Think-Pair-Share

Overview: This strategy has students working on things first individually, then in pairs, and then as part of a large group. This progression builds student confidence in their responses and encourages individual accountability.

Step 1: Teacher poses a question, presents a problem, or asks students for a response
Step 2: Students respond individually, taking time to quietly think and write their own answer, reflection, or response.
**Step 3:** Students turn to a partner and share what they have written.
Step 4: Students share in the larger group

From: Angelo, T.A., & Cross, K.P. (1993). Classroom Assessment Techniques. San Francisco: Jossey-Bass.

One Minute Paper

Overview: This strategy involves students spending a minute or two writing a response to one or two specific questions. The questions can be general or specific.

Step 1: Teacher poses the question(s).
   General Questions could include:
   (i) What are some key things you learned about today's topic?
   (ii) What questions do you still have about this topic?
   Specific questions would focus on some particular aspect of the content
   (i.e. Summarize two conflicting views about global warming)
Step 2: Students write their responses.
Step 3: The teacher collects these and reviews them quickly to see where students are at in their learning. The questions could be used as part of the next class session.

From: Angelo, T.A., & Cross, K.P. (1993). Classroom Assessment Techniques. San Francisco: Jossey-Bass.

Concept Mapping

Overview: A concept map is a strategy that can be used to help students make connections between a number of pieces of information and ideas. It can be used to assess prior knowledge, organize information or ideas,
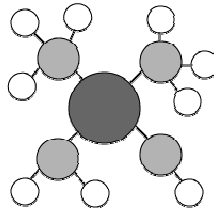
Step 1: Identify a central concept or idea and place it in the middle of the page
Step 2: Identify related information or ideas and connect them with lines.
Step 3: Describe the relationships between the information and/or ideas.

Graphical Organizers

Overview: Graphical organizers help learners organize information and/or ideas visually. They include timelines, charts, Venn diagrams, matrices, etc.
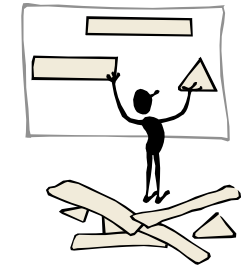
Step 1: Select the graphical organizer that best suits the information or ideas to be organized.
Step 2: Create a template for students
Step 3: Work with students to begin the process of arranging information/ideas into the organizer
Step 4: Have students use the organized information as a basis for part of an assignment, or for a test question.

For examples of graphic organizers, visit the Learning Strategies Database
http://www.muskingum.edu/~cal/database/general/organization.html#InfoOrgan

Focused Listing

Overview: This strategy can be used to find out what students already know about a topic or as a review. Students generate a list that meets certain criteria in terms of quantity and content in a specified time limit.

Step 1: Teacher identifies a topic or concept and parameters of the listing (quantity, content, time frame). Teacher prepares his/her own list based on these parameters

Step 2: Students generate a list.

The students lists are in some way compared with the teacher's list (i.e. teacher collects and review outside class; teacher posts his/her list and asks if there are things to add).

From: Angelo, T.A., & Cross, K.P. (1993). Classroom Assessment Techniques. San Francisco: Jossey-Bass.

Six Thinking Hats

Overview: This strategy encourages six types of thinking to generate a full spectrum of thought related to a topic or issue.

- White Hat Thinking – identifies facts and information
- Yellow Hat Thinking – examines all the positive aspects
- Black Hat Thinking – examines all the negative aspects
- Green Hat Thinking – considers innovative, off the wall ideas
- Red Hat Thinking – explores gut feelings and emotional reactions
- Blue Hat Thinking – thinks about the thinking process

Step 1: Teacher defines an issue or problem. Teacher presents the characteristics of each of the six hats.

Step 2: Teacher facilitates students in thinking about the problem or perspective from all six perspectives.

Step 3: Students are asked to use the information as part of an assignment or as the basis for a test question.

Source: de Bono, E. (1985). Six Thinking Hats. Boston: Little, Brown, and Co.

Card Sorts

Overview: Learners sort a stack of cards that contain pieces of information, parts of concepts, or other elements of the subject matter. The cards are sorted to achieve a specified objective (i.e. ranking, ordering, matching, prioritizing, sequencing, categorizing).

Step 1: Select an appropriate body of information.

Step 2: Create a master set of cards using a template. Create enough sets to have students working in two's or three's. Place each set in an envelope.

Step 3: Have arrange the cards appropriately.

Step 4: Have students compare their arrangement to a model, or use the arrangement as a catalyst for a higher-level activity.

Jigsaw

Overview: The strategy facilitates the processing of significant amounts of content in a learner-centred way.

Step 1: Divide learners into groups of 4-5.

Step 2: Give each group a specific area in which they are to become the "experts" (i.e. sections of text; different perspectives on an issue, different subtopics of a major topic).

Tip 1: Give each group something concrete to produce.

Tip 2: Communicate that everyone in the group must become an "expert"

Step 3: Re-group students so that each group has an "expert" from each of the areas.

Step 4: Have them apply their collective "expertise" to a specific problem or situation. Give them something concrete to produce.

K-W-L (Know, Want to Know, Learned)

Overview: KWL is a strategy where students identify what they know, want to know, and then learn as they work through text.
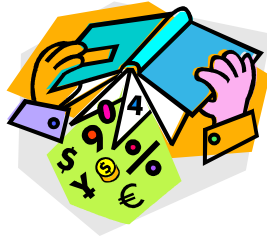
**Step 1:** Teacher prepares a KWL chart
Step 2: Students brainstorm everything they **Know** about the specified topic and record it in the K column.
Step 3: Students generate a list of questions about what they **Want to Know** about the topic in the W column of the chart.
Step 4: Students read the text and answer the questions in the W column. This new information is recorded in the **L (Learned)** column of the KWL chart.

Socratic Questions

Overview: In Socratic questioning, the instructor poses questions that lead students through a thinking process related to a topic.
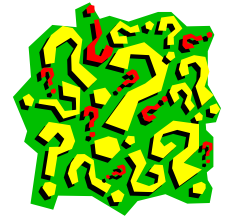
Step 1: Plan questions that direct learning and thinking about the content. Design questions that model the critical thinking process. Include open-ended questions that:
- Probe assumptions, reasons, evidence, implications, and consequences
- Promote clarification, hypothesizing, reflection, application, and analysis

Step 2: Pose the question and wait at least 5 to 10 seconds for students to think about the question and respond.
Step 3: Use further questions to understand students' responses and/or move their thinking forward on the topic.
Step 4: Summarize the learning periodically using visuals.

For more information on Socratic Questioning, visit the following link
http://www.uu.edu/centers/faculty/resources/article.cfm?ArticleID=73