**PART III** 

# DEVELOPING RELATED SKILLS

**PROBLEM SOLVING** 



# **TABLE OF CONTENTS**

# PART III: DEVELOPING RELATED SKILLS

# **Problem Solving**

- 1. Problem Solving Techniques 3
- 2. Problem Solving in School 11
- 3. Problem Solving on the Job 18
- 4. Problem Solving at Home 25

# PROBLEM SOLVING TECHNIQUES



# **AGENDA**

- Starter
- Problems, Problems; Solutions, Solutions
- What We Know
- Do It Again, Sam
- Conclusion
- Student Assessment

# - Objectives -

Students will identify problems that they face.

Students will identify strategies that can be used for problem solving.

Students will apply the steps of the decision making process to problem solving.

#### **Materials Needed**

• One copy of the "Problem Solving By" activity sheet for each group (Part III)

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Tell students the following story:

Marta comes into school one morning and sees her best friend, Ali, talking with Marta's boyfriend, Rodrigo. Neither Rodrigo nor Ali sees Marta as she gets closer. They are smiling and whispering to each other. When they see Marta, they stop talking, move away from each other, and look embarrassed. They all say hello to each other, and Ali and Marta go to class together. Rodrigo heads for his class in another room. Marta asks Ali what they were talking about. Ali says, "Oh...nothing much. Just homework." Marta feels uncomfortable about the scene she just saw but doesn't know what to do.

Ask students to describe Marta's problem. Ask if Ali and Rodrigo also have a problem.

After students have had a chance to express their ideas, explain that they will develop problem solving skills in this module.

Part I Problems, Problems; Solutions, Solutions (10 minutes)

Purpose: Students identify problems that they face.

# 1. Students define "problem."

Ask students what it means to have a problem. Have students discuss their definition of "problem." Ensure that they focus on defining "problem" instead of offering examples.

Elicit comments such as the following from students:

- A problem is a question that needs to be answered.
- A problem is a situation that is puzzling or creates difficulty.

#### 2. Students identify problems that they experience in their lives.

Point out to students that everyone experiences problems. Elicit from students examples of problems that they have had. Encourage them to think of examples from all areas of their lives. In order to prompt discussion, suggest the following examples:

- Problems with their bosses
- Problems with co-workers
- Problems in their family
- Problems with school assignments or teachers
- Problems with classmates or friends

Have a volunteer write students' answers in a place where everyone can see.

## 3. Students classify problems.

Explain to students that in this module they are going to be addressing problem solving at school, at work, and at home. Ask them to classify each of the problems listed into one of those categories. Have a category of "other" for problems that do not fit within the school, home, or work classifications.

Write the categories for each of the problems listed.



Purpose: Students identify techniques they have learned that can be used for problem solving.

## 1. Students understand what it means to solve a problem.

Ask students what it means to solve a problem. Lead students to understand that solving a problem means resolving some kind of confusion or difficulty and having a clear course of action. Point out to students that sometimes the solution will be the "lesser of two evils."

#### 2. Students recognize the strategies they have used to solve problems.

Ask several students to identify problems from the list on the board that they have solved. Guide students to verbally outline the process they used to solve the problem. Write key words or phrases from their explanations where everyone can see. Have students compare the processes that they used to solve their problems. Make a list of the words and phrases that suggest there is a process for problem solving. Additionally, mention skills that students have developed that will help them to solve problems well, including communication skills, decision making skills, goal setting skills, and so on.

Explain that students will be using and combining some of these skills to refine their problem solving skills.

#### 3. Students recognize that they have the ability to solve problems.

Refer students to the list of problems that they have brainstormed and ask if any of these problems cannot be solved. Lead students to recognize that they have the ability to solve or alleviate theimpact of their problems.

Tell students that problem solving is similar to decision making. When they are problem solving, they are searching for the best option, or solution, to their problem (as in decision making).

Part III Do It Again, Sam (20 minutes)

Purpose: Students apply the decision making process to problem solving.

## 1. Students review the steps of the decision making process.

Ask students to recall the steps of the decision making process that they learned in *Module Two:* Decision Making Skills. They are:

- 1. Define the issue.
- 2. Gather information.
- 3. Develop alternatives.
- 4. Analyze consequences.
- 5. Make the decision.
- 6. Consider feedback and evaluation.

# 2. Students apply the steps of the decision making process to problem solving.

Divide the class into groups of four or five students. Assign each group one character from the starter (Marta, Ali, or Rodrigo). Give each group one copy of the "Problem Solving By" activity sheet and a character to focus on. Reread the starter to the class.

Give students the following instructions:

- Your task is to solve your character's problem.
- Put your character's name on the activity line.
- Use the six-step decision making process to find a solution.

If necessary, prompt students by saying, for example, "Does Ali have a problem? If so, what is it? The first step is to define the issue or problem that Ali has."

Move around the classroom and whisper to the groups assigned Ali and Rodrigo that their characters are planning a surprise party for Marta. As you circulate, remind the groups to follow the steps of the decision making process.

# 3. Groups present their results to the class.

After students have completed their activity sheets, have each group present its results to the class.

Ask the groups assigned Marta if knowing about the surprise party would have made a difference in how they chose to solve the problem. Ask them how they could have discovered that information.

Have the groups explain the steps they took and the reasons for each. Point out to students that each group chose a slightly different solution. Remind students that there are usually several different solutions to a problem and that one of the steps of the problem solving process is to consider as many options as possible.

Conclusion	(2	minutes)
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Conclude by asking students to review the steps of the problem solving process. Elicit from students the following **key points** that were taught in this lesson:

- A problem is a question that needs answering or a situation that creates difficulty.
- Everyone has problems and the ability to solve them.
- Problem solving utilizes the techniques and steps of the decision making process.

#### Student Assessment .

- 1. List the steps to effective problem solving.
- 2. Create a scenario or short story in which someone demonstrates the steps of the problem solving process.

# **LESSON EXTENSIONS**

Using Quotations
"Problems are not stop signs, they are guidelines."
Have students create signs that represent a problem as a guideline. Ask students to share their signs with the class and explain why they represent guides to problem solving.
Addressing Multiple Learning Styles
Present students with a problem. Ask them to create a KWS chart of what they <i>know</i> about the problem (K), what they <i>want</i> to know about it (W), and possible <i>solutions</i> to it (S).
Have students discuss their KWS charts.
Writing in Your Journal
Have students write about whom they turn to for advice when they have a problem. Have them write a letter to that person asking for advice about a problem they have.
Have students share their letter with a partner and discuss possible solutions to their problem.
Using Technology
Have students create road or concept maps showing the path to solving problems. The maps should show a path from a problem to its solution and give directions that will help others solve problems. Ask students to draw and color the maps.

Have students present their maps on a smartboard.

Homework \_\_\_\_\_

Have students read "Dear Abby" or another advice column and bring in the piece they read.
Discuss a few of the questions and the advice that was given. Do students agree with the advice given? How would they advise the person in each situation?
Additional Resources
Have students read A Whack on the Side of the Head: How You Can Be More Creative by Dr. Roger von Oech.
Have students summarize what they have read.

# PROBLEM SOLVING BY

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	SION MAKING STEPS	COMMENTS
1.	Define the issue.	
2.	Gather information.	
3.	Develop alternatives.	
	·	
4	Analyze the consequences.	
4.	Analyze the consequences.	
5.	Make the decision.	
5.	Make the decision.	

6. Consider feedback and evaluation.

# PROBLEM SOLVING IN SCHOOL



# **AGENDA**

- Starter
- What's the Problem?
- Define and Gather
- Act It Out
- Conclusion
- Student Assessment

# - Objectives -

Students will apply the steps of the problem solving process to solving problems at school.

Students will identify resources available in school that can help them solve common problems.

## **Materials Needed**

• A list of resources available in the school that can help students solve problems (Part I)

	Starter	(3	minutes
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Write the following quote where everyone can see: "If you are not part of the solution, you are part of the problem." Elicit from students their thoughts about the meaning of this saying.

Ask the class to suggest one problem their school faces and who should solve this problem. Point out to students how easy it can be to wait for other people to solve problems that affect us. Explain that the quote means that if we are not taking responsibility for solving problems that affect us, we are helping to prolong them.

Explain to students that this lesson will help them develop new skills for solving problems that they encounter in school.

Part I What's the Problem? (10 minutes)

Purpose: Students will develop new problem solving strategies to apply to problems at school.

## 1. Students identify problems at school.

Ask the class to list some problems students typically have in school. Have a volunteer write student responses where everyone can see. (Students might respond: problems with other students, problems with teachers, problems with cliques, dating and social pressures, drug and alcohol pressures, disciplinary problems.)

Save this list for use in Part II.

#### 2. Students identify problem indicators.

Select one of the problems identified by students and ask them to list indicators that would help them identify it as a problem. Write the indicators in a place where everyone can see.

Look for a response that can be built upon to make the point that problems cannot be ignored; they must be dealt with or they will often become worse. Remind students that when they are problem solving, their goal is to clearly identify what the problem is so that they can take appropriate steps to address it.

Tell students that it may sometimes be helpful to talk to friends when they believe they have a problem. Ask students what characteristics they should look for in a friend when considering confiding in them. Write student responses in a place where everyone can see. (Students might respond: the person should be someone whose judgment and insight you respect, the person should be someone who will keep the discussion confidential.)

# 3. Students identify resources available in their school that can help them solve problems.

Referring to the list of problems that students brainstormed, elicit suggestions regarding places to go for help with solving problems in school. Guide students to identify school personnel whom they respect and who might help them. (Students might respond: teachers, principals, school counselors, social workers, librarians, school nurses, police, coaches, etc.) Also point out that community organizations or outside programs are available to students.

Part II Define and Gather (20 minutes)

Purpose: Students practice defining and gathering information to solve problems.

# 1. Students develop scenarios that call for problem solving.

Explain to students that they are going to brainstorm a list of situations in school that require problem solving. The class will then be divided into small groups to apply the first two steps of the problem solving process: define the problem and gather information.

Refer to the list of general situations that students brainstormed in Part I, and then ask them to suggest specific problem situations at school. Suggest situations such as the following to facilitate discussion:

- A friend is lying about you behind your back.
- You have missed five English classes in the past three weeks; there is a test tomorrow.
- You know that a friend has brought a weapon to school.
- Someone has taken your homework. You think that you know who it is, but you aren't sure.
- A close friend is having difficulty with his parents, and he has started drinking at school.
- Your teacher has accused you of copying someone else's answers on a test.
- Your PE teacher yells at you because she doesn't think you are trying hard enough. It has
  made you so upset that you don't even want to go to gym class.

#### 2. Students define the problems.

Divide the class into small groups of five or six students. Assign one scenario from the class list to each group. Make sure that there are enough scenarios to give one to each group.

Explain to students that they are going to focus on the first two steps of the problem solving process: define the problem and gather information. Point out to students that in order to solve the problem that they have been assigned, they need to identify the causes of the problem, who is involved, the motives of the individuals involved, and so on.

Write the following questions where everyone can see them: Who? What? When? Where? Why? How? Suggest to the groups that the first step of defining the problem is to answer as many of those questions as possible.

Allow students about five minutes to develop answers that more specifically define their problems.

# 3. Students define strategies for gathering information.

After about five minutes, stop the groups and ask how many of them still have unanswered questions. Explain to students that when you have defined the problem as clearly as possible and still have questions, it is time to gather additional information.

Ask students how they can find answers to the questions that remain. Write student responses on the board. (*Students may respond: talk directly to the people involved, consult a counselor or other expert, talk to other friends or witnesses.*) Explain to them that these are strategies for the second step of the problem solving process: gather information.

Tell students that they are now going to prepare role plays. Tell them that their role plays should demonstrate clearly defined problems and include characters who are gathering information in order to develop solutions to the problems.

Allow students about 10 minutes to prepare their role plays.

Part III Act It Out (15 minutes)

Purpose: Students present and evaluate their problem-scenario role plays.

#### 1. Students present and evaluate their role plays.

Ask for a group to present its role play first. Direct the rest of the class to write down the six questions (i.e., Who? What? When? Why? How?) on a piece of paper and to define the problem by answering the questions as the group role-plays.

Have the first group present its role play.

# 2. Students gather information by asking effective questions.

When the role play is complete, ask the students in the group to remain in character. Direct the rest of the class to look at their lists and determine which elements of the problem are still unclear. Encourage them to ask specific questions of the role-playing group in order to determine the remaining details.

Students should ask questions similar to the following:

- Why did you feel that you had to spread gossip?
- How did you find out that your friend is having problems with her parents?
- When did you first notice that your friend was drinking in school?
- What does your teacher think about the absences?
- 3. Students suggest other resources for gathering information.

After the class has had a chance to question the characters, ask the students observing the role plays to suggest other resources that the characters might use to solve their problems. To guide their thinking, refer students to the list of resources that they created in Part I.

Repeat this process and discussion for each group.

Conclusion (2 minutes)

Ask students to think about a problem they currently have or anticipate having in school. Ask them to consider how well-defined the problem is: How much information do they have? What other pieces of information are missing? Elicit from students the following **key points** that were taught in this lesson:

- Once you determine that you have a problem, the first step is to clearly define it.
- Answering the six questions (i.e., Who? What? When? Where? Why? How?) can help us define a problem and determine what other information we need.
- There are many resources available to help us gather information and solve problems at school.

#### Student Assessment .

- 1. List three possible problems that someone might face in school. For each problem, discuss who can help answer questions about it.
- 2. What questions do you need to answer in order to gather information about a problem?

# **LESSON EXTENSIONS**

Using Quotations
"In creative problem solving, it is frequently more important to look at the problem from different vantage points rather than run with the first solution that pops into your head."
Have students think of a problem they had recently and their reaction to it. Have them write a new solution to the problem. Ask, "How could you have looked at the problem differently?"
Addressing Multiple Learning Styles
Present students with a problem. Ask students to create a time line for solving the problem.
Have groups of students brainstorm alternative time lines.
Writing in Your Journal
Have students write about how they deal with problems at school. Have each student create a plan of action to use the next time they face a problem at school.
Have students share their plans with partners and discuss alternative solutions and possible resources within the school.
Using Technology
Have students research current education issues online. Offer various websites that discuss such issues.
Ask students to write two or three paragraphs about one of the issues.
Homework
Ask students to bring in or draw an object that represents a problem (such as a knot).
Have students describe how the object is a representation of a problem in school.

Additional Resources	
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Have students review *The Thinker's Toolkit: 14 Techniques for Problem Solving* by Morgan D. Jones.

Have students debate the ideas in the book or add some of their own.

# PROBLEM SOLVING ON THE JOB



# **AGENDA**

- Starter
- Outside the Box
- Consequences, Consequences
- On the Job
- Conclusion
- Student Assessment

# Objectives \_

Students will practice developing alternatives and analyzing consequences in order to solve problems at work.

Students will apply problem solving strategies to specific workplace problems.

# **Materials Needed**

- White paper, markers, colored pencils, rulers, magazines, glue, scissors, etc. (Part I)
- Copies of a news or magazine article for each student about an allegation of workplace discrimination (Part III)

Starter	(3	minutes	;)
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Ask students if they have ever used a correction fluid like Wite-Out or Liquid Paper to fix a mistake they made while writing. If they haven't, explain that correction fluid is a white, paint-like liquid used to hide errors on paper.

Tell students that correction fluid was invented in 1951 by Bette Nesmith Graham, a secretary. Before the advent of word processors and home computers, all typing had to be performed on typewriters. Work done on a typewriter, unlike work done in a word processor, could not be edited before appearing on paper. Therefore, a single mistake—no matter how minor—meant that the whole page had to be retyped from the beginning. Graham, who was proud of being an efficient employee, wanted to find a better way to fix typing errors. One night, she mixed paint and created what she called "Mistake Out"; she soon began using it at work. Her correction fluid quickly became popular, eventually leading her to establish a company that she later sold for \$47.5 million.

Explain to students that, in business, people look for inventive and creative solutions to problems. In this situation, correction fluid solved the problem. Tell students that in this lesson they will be focusing on steps three and four of the problem solving process: develop alternatives and analyze consequences.

Part I	<b>Outside the Box</b>	(20 minutes	;)
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Purpose: Students develop possible alternatives to solve workplace problems.

# 1. Students identify the kinds of problems that occur in the workplace.

Ask students to list problems that they have experienced at their jobs, including self-employed positions such as babysitting or dog walking. Suggest that students also list job problems that they have heard about from friends or family members. Write student responses where everyone can see. (Students might respond: not knowing how to do a task, scheduling conflicts, a supervisor who doesn't seem to like them, uncooperative or unfriendly co-workers, gender or racial discrimination, sexual harassment, etc.)

# 2. Students develop a workplace scenario that calls for creative problem solving.

Tell students that they are now going to use one of the problems they just listed in order to practice developing alternatives and analyzing consequences.

From the list students developed, choose a problem for them to work on in which inventing a system, process, or object might produce a solution. Ask the class to further develop the situation, providing who, what, when, where, why, and how details. Write student responses where everyone can see as a reference for the next activity.

#### 3. Students invent possible solutions to the problem that they have developed.

Ask students if they have ever heard the expression, "Think outside of the box." Elicit students' thoughts as to what the saying might mean. Lead them to understand that the saying means considering all possibilities, even those that might seem unusual or strange at first. Point out to students that thinking "outside of the box" is a useful strategy in this step of problem solving, when it is important to consider as many solutions as possible.

Remind students of the story behind correction fluid. Tell students that this is an example of thinking "outside of the box." Explain that they are now going to create similar inventions to solve the problem that they just discussed.

Divide the class into groups of three or four students. Remind students that their inventions can be objects, systems, or processes. Tell students to try to "think outside of the box" when considering solutions. Tell them that each group will choose one possible invention to present to the class.

Give the groups about five minutes to come up with their ideas.

Provide groups with art materials and instruct them to create visual representations of the inventions that they have decided upon.

Part II Consequences, Consequences (10 minutes)

Purpose: Students analyze the consequences of the inventions they created.

# 1. Students present their inventions to the class.

When students have finished working, ask each group to share its invention with the class and explain why it chose the particular invention that it did.

## 2. Students analyze the consequences of their inventions.

After each group presents its project, ask the class, "What are some of the possible consequences of this invention?"

Remind students to consider all possible consequences, both positive and negative. If students need prompting, provide them with examples of the possible consequences of correction fluid (e.g., more work could be performed, as mistakes were easier to fix; less time was needed to prepare a typed document; work might have become sloppier as correcting mistakes became less time consuming).

Have a volunteer write students' suggestions on the board. When students have exhausted their ideas, review the list that they created. Ask them to determine whether or not the invention seems effective. Also encourage students to consider what other changes might have to take place in order for their inventions to work.

	<ul><li>Part III</li></ul>	On the Job	(15	minutes	;)
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Purpose: Students apply their problem solving skills to a real workplace issue.

## 1. Students learn about the Civil Rights Act.

Explain that one problem that may occur on the job is discrimination. Explain to students that federal law prohibits discrimination based on:

- Race, color, or national origin
- Age or gender
- Religion
- Pregnancy
- Disability

Many states also have laws prohibiting discrimination based on sexual orientation, parental status, marital status, and political affiliation.

# 2. Students identify possible solutions for problems involving discrimination in the workplace.

Ask students to suggest possible actions for situations in which they believe that they have been discriminated against on the job. Students may identify some of the following approaches:

- Document instances in which you believe you have been discriminated against by writing down what happened and who was present.
- Check your company's policy or talk to your supervisor to see if what you're experiencing is considered discrimination.
- If you can, use good communication skills to talk to the person and tell them that you believe they are discriminating against you and you want it to stop.
- If the behavior doesn't stop, follow the company policy and take the next step. If necessary, seek help from your supervisor or human resources manager.
- If the person practicing discrimination is your supervisor or the human resources manager, see their supervisor.
- If none of these steps takes care of the problem, file a complaint with the Equal Employment Opportunity Commission (EEOC). Go to www.eeoc.gov.
- If you file a complaint, understand that the charges you are bringing are very serious and that you must not take them lightly. The records you have kept will be very helpful in ensuring that the claim is responsibly processed.

## 3. Students apply their solutions to an example of workplace discrimination.

Distribute copies of a news or magazine article relating allegations of workplace discrimination or tell students about an incident with which you are familiar.

Divide students into groups of five or six. Have each group review the situation described in the article and apply steps three and four of the problem solving process by developing possible solutions to the problem and analyzing the consequences.

Ask each group to share its results with the class.

Conclusi	on <i>(</i> 2	2 m	ninute	s)
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Conclude by asking students to list the four steps of the problem solving process that they have practiced so far. Tell students that the next lesson will focus on the final two steps: make a decision and evaluate the results. Elicit from students the following **key points** that were taught in this lesson:

- Thinking "outside of the box" can help you develop many possible solutions to a problem.
- It is important to consider the consequences of potential solutions before making a final decision.
- The Civil Rights Act prohibits discrimination in the workplace.

#### Student Assessment .

- 1. What are the benefits of thinking "outside of the box"?
- 2. What can you do if you see discrimination in your workplace?

# **LESSON EXTENSIONS**

Using Quotations -

"Each problem has hidden in it an opportunity so powerful that it literally dwarfs the problem. The greatest success stories were created by people who recognized a problem and turned it into an opportunity."
Have students brainstorm problems on the job that might be seen as opportunities.
Addressing Multiple Learning Styles
Have students write "if, then" statements that might solve problems at work (e.g., "if someone is not willing to share equipment with you, then ask someone else").
Have students create a book of "if, then" at-work statements.
Writing in Your Journal
Have students write about why it is important to be able to solve problems on the job.
Have students discuss ways that being a good problem solver could benefit people in the workplace.
Using Technology
Have students create lists of questions for professionals in different fields about the various work problems they encounter. Ask your school's office manager and principal if your students could send
problems they encounter. Ask your schools office manager and principal if your students could send

overcomingobstacles.org

their questions to professionals who are willing to answer them.

Discuss with students the answers that are sent back to your class.

Homework
Ask students to interview someone about job-related problems. Ask them to discuss the course of
action that the person took in response to these problems. Discuss the results of the interviews. What
were the reactions to the problems encountered on the job and the courses of action taken to deal with

# Additional Resources \_\_\_\_\_

Have students read a story from Chicken Soup for the Soul at Work.

the problems?

Have students write letters to the author of the story that share their reactions to it.

# PROBLEM SOLVING AT HOME



# **AGENDA**

- Starter
- Scenes from Home
- Storyboard
- Gallery Walk
- Conclusion
- Student Assessment

# Objectives -

Students will analyze a video clip of a problem at home.

Students will practice techniques of evaluation and feedback.

Students will apply the six steps of the problem solving process to problems at home.

#### **Materials Needed**

- A balloon (not inflated) with the words "family relationships" written on it (Starter)
- A pin (Starter)
- A video clip from a popular movie or TV show showing teens grappling with a problem at home (Part I)
- Poster board in dark colors, one piece for each group of four or five students (Part II)
- Sheets of white drawing paper, approximately one per student (Part II)

- Glue and an assortment of colored markers, crayons, pencils, magazines, etc. (Part II)
- Several stacks of sticky notes, enough so that each student gets several notes (Part III)

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Starter	(3	IIIIIIIIIII	<i>;</i> 51
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Take the balloon with the words "family relationships" written on it and slowly blow it up for the class. When the balloon is almost at full capacity, stop inflating it for a moment and ask the class what would happen if you kept blowing air into it. (Student responses should indicate that the balloon would pop.)

Continue blowing up the balloon until it is at full capacity. Ask students how many of them feel tension or fear that the balloon will pop as the pressure on it increases. Pop the balloon suddenly with the pin. Tell students that this is how stress affects family relationships; as stress increases, the tension grows, problems become worse, and the situation may explode out of control.

Brainstorm with students some examples of common problems at home; write student responses where everyone can see. (Students might respond: feeling as though parents don't trust them, feeling as though parents are too strict or not strict enough, feeling as though they are treated differently than their siblings, not getting along with siblings, feeling as though they are given too much responsibility for younger brothers and sisters, wishing they had more privacy.) Save this list for use in Part II.

Tell students that they are going to practice applying the final two steps of the problem solving process to problems at home.

Part I Scenes from Home (15 minutes)

Purpose: Students analyze the problem solving strategies depicted in a video clip.

#### 1. Students define the final two steps of the problem solving process.

Tell students that the final steps of the problem solving process are making and evaluating a decision. Ask students what it means to evaluate a decision. (Student responses should indicate that this means seeing how the solution turns out and deciding whether the actual consequences are primarily good or bad.)

Point out to students that the final step is often overlooked—people may thoroughly work through a solution to a problem but may not revisit it to see if it was effective.

# 2. Students view a video clip depicting a problem at home.

Tell students that they are going to watch a clip of a common problem at home. Instruct students to take notes while they are watching in order to identify the steps of the problem solving process that are being followed. Tell students that they should also note indications that the steps are not being followed, such as someone who has not gathered enough information. Show the video clip to students.

# 3. Students identify the steps of the problem solving process that are evident in the clip.

When the video is finished, ask students to list the steps of the problem solving process that were apparent in the video and identify the specific scenes or dialogue that relate to each step. Discuss students' responses and lead students to draw inferences about the steps of the problem solving process that were not overtly addressed in the clip.

As students identify the steps in the video, create a rough storyboard on the board. (Draw a large, horizontal rectangle; then draw six boxes inside that rectangle. Each small box represents one step of the problem solving process.) Write in each box key words or dialogue from the scenes that relate to each problem solving step.

Part II Storyboard (20 minutes)

Purpose: Students develop storyboards to demonstrate problem solving techniques.

# 1. Students choose problem solving scenarios to illustrate.

Point out to students the sketch you have made on the board. Explain that this is an outline for a storyboard of the video clip they watched. Tell students that storyboards contain drawings or visual representations of each scene and are used by animators, artists, and filmmakers to create films and shows.

Tell students that they are now going to create storyboards that outline solutions for their problems at home. Divide the class into groups of four or five students. Referring them to the list of problems that they brainstormed in the starter, instruct the groups to each choose a problem that is important to them. Explain that each group will then create a storyboard to visually represent possible solutions to its problem.

# 2. Students create storyboards to demonstrate problem solving skills.

Display a completed storyboard for the class or label the sketch on the board to show students how to assemble their materials.

Distribute the poster board, white paper, markers, glue, and other art supplies to each group. Students should design their scenes on white paper and attach these, in order, to the dark poster board. Give students about 20 minutes to work on their storyboards. Ask each group to post its finished storyboard on one of the classroom's walls.

Part III Gallery Walk (10 minutes)

Purpose: Students practice evaluation and feedback techniques.

## 1. Students prepare for a gallery walk.

Explain that the class is going to do a gallery walk around the classroom to evaluate the storyboards. Ask students if they have ever been to a gallery or art museum. Explain that in a gallery, people browse among the works, pausing to look at and think about each piece of art.

#### 2. Students learn evaluation and feedback techniques.

Ask students what "evaluation" means. Direct them to define "evaluation" as determining the strengths and weaknesses of something through careful review. Explain that it is important to review all aspects of something in order to evaluate its overall impact. Tell students that they are going to practice evaluation by looking at and thinking about the storyboards.

Ask students what "feedback" means. Tell students that feedback consists of constructive comments that describe the impact of something. Explain that they are going to give feedback to each other by making notes about the storyboards.

Point out to students that effective feedback can be both negative ("I felt confused when I read this") and positive ("I was excited to see that you did it this way because..."), but that it should always be constructive and help the person improve the project. Remind students to practice responsible communication by using I-Messages.

Remind students that providing carefully worded feedback is an important tool to use when addressing problem situations, particularly situations involving our families and others with whom we tend to interact rather informally.

# 3. Students participate in a gallery walk to provide feedback on the storyboards.

Give each student a small stack of sticky notes and instruct them to use the notes to provide feedback on the storyboards by writing their comments and sticking the notes on the wall near each poster. Tell students to focus on the ways that the storyboards convey the six steps of the problem solving process and whether they think that the solution is effective.

Allow students several minutes to circulate the room to review the storyboards.

Conclusion (2 minutes)

Ask students to name the steps of the problem solving process. Encourage them to focus on specific situations in their own lives in which problem solving might be useful. Elicit from students the following **key points** that were taught in this lesson:

- Cooperation reduces problems in the family.
- Handling stress helps problems become more manageable.
- Problem solving techniques work in family situations.

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- 1. What can you do to help build cooperation in your family?
- 2. Describe a problem that you have had at home. How did you overcome this problem? How could the steps of the problem solving process have helped you?

# **LESSON EXTENSIONS**

Using Quotations
"There is little less trouble in governing a private family than a whole kingdom."
As a class, discuss the meaning of the quote. Have students write possible solutions for solving problems at home.
Addressing Multiple Learning Styles
Have students imagine their family as a sports team. Ask, "What sport would you play? What position would each family member play? What would your team name and colors be?"
Have students meet in groups based on the sport their families would play (e.g., all soccer teams together). Have each group present the members of their league to the class.
Muiting in Vous Journal
Writing in Your Journal
Have students describe a situation in which their family used cooperation to solve a problem.
Have students share their descriptions with a partner.
Using Technology
Have students research various services available to families.
Have students record PSAs for a service offered to help families solve problems.
Homework

Have students create a bar graph of their problems at home, at work, at school, and with friends. Have them keep the chart for one week and track how many times problems arise.

Have students present their bar graphs to the class and share their solutions or ask for advice.

Additional Resources
Have students research songs about families or family members.
Have students discuss the lyrics of these songs and the messages they send about families and problems
at home.