During this phase, the learner is encouraged to consider the broader implications of what they have learned, to consider the future, etc. Depending on the activity/presentation/event, learners could be encouraged to identify goals or changes they might want to make in their live to align with what they have learned
  - Questions that can be used to guide this phase include: How can we use what we learned to make a difference in the future? How are you contributing to the problem? What can you do to help address the problem? What factors will support/hinder you from reaching your goals or to incorporate changes in your life? What can I do to be part of the solution? What appears to be the root cause of the problem/issue? Are there community actions/activities in which I can become involved? What would you like to learn more about, related to this topic/

issue? What information can you share with your community or peers that might make a difference?

❖ While this can be used solely as a journaling activity, it can also be incorporated into small group or whole class discussions.

- For example, after a presentation or significant piece of information has been discussed in class, individuals could engage in the "What?-So What?-Now What?" activity.
  - After they have completed the "What?" section, teachers could have student share their main points with a partner (see "Two Minute Review below).
  - After the "So What?" phase, students could be asked to share their insight with a partner (see "Think-Pair-Share" below).
  - After the "Now What?" phase, students could be invited to share their thoughts/ insight/etc with the class (Note: student should not be required to share at this stage, as this portion of the activity will be deeply personal). Alternatively, students could be asked to share something their partner said that they found interesting or which they had not thought of before.

Conversation Circles

- This strategy is a great way for students to review and process the information from the lesson.
  - Arrange students in groups of three.
  - Each student is labelled "A", "B", or "C".
  - At the signal, "A" starts talking on the topic until the teacher gives the signal (about 45 to 60 seconds).
  - "B" picks up the conversation. "B" can continue with the topic where "A" left off, add more detail, give examples, or repeat what "A" said if they feel they have nothing new to add.
  - When the teacher gives the signal (45 to 60 seconds), "C" continues the conversation in the same manner as did "B". When the teacher gives the signal, the conversation can end or can go around again starting with "A". Less time might be given on the second pass.
- A related strategy is "wrap-arounds". Students stand in a circle of up to 5 students. Each student takes a turn telling:
  - Something they will use from information or activities learned in the lesson.
  - Something they will remember from the lesson.
  - Something that surprised or interested them in the lesson.

Exit Cards/Exit Passes/Exit Ticket

- This is a simple way to informally assess student learning and promote immediate individual responsibility for learning. Teachers can use these as assessment FOR learning, to identify topics/concepts students may have confused or which may have confused the student. The act of writing the exit card also provides the student with opportunity to synthesize or process the information presented during the lesson.
- They may be used at any grade level and in any subject.
- There are several versions of the exit card but each aims to give the teacher feedback about the learning that has occurred in the class. Instead of using cards, teachers could have students use sheets of loose leaf paper or 3-hole punched paper so the "cards" can be stored in a binder or folder.
  - ***Version 1:*** During lesson closure, distribute index cards and write their name on it. Then direct students to explain a certain point or concept from the lesson, summarize the lesson, write an answer to a question about the lesson, or to indicate a question they still have about the topic. Explain that this card is the exit pass from class, then stand at the door and collect

as students leave. Depending on what students have written, teachers may wish to make individual responses or if a theme comes up, this is something the teacher might want to address at the beginning of the next class. Detailed responses should be avoided; anything that requires a detailed response should be done in class or one-on-one. Students could keep the cards in their journal for quick review.

- ***Version 2:*** "Exit 3-2-1". Have the students list the numbers 3, 2, 1 on their paper leaving lines between each number. Assign a specific writing prompt/task for each number. Prompts will vary according to the content. The 3-2-1 prompts can be anything as long as they are related to the lesson, the next day's work, the unit theme, etc. Some examples are: "write down 3 things you learned, 2 questions you still have, and 1 connection you'd like to share"; "3 similarities between . . . , 2 predictions about . . . , 1 something else"; "3 observations you made while…, 2 connections you made between…, 1 question you still have"; "3 key ideas of the lesson/reading, 2 questions you want answered, 1 thing you didn't understand".