Problem Solving
**Problem-Solving Essay Defined**

This type of essay uses the problem-solving process to show the author's interpretation of a problem, possible solutions to this problem, and an evaluation of various solutions.

Students will focus on a question, such as: "Are long lunch lines a problem at our school, and, if so, how could the problem be solved?" Then students restate the question into a thesis statement or reduce the essay's basic idea to a one-topic statement. Next, students develop the five-paragraph essay; it includes an introductory paragraph, a definition of the problem, solutions to the problem, an evaluation of the solutions to pick the best one, and one summary paragraph.

The introductory paragraph is represented by the "Bunch of Bananas." The first body paragraph (Bing) focuses on the definition of the problem. The second body paragraph (Bang) lists possible solutions to the problem. (You may wish young or less skilled students to write about only one solution.) Finally, the third body paragraph (Bongo) evaluates the proposed solution or solutions to the problem stated in the first body paragraph (Bing).

The fifth paragraph in the problem-solving essay is the summary paragraph in which the three main concepts are restated: definition of the problem, listing of solutions to the problem, and evaluation of those solutions.

On Level 2, the problem-solving essay differs in three ways from Level 1. First, the introduction begins with a statement or question designed to quickly get the reader's attention before stating the topic and the main ideas. Second, the Bing, Bang, and Bongo paragraphs are expanded with more specific detail. Finally, the summary is expanded to include two things besides a restating the main ideas: relating the essay's conclusions to today or the future plus issuing a challenge to the reader.
Lesson 1

Materials:
- Master 2:1, Level 1 CUTOUTS, one for each student
- Scissors
- Glue
- Crayons or colored pencils, five different colors for each student
- 12"x18" colored construction paper, one for each student

Procedure:
1. Explain that today students will learn about planning and writing a problem-solving essay. In this type of essay they will identify a problem, define the problem, list a solution, and evaluate the solution, telling why this solution will work. To help them understand the format for writing a problem-solution essay, tell students they will make a cutout picture of the five parts.

2. Using the cutouts, demonstrate step by step for your students the cutting and pasting of the 11 pieces (which represent the five parts) of the essay.
   a. Cut the bunch of bananas and glue at the top of the 12"x18" construction paper. Place the construction paper so that the greatest length runs from top to bottom. Write the words “Introduction” and “Bunch of Bananas.”
   b. Next cut and paste the three monkeys, which represent Bing, Bang, and Bongo, running down the left side below the introduction. Write the names of the monkeys (Bing, Bang, Bongo) below each of their pictures. Next to each monkey’s face write the words that represent what that paragraph will be about:
      - Bing: Write the phrase Define or tell what the problem is.
      - Bang: Write the phrase Solution or tell how to solve the problem.
      - Bongo: Write the words Evaluate or tell what I think about the solution. Also, you will want to write the word “Body” in the middle of the right side of the construction paper.
   c. Finally, write the barrel of monkeys at the bottom of the paper. Write the words “Summary” and “Barrel of Monkeys.”
"Long lunch lines can cause student problems. I will tell you about the problem, a solution to the problem, and why I think this solution will solve the problem."

5. Explain how each part of the body outline is filled out by listing specific details under Bing, Bang, and Bongo that support each general idea: definition, solution, and evaluation of the solution.
   I. Bing: define the problem.
      A. Lines are too long—it's boring
      B. Kids get bored
   II. Bang: suggest a solution
      A. More cashiers to take money
      B. Kids move fast
   III. Bongo: evaluate the solution
      A. More cashiers would cost money
      B. Bored kids cause trouble

6. Have the students complete the outline by copying this summary:

   "In conclusion, I have defined the problem of long lunch lines, I have offered a solution, and I have evaluated this solution."

Lesson 3—Level 1

Materials:
- Master 7:2, Level 1 WRITING FRAME 1, one per student plus overlay
- Outlines from previous lesson

Procedure:
1. Pass out copies of Level 1 WRITING FRAME 1. Displaying the overlay, tell the students to look at the outline they made in the previous lesson. Have them suggest words to use in filling out the blanks on the overlay.

2. Have the students complete their copy of the frame as you go down the essay’s parts on the overhead.

3. When they have completed the frame, have them color each part on their handouts with a different color.
“Long lunch lines can cause school problems such as this one. I will tell you about the problem with these lines, explain some solutions to the problems, and discuss why these solutions will solve the lunch line problem.”

4. Explain how each part of the body outline is expanded to include more details in the Bing-Bang-Bongo paragraphs as seen in the following outline:
   I. Bing—define the problem with long lunch lines.
      A. Kids get bored
      B. Kids find ways to entertain themselves
   II. Bang—suggest a solution or solutions to help with the long lunch lines.
      A. More cashiers to take money
      B. Two lunch serving lines, instead of one
      C. Stagger eating times for classes
   III. Bongo—evaluate solution or solutions
      A. More cashiers may cost the school more money and raise cost of lunch; but maybe parent volunteers?
      B. Two lunch lines would need twice as many serving utensils and student volunteers to serve food
      C. Staggering lunch periods for classes is the best solution because it wouldn’t cost anything.

5. Have the students complete the summary, noting how it has been expanded to include a challenge to the reader as well as a restatement of the main ideas:

   “In conclusion, I have defined the problem of long lunch lines, offered several solutions, and suggested the best one to be staggered lunch times. Don’t you agree that it would be worth trying to eliminate the long wait?”
2. Begin by reading the first sentence of the introduction. Indicate this sentence is designed to capture the reader’s attention; hence, it is called an “interest catcher.”

“Give me that. It’s mine!”

3. Note the next sentence states the topic. The final sentence of the introduction lists the main ideas to come in the essay.

“Children and a family shout at one another because they do not like to share their things. I will explain this children-sharing problem, give some solutions for the problem, and then tell why I feel my solutions will help children share.”

4. Explain how each part of the body outline is expanded to include more details in the Bing-Bang-Bongo paragraphs as seen in the following outline:

I. Bing: define the problem with brothers and sisters sharing.
   A. They are selfish
   B. If the thing is given to you it belongs to you
   C. Control issue

II. Bang: suggest a solution or solutions
   A. Parents punish kids for not sharing
   B. Buy all the brothers and sisters the same things
   C. Parents reward children when they share

III. Bongo: evaluate solution or solutions
   A. Punish kids
      1. Won’t like it
      2. It may make them mad
   B. Buy all the same things for every kid
      1. Not all kids want the same things, waste of money
      2. Need lots of storage space for all the stuff
   C. Parents reward children when they share
      1. Best solution because it will be a positive action for doing something nice
      2. Later kids will share without a reward

5. Have the students complete the summary, noting how it has been expanded to include a challenge to the reader as well as a restatement of the main ideas:
Lesson 6 (final drafts completed)

Materials:
- Rough Drafts from previous lesson with comment sheets
- Master 2:11, WRITING RUBRIC overlay

Procedure:
1. Before having students write their final copies, place an overhead transparency of the WRITING RUBRIC on the overhead and go over with the students. Discuss how each score is determined. Tell the students to read carefully the 3, 4, and 5 rubric score descriptions. Tell them then to read the Problem-Solving Anchor Essays in their Student Guides. Have each pair discuss the differences among the 3, 4, and 5 papers. (The 3 is quite evident, but the differences between the 4 and the 5 are more subtle.) Then have them compare their rough drafts with these anchor essays.

2. Allow time for students to make corrections in their rough drafts and to polish them, using the comment sheets for form and the anchor essays for style and content.

3. Have the students write their final copies which will be due for collection in a day or two.

Lesson 7

Evaluation Lesson on the Use of the Writing Rubric

Materials:
- Essays from a previous lesson
- Student Guides
- Master 2:11, WRITING RUBRIC

Introduction After telling students to look at the WRITING RUBRIC CHART on page 4 in their Student Guides, we briefly go over the major points on it. We discuss the RUBRIC POINTERS on page 5 for the literal, thoughtful and discerning writers. Then, we have students look at the Anchor 3, Anchor 4, and Anchor 5 Narrative Essays. We explain that we are going to use these essays and rubric pointers as models for evaluating our own work. We hasten to tell our students that all of us can work and train to be better swimmers, but not many of us will compete in the Olympics and that students need not be discouraged because few will ever reach the 6 on the rubric, and that
Masters

Ch. 7
I. Introduction:
   A. Interest catcher (if using Level 2):

   B. Topic sentence plus a listing of main ideas: definition, solution, evaluation of solution:

II. Bing (definition):
   A. (specific detail):

   B. (specific detail):

III. Bang (solutions):
   A. (specific detail):

   B. (specific detail):

IV. Bongo (evaluation):
   A. (specific detail):

   B. (specific detail):

V. Summary:
   A. Restatement of Bing-Bang-Bongo:

   B. Challenge to the reader if using Level 2:
Title: The Problem of Long Lunch Lines

"Ouch! You quit pulling my hair," the girl screamed. Long lunch lines can cause school problems such as this one. I will tell you about the problem with these lines, explain some solutions to the problems, and discuss why these solutions will solve the lunch line problem.

The problem with long lunch lines is _________.

___________.

___________.

Here are two ways to solve this lunch line problem. First, _________.

___________. Another solution would be _________.

Each of my solutions will work. My first idea _________.

___________. My next solution would also _________.

I have explained the school's long lunch line problem and written two solutions. Of these two the _________. would be better than the other. It would work better because _________.

Master 7:3
Title: Children Sharing in Families

"Give me that. It's mine!" Children and a family shout at one another because they do not like to share their things. I will explain this children-sharing problem, give some solutions for the problem, and then tell why I feel my solutions will help children share.

Sisters and brothers have a real problem sharing all their stuff for several reasons. They__________________________. Then they also_________________________. Even more of a problem is that_________________________.

I have some suggestions that would help children share with one another what they own.
First,__________________________. Another__________________________. Even__________________________. might work.

My solutions would work. I'm sure they will. To begin with,__________________________. Then, too,__________________________. A final reason is that___________________________.

I have written about the family problem of children not sharing their belongings. Of all the solutions I gave, the best one is__________________________. I believe it would work best because___________________________. Can you think of other good solutions?