

# Glossary of 229 Instructional Strategies

## **1. 3-2-1 (Three-Two-One)**

Writing activity where students write: 3 key terms from what they have just learned, 2 ideas they would like to learn more about, and 1 concept or skill they think they have mastered.

## **2. A-B-C Summarize**

A form of review in which each student in a class is assigned a different letter of the alphabet and they must select a word starting with that letter that is related to the topic being studied.

## **3. Acronym Memory Method**

Example: ROY G. BIV = Red, Orange, Yellow, Green, Blue, Indigo, Violet

[Enhancing School Success with Mnemonic Strategies](#)

## **4. Acting Out a Problem**

Students can act out mathematical, scientific, or social problems to improve their comprehension.

## **5. Action Projects**

A project where ideas learned through research are tested and applied in a real- world situation.

[ERIC as a Resource for the Teacher Researcher. ERIC Digest](#)

[Action Research - NCREL](#)

[Action Research and Standards of Practice for the Teaching Profession: Making Connections - Fran Squire](#)

## **6. Activating Prior Knowledge**

Helping learners connect to concepts about to be taught by using activities that relate to or determine the level of their existing knowledge.

## **7. Active Learning**

Any approach that engages learners by matching instruction to the learner's interests, understanding, and developmental level. Often includes hands-on and authentic activities.

## **8. Admit Slips/Exit Slips**

Teacher helps in synthesis of learning by reading anonymous student writings aloud to begin/end a class.

[Admit/Exit Slips](#)

## **9. Advance Organizer**

David Ausubel's guidelines for an abstract introduction. Designed to activate prior knowledge and help students become more receptive to the learning that is to follow.

## **10. Affinity**

A brainstorming approach that encourages less verbal members of a group to participate. First, all members of the group write responses to the problem or question on separate cards, then the cards are silently grouped by each member while the others observe. After a discussion, the agreed upon arrangement is recorded as an outline or diagram.

## **11. Affirmations**

Technique for motivating students by helping them believe they can "do things."

## **12. AGO (Aims, Goals, Objectives)**

Edward de Bono's strategy to help students analyze the reasons behind actions.

[AGO: Aims, Goals, Objectives](#)

## **13. Agreement Circles**

Used to explore opinions. As students stand in a circle, facing each other, the teacher makes a statement. Students who agree with the statement step into the circle.

#### **14. Air Drawing**

Students draw or motion in the air to demonstrate how they will carry out a procedure before they actually do so. Used in science labs, home economics, and classes where students use tools or musical instruments.

#### **15. Alternative Assessments**

Any of a variety of assessments that allow teachers to evaluate their students' understanding or performance. Examples include: performance assessments, portfolios, journals, and authentic assessments.

[Alternative Assessment - NCREL](#)

#### **16. Alternative Scenarios**

A creativity technique in which students consider alternative futures. Useful in writing to encourage students to consider several plots and endings for their stories before settling down to write. In social studies or science classes, this approach can be useful in helping students see possibilities, both for the present, and for their own futures.

[Alternative Scenarios](#)

#### **17. Analogies**

A thinking skill demonstrated by a student when he or she can give examples similar to, but not identical to a target example. For example, the Internet is analogous to the post office (because in both, multimedia information is delivered to specific addresses).

[Analogies](#)

#### **18. Anecdotes**

A motivational technique to encourage creativity or empathy students. Anecdotes can be about the teacher's life or excerpted from biographies to help students make real-world connections

#### **19. Anticipation Guide**

Checklist written by teacher to activate existing knowledge.

[Examples of Anticipation Guides](#)

#### **20. Application Cards**

At the end of instruction, students write a real world application for the knowledge on a small card and submit the card to the teacher.

#### **21. Argument Table**

Table used to organize logical statements. Used to teach logic in geometry and expository writing classes.

#### **22. Artifact Strategy**

The teacher presents carefully selected objects (artifacts) to the students, poses a problem, and allows students to collect information about the object, then formulate answers to the presented problem.

#### **23. Attributes**

Listing attributes of concepts.

[Attribute listing \(and variants\)](#)

#### **24. Authentic Assessment and Instruction**

Instruction which is meaningful to students. Focuses on higher order thinking, depth of knowledge, real-world applications, and social interactions.

#### **25. Authentic Questions**

Questions generated by learners in response to natural curiosity about the content. Questions spontaneously asked by learners without prompting by teachers.

#### **26. Before, During, and After**

A metacognitive approach to reading that guides students to explore text Before reading to activate prior knowledge, monitor comprehension During reading, and summarize the reading After reading.

[Before, During, and After - NCREL](#)

#### **27. Biopoems**

Poems written by students about any specific person or object (character in book, living or inanimate objects). To summarize student knowledge of topic.

## Bio-Poem

### **28. Blogs**

Blogs, also known as weblogs, are online journals that can be used by the teacher as a means of sharing thoughts, assignments, or resources; or blogs can be created by students for the purpose of reflection, intergroup communication, or to fulfill particular assignments.

[Using Blogs to Integrate Technology in the Classroom](#)

[Blogging Basics: Creating Student Journals on the Web](#)

### **29. Bloom's Taxonomy**

An approach to ranking learning by the sophistication or depth of learning required or accomplished.

[Activities at Various Cognitive Levels of Learning \(LoL\)](#)

[Bloom's Taxonomy](#)

[Applying Bloom's Taxonomy](#)

### **30. Book Club**

Groups who meet to discuss books.

[Book Clubs - Guides to Get You Started](#)

### **31. Brain-based Learning**

An instructional model based on the idea that instructional activities are more effective if they occur in an environment compatible with the way the brain is designed to learn.

[Brain-based Learning](#)

[Brain-Based \(Compatible\) Learning](#)

### **32. Brainstorming**

Group process where all ideas are accepted and recorded.

### **33. BrainWriting**

Creativity/problem-solving technique similar to brainstorming, but individuals write their ideas.

[BrainWriting](#)

### **34. Brochure**

Students research a topic then create a brochure to explain the topic to others.

### **35. Buddy System**

Pairing students during the first week of class to create pairs who are responsible to help each other get missing assignments due to absence, or watch out for each other during field trips.

### **36. Bulletin Boards (online or electronic)**

A web-based bulletin board or discussion board is a messaging system through which instructors and students can share information asynchronously.

[Extending the Classroom into Cyberspace: The Discussion Board](#)

### **37. C-4 Yourself**

Collaborative project strategy with four components: challenge, choice, collaboration, and creation.

### **38. C-SOOPS**

Acronym is useful to help students remember which aspects of their writing they should check when editing. C-SOOPS stands for: Capitalization, Sentence structure, Organization, Overall format, Punctuation

### **39. CAF (Consider All Factors)**

Edward de Bono's guided approach to decision-making that encourages individuals or groups to increase the number of factors or variables they consider before making a decision.

[CAF: Consider All Factors](#)

### **40. Capitalization/Organization/Punctuation/Spelling (COPS)**

Acronym is useful to help students remember which aspects of their writing they should check when editing.

### **41. Cartoons**

Reading or creating cartoons.

## Editorial Cartoons in the Classroom

### **42. Cause and Effect**

A pattern showing the relationship between two actions or occurrences.

#### Cause-and-Effect Writing Challenges Students

#### Cause and Effect (graphic organizer)

### **43. Chant**

Rhythmic text, repeated orally by individuals or a group to improve recall.

#### Songs for Teaching - Cheers, Chants, Raps, and Poetry

### **44. Character Analysis**

Character analysis in education has two meanings. The most commonly used is to describe activities designed to help students understand characters in their fictional reading. The second meaning is analysis of the student's own character with regard to ethics and values.

#### Character Analysis: The Search for Self

### **45. Character Education**

Activities designed to develop character, compassion, ethics, and responsibility in youth.

#### Character Education

#### Character Education - Free Resources

### **46. Characterization**

In critical thinking, characterization a form of analysis of critical features of an object or concept. In writing, characterization is the creation of believable fictional characters.

### **47. Cheat Notes**

Summarization technique. Students prepare a single note card of information they believe will be on test. Students are allowed to bring these notes to test. As students gain confidence, withdraw use of cards during test.

### **48. Checklist**

Checklists can be used to satisfy many objectives. They are useful as a memory tool or in encouraging creativity. They can also be used directly as assessments, or as a review tool in preparing for assessments.

#### Self-Assessment with Essay Question/Assignment (PDF)

### **49. Chronological Sequencing**

An instructional approach in which objectives are presented to learners in chronological order. Compare to: General-to-Specific, Known-to-Unknown, Part-to-Part-to-Part, Part-to-Whole, Part-to-Whole-to Part, Spiral, Step-by-Step, Topical, Unknown-to-Known, Whole-to-Part

### **50. Chunking**

A memorization or writing technique.

#### Five Simple Techniques to Improve Your Memory

### **51. Clapping**

Can be used as a signal BY the teacher or as a response FROM student to signal attention.

#### Clarification

### **52. Class Meetings**

When students are allowed to contribute to the operation of the classroom through class meetings, they have the opportunity to learn responsibility and decision-making skills.

### **53. Class Publication**

Students collaborate to create a written work to be published. Formats might include: magazine, newspaper, brochure, map, newsletter, or yearbook.

### **54. Classification**

When objects or concepts are classified, they are grouped with other, similar things, and the group is given a label. As a thinking skill, classification requires the application of knowledge. When students invent their own classifications, they practice discovery and invention along with being able to apply prior knowledge about the objects or concepts being classified.

Principles for Learning Concept Classification

#### **55. Closure**

Any activities which help students summarize key points learned and how the new knowledge relates to the objectives to be learned.

#### **56. Clustering**

Graphic way of organizing concepts proposed during brainstorming. Similar to concept-mapping.  
Clustering (graphic organizer)

#### **57. Co-op**

Cooperative learning method where teams work to prepare and present a topic to the whole class. Emphasis is on student selection (of topics, partners, division of labor, methods of presentation.)

#### **58. Coaching Model**

A model of instruction where the teacher is a guide and collaborator in the student's learning, not the sole director.

Cognitive Coaching

#### **59. Collaborative Learning**

Any kind of work that involves two or more students.

#### **60. Collages**

Students gather images (clippings from magazines, photographs, or their own drawings) and organize them to illustrate a concept or point of view.

Collages

#### **61. Collections**

Could be after class student project or could be classification of classroom collection (books or plants, for example).

#### **62. Collective Notebook**

A notebook maintained by a group in which each member of the group is expected to add an idea or observation during a specified time period (typically each day or each week). The contents of the notebook are regularly shared or published and discussed.

Collective Notebook (CNB)

#### **63. Community Work**

Student as volunteer. Students gain self-esteem and valuable experience through volunteer work.

Service Learning

#### **64. Completed Work Chart**

Make and publicly post a chart that lists all assignments along the top and students' names vertically along the left. When a student finishes an assignment, the teacher marks out the box for that assignment on the chart so students can quickly see if they are missing any work. In this approach, grades are never publicly posted, and if work is so late it will no longer be accepted, the box is also marked out. The chart is used only as a reporting mechanism to let students know about work they need to do that will still be accepted for credit.

Computation and Picture Books

#### **65. Concentration**

Pairs of cards are created (name of concept on one, description on other for instance). Students take turns. On each turn student chooses 2 cards from face- down arrangement. Students keep pairs which they correctly identify as matching.

[Concentrate](#)

### **66. Concept Map**

Any of several forms of graphical organizers which allows learners to perceive relationships between concepts through diagramming keywords representing those concepts. Originally developed by Joseph Novak in the 1960's.

[The Projectile Launch Project - Concept Maps Assignment](#)

### **67. Concept Matrix**

A two-dimensional approach to organizing information to solve problems or make connections between concepts.

### **68. Conferences**

Conferences are face-to-face discussions. Conferences may occur between teachers and students to enable teachers to give individual guidance, or they may be meetings between parents, teachers, and (sometimes) the student for the purpose of discussing the student's progress and issues relating to how to improve the educational experience for the student.

[Student-Led Conferences: A Growing Trend](#)

[Portfolio Practice \(student-teacher conferences\)](#)

[Parent-Teacher Conferences: Five Important Questions](#)

### **69. Conflict Chart**

Conflict charts are used in three areas of education. Most commonly, they are used as a graphical tool to help students understand the motivation of real people or fictional characters, but they are also used as a tool to insure that students are scheduled for exactly one class per period with no "conflicts," and finally, they are used as a social and behavior management tool to analyze interpersonal conflicts.

[SHORT STORIES : THE PUZZLE PIECES OF LIFE - Appendix B](#)

[Conflict Mediation](#)

### **70. Constructivist Models**

Based on the philosophy that knowledge cannot be transferred from the teacher to the student but must be constructed by each individual. Connections must be made between the student's existing conceptual network and the new material to be learned.

[Characteristics of Constructivist Learning & Teaching - Elizabeth Murphy](#)

[Constructivist Learning Model - Yager](#)

[Constructivism](#)

### **71. Context Clues**

When students encounter unfamiliar words, those words usually exist in an environment that includes many clues to word meanings. Meaning can be deduced or guessed by analyzing the context (the environment around the word).

[Chapter 3: Guessing Word Meaning by Using Context Clues](#)

### **72. Continuum**

Students take keywords and arrange them to form a continuum based on a variety of criteria. For example, "beaver, rattlesnake, deer, plankton" would be arranged as "rattlesnake, deer, beaver, plankton" if asked to arrange according to their preference for water and "plankton, rattlesnake, beaver, deer" if asked to arrange according to size.

[Continuum \(graphic organizer\)](#)

### **73. Contracts**

Contracts are formal agreements between individuals or entities. For a contract to be effective or valid, usually some action is performed by one party of the contract and in exchange the party performing the action gets something of value in return. In a school setting, the student typically performs the "service" of behaving in a desirable way, and if successful, the student is rewarded.

### **74. Cooperative Learning Model**

In this approach, students share knowledge with other students through a variety of structures. Cooperative Learning, as a phrase, originated in the 1960's with the work of David and Roger Johnson. True cooperative learning includes five essential elements: positive interdependence, face-to-face interactions, individual accountability, some structured activity, and team-building (group processing) skills. Similar to the "Social Learning Model."

[Cooperative Learning - Houghton Mifflin](#)

[Cooperative Learning - Huitt](#)

[What is collaborative learning?](#)

### **75. Corners**

Students are asked to select (by standing next to their choice) from four options which are posted in the corners of the room. Students then defend choices and listen to others' choices.

### **76. Critique**

Critiques can take several different forms. In writing, students read and react to a single written work by summarizing information and evaluating the source's correctness, relevance, or viewpoint. In the arts, works of art are critiqued either in writing or through a discussion, to help students develop analytical and interpretive skills.

[Guidelines for Critique or Position Paper](#)

[CS 561 - Written Critiques](#)

[Teaching Students to Critique](#)

### **77. CROWN**

A closure technique that encourages students to reflect on the completed lesson. CROWN = Communicate what you learned. Reaction. Offer one sentence that sums up what the whole lesson was about. Where are some different places you could use this? Note how well we did today.

### **78. Dance**

Dance can be used to teach coordination and discipline. Dancing in groups encourages students to become more observant and strengthens social bonds. Memorization of lengthy dance routines and the music associated with them stimulates parts of the brain involved with creativity.

### **79. Data Analysis**

Having students gather and analyze data can connect them to real-world problems and also improve their critical thinking skills.

[Collecting and Analyzing Data - The Soda Survey](#)

### **80. Data Gathering**

Students collect information in an organized way for use in statistical analysis, scientific research, or as support for arguments in social studies or other fields.

[How to Collect Data](#)

[Student Generated Data](#)

### **81. Days**

Special days during the school year when all activities center around a theme.

[Pi Day](#)

[Ten Great Activities for Grandparents Day](#)

[Storytelling Festival Day](#)

### **82. Debates**

Debates are arguments carried out according to agreed upon rules and used in the classroom to engage students and help them make connections to the curriculum.

[Great Debates \(PDF\)](#)

### **83. Demonstrations**

An activity to show students how things work or how they happen. Demonstrations are often used in science classes.

[Chemical Demonstrations in the Classroom](#)

### **84. Design Contests**

In addition to design contests within the classroom, many corporations sponsor design contests to encourage creativity and innovation at many levels of education.

[Student Contests and Competitions](#)

### **85. Devil's Advocate**

A dialectical approach in which the teacher proposes or defends an extreme or unpopular viewpoint. Used to initiate or stimulate a discussion or debate, For example, in a class on environmental issues the teacher might suggest that the nearby wetlands be drained because of the many mosquitos that breed there.

### **86. Dioramas**

A three-dimensional scene, usually created by the students, and acting as a miniature model.

### **87. Discovery Teaching**

Students begin learning with activity designed to lead to particular concepts or conclusions. Students acquire basic and advanced knowledge in random order.

### **88. Discussion**

Classroom discussions typically begin with the teacher describing the goal or purpose of the discussion. Sometimes discussions may be initiated by the posing of an open-ended question. Teachers can employ a number of techniques to encourage students to participate in discussions, including calling on specific people, or assigning students to be an "expert" or leader for various parts of the discussion. Many cooperative activities include a "small group" discussion as teams work together.

[Class Discussions - NCREL](#)

### **89. Discussion Board**

A web-based bulletin board or discussion board is a messaging system through which instructors and students can share information asynchronously.

[Extending the Classroom into Cyberspace: The Discussion Board](#)

### **90. Discussion Groups**

In the classroom, a discussion group is formed when a discussion is carried out by only a part of the class. Outside the classroom, discussion groups are composed of individuals with similar interests. These groups meet regularly to discuss a variety of literary or social issues.

### **91. Discussion Web**

A form of discussion that starts out with individual students formulating a response, then each student pairs with one other, then the pairs pair to form groups of four. Finally, when the groups have refined their answers, they share their thoughts with the whole class.

[Webs \(The Discussion Kind!\) in the Classroom](#)

## **92. Dissections**

To cut apart and analyze an animal, plant, device, or idea.

[Make a Frog Sandwich - Bowersox](#)

## **93. Dog Paddles**

A whole class, kinesthetic approach in which students raise one of two dog-shaped "paddles" in response to verbal prompts. For example, in a science class, paddles could be labeled "carnivore" and "herbivore." "Prime" and "composite" could be used in a math class. "Socialism" and "capitalism" could be the paddle labels in a social studies class, and so on. Dog-shaped paddles can be cut from construction paper and taped to folded card stock or rulers.

## **94. Dramatizing**

Students act out roles from stories or historical events.

## **95. Drawing**

Students can illustrate text they have read, draw diagrams of problems they have heard, or simply draw to stimulate creativity.

## **96. Dream Diary**

Useful creativity technique in art and writing classes. Students keep a diary of their dreams, then can use the images and ideas in their compositions.

[Keeping a Dream Diary](#).

## **97. Elaboration**

A thinking skill that involves adding to, improving, or completing an idea or process.

[Elaboration](#)

## **98. Emergent Literacy**

The concept that learning to read or write does not happen quickly but is built upon many small steps that occur over the course of the child's early childhood. The process begins with activities that happen naturally in the home such as talking with and reading with the child, then continues in the classroom with more

## **99. Error Analysis**

Error analysis takes two basic forms in the classroom. In the most common form, teachers analyze the errors students make (in mathematical computation, grammar, language, literature interpretation, and so on) and use that analysis to guide further instruction. In science classroom, some teachers teach students to analyze experimental errors to improve critical thinking skills.

## **100. Experimental Inquiry**

As a Meaningful Use Task it includes observation, analysis, prediction, testing, and re-evaluation. As a variation of inquiry, experimental inquiry involves generating and testing hypotheses to explain phenomena.

## **101. Experiments**

Tests to demonstrate or discover something.

[Skill Handbook : Practicing Scientific Processes](#)

## **102. Facilitative Questioning**

To "facilitate" means to help another person accomplish something. Facilitative questioning is an approach where a teacher poses open-ended questions to the student to allow them to explore ideas that may be complex or emotionally difficult. In writing classes, the purpose of facilitative questions is to allow the teacher to give assistance to the students without actually contributing new ideas to the work being written. In counseling, the purpose of facilitative questions is to allow the student to generate their own solutions to problems or tasks without being unduly

influenced by the counselor's ideas. Facilitative questioning is used most often in situations where there is no right answer but the solution is dependent on what is best for the individual.

[Adult Bullying: Examples of useful facilitative questions](#)

### **103. Field Guides**

A useful student project is to guide students in the creation of a field guide. Field guides typically provide information that would be needed outside the classroom in the study of such diverse fields as plants, animals, architecture, cultures, or business practices. Normal components of a field guide include: common names, formal names, definitions, graphic illustrations, explanations of the range (where you expect to find things), relevant dates, key facts, warnings, and "interesting notes."

[Create a Field Guide of Local Plants](#)

### **104. Find the Rule**

Students are given sets of examples that demonstrate a single rule (like "i before e except after c.") and are asked to find and state the rule.

### **105. Find Your Partner**

A method for assigning students to groups and at the same time reviewing previous concepts. Equations, sentences, or questions and answers are written on a single piece of paper, then the parts of the sets are cut apart. The parts are distributed to students who compare papers with other students until they find their match.

### **106. Finding and Investigating Problems**

One key element of scientific research is finding and investigating problems. Exposing children to real life data and asking them to "create" problems from this data can result in more meaningful problem-solving and a deeper understanding of "what science is."

### **107. Flash Cards**

Traditional flash cards are note cards with a question, problem, or fact on one side, and the answer or a related fact on the other side. Flash cards can be used by individual students for independent practice, or can be used by pairs of students to practice as a team. More recently, online flash cards have appeared on the Internet. Online flash cards take many forms, but typically include either a box where you can type in your answer, or have sets of answers to choose from.

[Flashcard Exchange](#)

[Printable Sign Language Flash Cards](#)

### **108. Flow Charts**

Flow charts are graphical depictions of processes or relationships. Typically flow charts include icons showing particular processes or steps, and arrows indicating paths.

[Flow Charts](#)

### **109. Graphic Organizer**

Graphic organizers are visual frameworks to help the learner make connections between concepts. Some forms of graphic organizers are used before learning and help remind the learner of what they already know about a subject. Other graphic organizers are designed to be used during learning to act as cues to what to look for in the structure of the resources or information. Still other graphic organizers are used during review activities and help to remind students of the number and variety of components they should be remembering.

[Graphic Organizers that Support Specific Thinking Skills](#)

[Graphic Organizers - NCREL](#)

[Graphic Organizers - Index](#)

### **110. Group Investigation**

The class is divided into teams. Teams select topics to investigate, gather information, prepare a report, then assemble to present their findings to the entire class.

[Group Investigation](#)

### **111. Group Work**

Any method involving two or more students.

[Structured Learning Team Group Roles](#)

[Team Expectations](#)

### **112. Group Writing**

Students work in teams of two or three to brainstorm, write, and edit a single document.

### **113. Guided Imagery**

Students are helped to visualize through daydreams "structured" by the teacher.

### **114. Guided Practice**

Guided Practice is a form of scaffolding. It allows learners to attempt things they would not be capable of without assistance. In the classroom, guided practice usually looks like a combination of individual work, close observation by the teacher, and short segments of individual or whole class instruction. In computer based or Internet based learning, guided practice has come to mean instructions presented on the learner's computer screen on which they can act. This action may be to perform some task using a program that is running at the same time, or it may be to interact with a simulation that is embedded in the program or web page.

[Guided Practice](#)

### **115. Higher Order Thinking Skills (HOTS)**

In the simplest sense, higher order thinking is any thinking that goes beyond recall of basic facts. The two key reasons to improve higher order thinking skills are first, to enable students to apply facts to solve real world problems, and second, to improve retention of facts. In addition to the basic meaning of "higher order thinking skills" HOTS is also used to refer to a specific program designed to teach higher order thinking skills through the use of computers and the Socratic Method to teach thinking skills.

[Higher Order Thinking Skills \(HOTS\) Program](#)

[CHAPTER I H.O.T.S.: Higher Order Thinking Skills Project](#)

### **115. Idea Spinner**

Teacher creates a spinner marked into four quadrants and labeled "Predict, Explain, Summarize, Evaluate." After new material is presented, the teacher spins the spinner and asks students to answer a question based on the location of the spinner. For example, if the spinner lands in the "Summarize" quadrant, the teacher might say, "List the key concepts just presented."

### **116. Illustrated Talks**

A form of lecture in which the speaker tells how to do something, or shares information with the audience, but does not "show" the audience how to do anything. The talk is supported by visual aids like charts, diagrams, and photographs.

### **117. Illustrating**

Using pictures or diagrams to explain or decorate.

[Tips on Illustrating Your Stories - by Pam Yourell](#)

### **118. Interdisciplinary Teaching**

Traditional elementary and secondary classrooms divide instruction into categories (disciplines) such as "reading," "math," and "social studies." Interdisciplinary teaching involves any effort on

the part of an instructor to design learning activities with products and activities to related to more than one discipline.

#### What is Interdisciplinary/Cross-Curricular Teaching?

#### **119. Inventory Questioning**

Inventory questions are designed to collect information about students' interests, to activate prior knowledge, or to help students become aware of their existing beliefs and background. Often used when dealing with controversial issues, or in the form of a "personal inventory" to explore emotional problems or limitations.

#### SAMPLE INTEREST INVENTORY QUESTIONS

#### **120. Inverted Pyramid**

A writing format in which the most important information is presented first, followed by the next most important information, and closing with the least important information. Most commonly used in news reporting, but useful in teaching students to learn to prioritize information. Also called the Journalism Model.

#### Inverted pyramid story format

#### Inverted Pyramid Checklist

#### **121. Jeopardy**

Like the television game. Many variations (individual or team competitions). Board with "answers" is prepared in advance (for overhead or on large cardboard sheet). Students respond with acceptable "question."

#### **122. Jigsaw**

Cooperative activity. The basic steps include: reading, meeting with expert groups, report back to main team, demonstrate knowledge through a test or report.

#### **123. Journal**

A form of writing. Typically done for a few minutes each day. The writing is done in a notebook and is often used to encourage reflection or exploration of ideas of interest to the students. Journal writing is typically not graded, and in some instances, is not read by anyone but the student. In other instances, the journal can be used to establish an ongoing written dialog between the student and the teacher.

#### JOURNALS

#### Journals in the Classroom

#### **124. Jumbled Summary**

Teacher presents randomly ordered key words and phrases from a lesson to students. Students put the terms and phrases in a logical order to show understanding.

#### **125. Keyhole Strategy**

A writing format in which the author begins with the main idea, narrows the idea until the end of the first paragraph, uses the "body" of the writing consists of well-rounded paragraphs, then in the last paragraph, builds to a broad conclusion. Diagrammed, the format looks like an old-fashioned keyhole.

#### The Keyhole Essay

#### **126. Keys**

In classes where students are allowed to check their own homework, teachers can provide a notebook containing detailed answer keys demonstrating how to do complex problems or examples of desirable answers. Sometimes used in Independent Reading Programs or Mastery Learning to allow students to learn at their own pace. The "Answer Key" books are usually kept

on the teacher's desk or a table nearby to ensure that students try problems on their own and only check their answers under supervision.

### **127. Keyword Memory Method**

In the keyword method, students generate keywords that are similar to the concepts to be memorized, then put the keywords into an arrangement that can be mentally "pictured." For example, given the task of memorizing "St. Paul is the capital of Minnesota," the student would first break up the phrase into five related words: saint paul cap mini soda." Finally the student would image their favorite "Paul" with a halo as a cap and drinking a very small soda.

[Mnemonic Instruction - Keyword Mnemonics](#)

[Keywords: A Memorization Strategy](#)

### **128. Learning Contract**

A form of individualized, active learning, in which the student proposes a course of study to satisfy an academic requirement and a teacher checks and approves the contract. The student typically works independently until assistance is needed from the teacher, at which point it is the responsibility of the student to ask for help. This is becoming more common in universities and in distance learning. A second variety of learning contract is sometimes undertaken with elementary or secondary students in which the teacher takes a more active role and the function of the contract is to focus the student's attention on specific skills or concepts to be learned.

[Learning Contracts](#)

[Learning Contract Generator](#)

### **129. Learning Labs**

A learning lab is an environment that provides tools and educational support to enable learners to explore content at their own pace. There are many varieties of learning labs. Computer learning labs typically consist of rooms full of networked computers or work stations along with at least one human assistant. Math learning labs may be nothing but an empty classroom with a few reference books and one or more math tutors who roam the room to assist learners as they work. Language learning labs typically provide audio playing and recording equipment to allow learners to listen to the language they are learning.

### **130. Learning Stations**

Individual stations where individual or paired students explore resources. Designed to extend knowledge introduced in whole group instruction.

### **131. Learning Style Inventory**

Assessments taken by students to learn about their learning styles and preferences.

[Index of Learning Styles Questionnaire](#)

[Keirsey Temperament Sorter](#)

### **132. Learning Styles**

While each of us learns differently, we can categorize an individual's strength and weaknesses for a number of different factors which affect the way we learn. It is possible to refer to someone as a "visual learner" or a person who prefers "step-by-step" directions. By assessing, and then planning for each student's individual learning style, a teacher can improve the chances that each student will learn.

[Keirsey Temperament Sorter II - Online Personality Test](#)

[Learning Styles](#)

[Learning Modalities](#)

### **133. Link System of Memorization**

Link one item to another to form a mental link. Uses visualization.

#### **134. Literature Search**

As a part of inquiry or research, students often need to search existing literature to find what is currently known about a topic. Libraries have specialized search tools students can use for a variety of topics. Internet searches typically use a combination of keyword searches on the Internet along with following a trail of references from known articles to find related work by known authors.

[How to conduct a literature search](#)

#### **135. Luck of the Draw**

All student's names are put into a container. At the end of class, a student's name is drawn at random from the container. At the beginning of the next class the student whose name was drawn is required to present a 3-5 minute review of the previous day's lesson.

#### **136. Metaphors**

Metaphors can be used as examples by teachers, or students can form metaphors.

#### **137. Mix/Freeze/Group**

In this activity, the teacher poses questions to which the answer is a whole number and the students (as a group) answer the question by moving through the classroom to form groups of that size. For example, if the question were, "How much is 24 divided by 8?" the students would cluster to form groups of 3.

#### **138. Mnemonics**

Any of several techniques or devices used to help remember or memorize names or concepts.

#### **139. Mock Trials**

Students learn about the legal system by assuming the roles of lawyers, witnesses, and judges to act out hypothetical legal cases.

[Mock Trial Society - Home page](#)

#### **140. Models**

Many forms of models are used in the classroom. In the concrete sense, teachers can provide three-dimensional objects (such as globes or models of molecules) for students to explore. Models can also be conceptual. The idea that the Earth revolves around the sun is part of a model of the the structure of the solar system.

[Building models enhances understanding](#)

#### **141. Most Important Word**

A during reading strategy in which the teacher reminds the students to think about the "most important words" for a particular reading assignment. The teacher gives some examples of some important words, then students work in groups to identify others.

[Most Important Word](#)

#### **142. Muddiest Point**

A question used to stimulate metacognitive thinking. Students are asked to name or describe the concept they understand the least (their muddiest point).

[Sample Form: The Muddiest Point](#)

[The Muddiest Point \(used in e-mail\)](#)

#### **143. Multiple Solutions**

Require students to find all acceptable solutions, not just the best.

#### **144. Nature Walks**

A form of field trip in which students explore and observe objects in their natural environment.

[Nature Study - \(Charlotte Mason's Cure for Tired Text-taught Tots\)](#)

[Go For a Bird Walk](#)

#### **145. Olympiads**

Olympiads are regulated contests to stimulate interest and enthusiasm for a particular topic.

[International Science \(and Math\) Olympiads](#)

[Mathematics Olympiad Learning Centre](#)

[International Geographic Olympiad](#)

#### **146. One Sentence Summary**

Students are asked to write a single summary sentence that answers the "who, what, where, when, why, how" questions about the topic.

#### **147. One Word Summary**

Select (or invent) one word which best summarizes a topic . Write 2-3 sentences justifying the selection of the summary word.

#### **148. Painting**

While typically restricted to elementary classes or to art classes at the higher levels, painting can be used in a wide variety of classes to encourage creative thinking and problem-solving. At all levels, planning and executing a painting involves the integration of many skills and promotes the development of higher order thinking.

[Painting encounters](#)

#### **149. Pantomime**

The expression of ideas using only movement and gestures. One form of pantomime commonly used in the classroom is the narrative pantomime. In narrative pantomime, the leader (usually the teacher) reads a passage of text and the others in the groups act out the passage to demonstrate the ideas using their movements.

[NARRATIVE PANTOMIME](#)

#### **150. Paradoxes**

Paradoxes are statements, or sets of statements, that appear to be contradictory. Using paradoxes in the classroom can encourage problem-solving, critical thinking, and logical thinking skills.

[Welcome to the Hotel Infinity!](#)

#### **151. Paragraph Shrinking**

Partners read in pairs. For the first paragraph, one reads and the other summarizes by stating the main idea of that paragraph. The partners then switch roles for the second paragraph.

#### **152. Part-to-Part-to-Part**

An instructional approach in which objectives are presented to learners repeatedly, but each time parts of the curriculum are presented deeper concepts are explored.

#### **153. Part-to-Whole**

An instructional approach in which objectives are presented to learners beginning with parts of the curriculum, then relationships between the parts are presented, and finally learners can incorporate the parts as a whole.

#### **154. Part-to-Whole-to-Part**

An instructional approach (often used in reading) in which objectives are presented to learners in chronological order.

#### **155. Partner Discussion**

Any discussion involving exactly two people. This is a flexible strategy that allows the maximum number of students to verbally express their ideas at the same time. Typically, partner discussions are prompted by a single question, but longer partner discussions can occur if the partners are assigned a larger project.

### **156. Partner Reading**

Pairs of students read together and the listener corrects the active reader. One special form of partner reading is called "Reading Buddies." Reading buddies are pairs whose members are several years apart.

### **157. Pattern Forming**

The ability to recognize and create patterns is central to many different fields. The use of lessons with "pattern forming" activities is typically started in pre-schools and continues into higher education.

[Bear Mini-Unit, Lesson 4: Patterning with Bears](#)

### **158. Peer Questioning**

Students ask questions of each other. Often occurs during student presentations.

[Guided Reciprocal Peer Questioning](#)

### **159. Performance Assessments**

Performance assessments involve the comparison of a learner's behavior to an established guideline or rubric. The guidelines can be a single condition - or complicated multi-page rubrics with carefully described levels of performance for each action or behavior.

[Performance Assessment - NCREL](#)

[Creating Meaningful Performance Assessments. ERIC Digest E531.](#)

### **160. Phillips 66**

Divide students into groups of six and give them six minutes to perform some task. Tasks may range from simple discussion to the solving of complex problems.

### **161. Plays**

Planning and performing plays in the classroom can improve reading and performance skills and help to motivate learners who benefit from social interactions and the hands-on aspects of drama.

[Plays : The drama magazine for young people](#)

[All the Classroom's a Stage!](#)

[Reader's Theatre Scripts of the Month](#)

### **162. Plus, Minus, Interesting (PMI)**

A decision-making strategy devised by Edward de Bono. Students silently list positive, negative, and other aspects of a problem or solution. Aspects are shared as a group list. All alternatives are considered before decision is made.

[PMI: Plus-Minus-Interesting](#)

### **163. Poetry Writing**

Because poetry encourages students to express ideas in imaginative, highly connected ways, writing poetry can be used in many kinds of classrooms.

[April Is Poetry Month!](#)

[Online Poetry Classroom](#)

[Poetry for the Elementary Classroom](#)

[Ideas for Writing Poetry in the Classroom](#)

### **164. Portfolio**

Portfolios are carefully selected samples of student work accompanied by formal criteria to allow the reader to judge the materials in the portfolio.. Portfolios typically include work selected by the student to show their best work, some pieces to show progress, and other work that reflects on what was learned and what remains to be learned.

[Portfolios - NCREL](#)

[Guidelines for Portfolio Assessment](#)

### **165. Praise**

Verbal or written expressions of approval used by teachers to motivate students. While praise has historically been viewed as an effective means to reinforce learning, recent research indicates positive effects are seen only with certain types of praise and when used with certain types of students.

[The Power of Written Praise](#)

[Instructional Reinforcement](#)

### **166. Prediction Pairs**

Students are paired as they listen to the teacher read a passage aloud. At each pause in the reading, the teacher prompts students to discuss with their partner what they predict will happen next in the reading.

### **167. Pros and Cons**

Students generate lists of arguments for or against certain ideas. These can either be actions proposed by a class, or a listing of arguments for and against ideas of historical or scientific interest.

[Listing Pros and Cons](#)

### **168. Proverbs**

[Proverbs: Wisdom Tales Without the Plot](#)

### **169. Provocation**

Similar to the "Devil's Advocate" technique but in this approach the teacher makes statements that are obviously "stupid" in order to provoke students to generate statements or situations in which the statement makes sense. For example, "Food should be free." can lead students into a discussion of different economic and social structures.

[Provocation](#)

### **170. Questions**

Have students apply "who, what, when, where, why, how" to all problems. Or ask students to generate questions.

[Classroom Questioning](#)

[Teaching Thinking Through Effective Questioning \(PDF\)](#)

[questioning.org](#)

### **171. Randomized Questioning**

In situations where the teacher wants to ensure that all students have an opportunity to answer questions, the teacher creates note cards with the students' names on them, then shuffles the cards. AFTER asking each question, the teacher reveals the name of the student chosen at random to answer the question.

### **172. Reader's Theater**

Students adapt some of their reading to present to other students in the form of a play. These productions can be simple or elaborate and include posters, programs,

### **173. Reciprocal Teaching**

Students take turns being the teacher for a pair or small group. Teacher role may be to clarify, ask questions, ask for predictions, etc.

[Reciprocal Teaching - NCREL](#)

### **174. Reflection**

A metacognitive activity. Learner pauses to think about, and organize information gathered from reading, discussions, or other activities.

### **175. IRELATE Table**

A graphic organizer to help students connect what they learn in the classroom to real world events or issues.

[Making Real-World Connections When Teaching Major Concepts in Inclusive Classrooms](#)

### **176. Rewrite the Ending**

### **177. Rubrics**

[Storytelling Rubrics](#)

### **178. Rule-Making**

[Establishing Classroom Rules](#)

[Classroom Rules That Rock](#)

### **179. Scaffolding**

Providing temporary support until help is no longer needed. Can take many forms (examples, explanations, organizers, etc.) but needs to build on student's existing knowledge.

### **180. Sculptures**

A group problem-solving technique in which members add to three-dimensional models that depict either the problem itself or a potential solution to the problem. In the general sense, any three-dimensional figure or design.

[Sculptures](#)

### **181. Self-Assessments**

Students reflect on their performance and assess themselves.

[Self-Assessment In Portfolios - NCREL](#)

### **182. Signals**

Includes verbal and non-verbal communications between teachers and students.

### **183. Six Thinking Hats**

A metacognitive strategy that encourages people to look at concepts from different perspectives. Each hat represents a mode of thinking. The white hat = look at data, red = feelings, black = judgment, yellow = positive attitude, green = creativity, blue = overview.

[Six Hat Thinking](#)

[Six Thinking Hats](#)

### **184. Skill Inventory**

There are two basic formats for a skill inventory. Individuals may either generate their own list of skills, or individuals may "check off" skills they possess from a list of skills. Used as a self-assessment in many fields but most often used as part of career exploration or professional development.

### **185. Socratic Method**

Rather than "telling," teacher leads students to concept through a series of ordered questions.

[The Socratic Approach to Character Education - Elkind and Sweet](#)

[The Socratic Method: Teaching by Asking Instead of by Telling](#)

### **186. Songs**

[Using Songs in the Classroom](#)

[Songs for Teaching - Using Music to Promote Learning](#)

### **187. Spelling, Capitalization, Order of words, Punctuation, Express complete thoughts (SCOPE)**

A proofreading strategy.

### **188. Stance Questions**

Interacting with reading by taking different perspectives.

### **189. Stir the Teams**

Students are assigned to teams and each student in the team has a number (typically 1 through 4). Teams discuss their group answer to the teacher's question, then when the team is done they give a signal. When all teams are done, the teacher calls a number (from 1 to 4) and the students with that number rotate to the next group to share their team's answer with their new team. The procedure then repeats through the series of questions.

### **190. Story Impressions**

The teacher presents ten to fifteen terms to students prior to reading. These terms appear in the same order that they appear in the reading. Students write a passage using the terms that they think predicts what will happen in the reading. Students share their predictions with others. Finally, students read, comparing their predictions (story impressions) with the reading.

[Story Impressions](#)

### **191. Story Maps**

[Example Story Map](#)

### **192. Story Structure Review**

Students are asked to recall key features of a story using a blank story map.

### **193. Story Telling and Retelling (STaR)**

Teachers read stories to students then students retell the story by acting it out, answering questions, or writing about the story.

### **194. Student Response Groups**

Small groups of students who provide peer evaluation of the work of the other students in the group. Useful for writing or other creative projects because it gives the author an audience to experiment with before submitting work to a larger audience or for evaluation.

### **195. Study Aids**

The teacher provides students with carefully constructed tools to assist students in learning for specific structures or environments. For example, the teacher may distribute a "Guide to Using the Library" before taking students to the library to do research. Before a multiple choice test, the teacher may provide test-taking tips or tips on how to study for the upcoming test.

### **196. Stump the Teacher**

Game where students make up questions based on a reading assignment. The teacher gets a point if he or she can answer the question, and the students get a point if the teacher fails to answer the question.

[Stump the Teacher](#)

### **197. Suggestion Box**

Useful form of anonymous feedback. Student opinions can be regularly collected as part of class activities as a method for students to comment about classroom activities. Effective when paired with the Admit Slip/Exit Slip approach.

### **198. Summative Assessment**

[Formative and Summative Assessments in the Classroom](#)

### **199. Super Heroes**

Problem-solving technique in which students take on the roles of their favorite super heroes, then answer questions from the point of view of that character. For instance, if the class was discussing the problem of how to deal with water pollution from pesticide run-off, a student from the "Spiderman" perspective might propose that she could use her webs to capture insect pests on farms so farmers would not need to spray pesticides. In the same discussion, a student from the perspective of "The Flash" might propose that he could run through the fields at super speed, pick off all the insects, and take them to a place where they would not bother farmers.

## Super heroes

### **200. Syllabus**

Create and distribute a syllabus (overview of the course) to students and parents at the beginning of the course. Provides students with valuable information about the upcoming concepts they will be learning along with behaviors and routines to expect.

### **201. Teacher Expectations**

A clear, written explanation of the teacher's expectations. This should describe desirable behavior, rules, and the steps needed to get a good grade in a course. For older students, this is often included in a syllabus handed out the first day. For younger students, this is part of the packet of information sent home to be read by the parents. As the course progresses, more detailed expectations can be revealed to the students to describe what is necessary to be successful on particular tasks.

### **202. Team Consensus**

When a group response is desired, present methods to assist groups in creating responses that are satisfactory to all members of the group.

### **203. The Last Word**

Summary technique. Each letter in topic name is used to remember key ideas in topic. (example: snow, Six-sided ice crystals. Near center is dust particle One snowflake is usually made of more than one crystal. Water vapor freezes to form.)

### **204. Thelen's Group Investigation**

Groups explore socially significant problems.

### **205. Thematic Units**

#### Thematic Instruction

### **206. Think-Aloud**

Teacher describes own thoughts while reading aloud to class.

#### Using a Think Aloud in the Classroom

### **207. Think-Pair-Share**

Students think individually, then pair (discuss with partner), then share ideas with class.

#### Think/Pair/Share

### **208. Three Minute Pause**

After or during instruction, ask students to pause and reflect on what was learned for three minutes. Students might work individually, in pairs, or in small groups to build summary.

### **209. Three Step Interview**

Groups of four (a, b, c, d). Teacher assigns question. Step 1: a interviews b, c interviews d. Step 2: b interviews a, d interviews c. Step 3: All in group share what they've learned in their interviews.

#### Three Step Interview (PDF)

#### Three-step Interview

### **210. Timelines**

### **211. Topical Sequencing**

An instructional approach in which objectives are presented to learners beginning with issues currently of interest, then tracing back the history of the development of that issue. Compare to: Chronological, General-to-Specific, Known-to-Unknown, Part-to-Part-to-Part, Part-to-Whole, Part-to-Whole-to Part, Spiral, Step-by-Step, Unknown-to-Known, Whole-to-Part

### **212. Traditions**

Sharing or explaining family traditions.

## Collecting Family Stories

### **213. Transformation of Text**

Supply students with a text and ask them to transform it from its original genre to a different genre. For example, supply prose and ask students to create a poem with the same essential ideas.

### **214. Turn to Your Partner**

Teacher gives directions to students. Students formulate individual response, then turn to a partner to share their answers. Teacher calls on several random pairs to share their answers with the class.

### **215. Unknown-to-Known**

An instructional approach in which objectives are presented to learners beginning with unknown concepts and proceeding to known concepts. Used as a motivational technique to induce students to want to know more. Compare to: Chronological, General-to-Specific, Known-to-Unknown, Part-to-Part-to-Part, Part-to-Whole, Part-to-Whole-to Part, Spiral, Step-by-Step, Topical, Whole-to-Part

### **216. Voting Cards**

Students can be given laminated cards at the beginning of the year to be used to express their opinions in class. When they agree with a statement, they might hold up a green card, disagreement could be signified with a red card, and yellow could be used to show indecision or uncertainty.

### **217. Wait Time**

How long a teacher waits after asking a question can influence the quality of responses provided by students. Increased "wait time" also leads to increased confidence in students and improvements in classroom discipline.

### **218. Walking Tour**

Passages from reading are posted on individual pages around the room. Groups tour the room and discuss each passage, then summarize.

### **219. Want Ads**

Students write want ads. Varieties include "historical," "humorous," and as a famous character.

### **220. Weblogs**

Blogs, also known as weblogs, are online journals that can be used by the teacher as a means of sharing thoughts, assignments, or resources; or blogs can be created by students for the purpose of reflection, intergroup communication, or to fulfill particular assignments.

## Using Blogs to Integrate Technology in the Classroom

### Blogging Basics: Creating Student Journals on the Web

#### **221. What Is It?**

The teacher brings an object to class that is unfamiliar or has some historical significance. Ask students to identify the object or describe how it might have been used.

#### **222. Where Am I?**

Pair activity where partner1 points to a place on a blank map and partner2 selects the location from a list or names the location. Partner1 checks the response with a key. Partners switch roles halfway through the list. Alternative approach: partner1 describes location (no maps) and partner2 guesses where it is.

#### **223. Whole-to-Part**

An instructional approach in which objectives are presented to learners beginning with an overview of the whole model or idea, then proceeding to an analysis of the component parts.

Compare to: Chronological, General-to-Specific, Known-to-Unknown, Part-to-Part-to-Part, Part-to-Whole, Part-to-Whole-to Part, Spiral, Step-by-Step, Topical, Unknown-to-Known

**224. Word Associates**

Similar to the Concept Attainment strategy, where students are shown a series of examples and non-examples. Students are shown a series of cards in which one of the cards does not "fit." Once the students identify the card that does not fit, they attempt to discover the word or phrase associated with the objects or ideas that do belong together.

**225. Word Chain**

Game that helps students categorize. Teacher supplies category and a first word, then students supply the next word "in the chain." The chain is formed having the next word start with the ending letter of the previous word. For example: Category = Things found in the kitchen. Words: SinK - KnifE - EggbeateR - RefrigeratoR - and so on.

**226. Word Sort**

Students sort the lists of keywords they are given into logical groups.

**227. Word Wall**

**228. Working Backwards .**

**229. X marks the spot**

Reading strategy in which students flag passages as important (mark with an "X"), interesting (mark with a "!"), or something about which they have a question (mark with a "?").