

Handouts

Teaching Expository and Persuasive Texts Gateway Resource TEPT0001

Incorporating Formal Writing in the Content Areas

Description

- Refers to longer written assignments used several times per grading period
- Involves teachers using a variety of mentor texts to explicitly model how to read and write different text types, genres, and text structures or patterns encountered and used in specific disciplines
- Generally includes prewriting, drafting, revising, editing, conferencing, and publishing
- Helps students learn how practitioners or professionals in a specific discipline communicate and articulate ideas
- Focuses on students learning to transfer different types of genres and text structures to their own writing
- Improves comprehension of content area textbooks and enhances learning of content
- Includes almost any writing genre across content areas, especially if the genre has been introduced and taught

Instructional Protocol

- Explicitly introduce and teach—by modeling and thinking aloud—a type of formal writing specific to your discipline.
- Read aloud an example of a mentor text. Notice the characteristics of the genre and common text structures: concept and definition, sequence, compare and contrast, cause and effect, and problem and solution. Remember, authors usually use more than one pattern in a piece of writing.
- Model that particular type of writing (or genre) in front of the class. Think aloud as you show students one stage of writing at a time: prewrite, draft, revise, edit, conference, and publish.
- Merge opportunities for students to practice and apply (read and write) what they have learned about a genre and appropriate text structures with content learning. Differentiate instruction to meet the needs of all students.
- Schedule time for students to prewrite, draft, revise, edit, and conference with you and/or their peers.
- Teach and reinforce a variety of genres throughout the year.

Examples of Formal Writing Activities

	English	Math	Science	Social Studies
Literary				
Biographies	X	X	X	X
Memoirs	X	X	X	X
Poems	X	X	X	X
Personal narratives	X			X
Autobiographies	X			
Short stories	X			
Informational (Expository, Procedural, Persuasive)				
Essays	X	X	X	X
Summaries	X	X	X	X
Analyses	X	X	X	X
Interviews	X	X	X	X
Newspaper or magazine articles	X	X	X	X
Reports	X	X	X	X
Editorials	X	X	X	X
Procedures (how-to)	X	X	X	
Directions		X	X	
Letters	X			X
Reviews	X			
Critiques	X			
Observational notes			X	
Campaign speeches				X

Source: Teach for America. (2011). *Secondary literacy*. Retrieved from http://teachingasleadership.org/sites/default/files/Related-Readings/SL_2011.pdf

Developing Clear and Meaningful Content Area Writing Tasks

Writing tasks should be specific, meaningful, and aligned with your curriculum. In the second edition of *Writing in the Content Areas* (2005), Amy Benjamin describes these types of writing assignments as “airtight.” These types of assignments elevate students’ thinking and writing above the traditional, literal responses that can be copied verbatim from textbooks or other resources.

Four Tips for Developing Airtight Writing Tasks

1. **Specify the length of the writing in terms of content, not volume.** Avoid assigning a specific number of words or pages. Instead, ask students to develop a specific number of ideas, reasons, examples, results, or types based on the topic and genre of writing.
Example: Give four examples of _____. Develop each one in a separate paragraph and use facts, figures, names, and places.
2. **Make sure the focus of the topic is narrow.** Rather than using a broad topic like “The reign of Ferdinand and Isabella,” narrow the topic to “What is the historical context in which Ferdinand and Isabella reigned?”
3. **Include key question words** that elevate your students’ thinking as they write. Formulate writing tasks at the Application and Analysis or the Synthesis and Evaluation levels of Bloom’s Taxonomy (see below).

Level From Bloom’s Taxonomy	Question Words	Sample Writing Tasks
Knowledge and Comprehension	<ul style="list-style-type: none">• Explain in your own words• Identify• List• Describe• Summarize• Retell• Trace	<ul style="list-style-type: none">• Explain in your own words how a jet engine works.• List the basic parts of a jet engine and tell what these parts do.
Application and Analysis	<ul style="list-style-type: none">• Explain how• Explain why• Discuss the details in relation to the whole• Solve a problem by applying knowledge• Explain a relationship• How?	<ul style="list-style-type: none">• Explain the function of the rotating and stationary blades in the compressors.• Explain the interaction between air movement and air temperature in a jet engine.

Level From Bloom's Taxonomy	Question Words	Sample Writing Tasks
Synthesis and Evaluation	<ul style="list-style-type: none"> • Create • Put together • Suggest • Judge • Agree/disagree • Defend/refute • Prioritize • Combine ideas • What if? Why? 	<ul style="list-style-type: none"> • What would happen if the bypass duct clogged? • Why is kerosene or paraffin the fuel of choice for jet engines?

Source: Benjamin, A. (2005). *Writing in the content areas* (2nd ed.). Larchmont, NY: Eye on Education.

4. **Provide a teacher-developed (or student-generated) word bank** of 6 to 10 content area terms related to the specific writing topic and task. Be sure to review word meanings and usage in context. Emphasize the importance of students incorporating and spelling the specialized language correctly in their own writing.

	Social Studies	Science	Math	English
Writing Topic	Impact of the ancient Egyptians' technological achievements	Effects of glaciers on Earth	Linear and nonlinear patterns of data on graphs	Symbolic effect of the pearl on characters' lives
Word Bank	<ul style="list-style-type: none"> • civilization • hieroglyphics • architecture/architectural • monuments • scribes • mathematics 	<ul style="list-style-type: none"> • glaciation • erode • bedrock • climactic • retreat • advance 	<ul style="list-style-type: none"> • slope • coordinates • equation • discrete function • ratio • representations 	<ul style="list-style-type: none"> • conflicts • dynamic characters • imagery • irony • corruption • harmony • tragedy

Examples of Leaky vs. Airtight Writing Tasks

Below are some examples of writing tasks for the three levels of Bloom's Taxonomy. Each set illustrates how a "leaky" (unclear, vague, and poorly crafted) writing task can be rewritten to become airtight.

KNOWLEDGE AND COMPREHENSION THINKING LEVEL

SOCIAL STUDIES/HISTORY

Leaky: Write a two-page report, double-spaced, describing the spice trade route and its influence on the Age of Exploration. Use at least two sources.

Airtight: The spice trade routes played an important part in the Age of Exploration. Copy a map of the spice trade routes. Explain each route in one paragraph. Your explanations should describe how at least four geographic features (e.g., mountains, bodies of water, deserts) influenced the decisions of the travelers. In another paragraph, describe the importance of spices during the 15th century. Include specific examples of at least two spices and describe what the spices were used for.

ENGLISH

Leaky: Watch the biographical movie *Amadeus* and write a three-page report summarizing the life of Wolfgang Amadeus Mozart. Use one other source about Mozart.

Airtight: Watch the movie *Amadeus* and discuss Mozart's challenges and choices. Describe three different challenges and three different choices in one paragraph each. Develop each paragraph by referring to specific scenes. Be sure to note names, dates, and places as you watch the film.

APPLICATION AND ANALYSIS THINKING LEVEL

INTERDISCIPLINARY

Leaky: Explain the workings of [a complex system, such as a nuclear reactor, municipal government in a large city, or the circulatory system].

Airtight: Explain the workings of [a complex system]. Begin by defining what a complex system is and identify the system of your report. Develop your report by explaining each of the following in one or more paragraphs: purpose, leadership, structure, and parts. Be sure to explain how the parts relate to the whole, to the leadership, and to one another in the functioning of the system. Write a one-paragraph proposal for your paper in which you explain why you chose this particular system and provide a general overview (one or two sentences) describing the system.

SOCIAL STUDIES

Leaky: Discuss the contributions of a historical figure who had an impact on society in the United States between the Civil War and World War I. Your report should be two to three pages in length.

Airtight: Analyze one positive and one negative aspect of the accomplishments of a controversial historical figure between the Civil War and World War I. A controversial person is someone who is positive to some and negative to others. Your analysis should be at least 10 paragraphs and include an overall summary of the person's professional accomplishments, the characteristics of the time, the place in which the person had influence, and specific examples of positive and negative accomplishments. Consider what types of people benefited from this person's accomplishments and what types of people suffered because of them.

SYNTHESIS AND EVALUATION THINKING LEVEL

SCIENCE

Leaky: Write a 10-page research paper that describes the process of cloning. Do you think humans will ever be cloned? If so, make a prediction as to when human cloning will happen and what the advantages or disadvantages will be.

Airtight: Write a researched position paper of at least 25 paragraphs that discusses the cloning process and ethical dilemmas. Approximately 20% of your report should describe the process and give some background of the technology of cloning. In the remaining 80%, present at least three specific cases of cloning and explain why each is either morally acceptable or unacceptable to you.

INTERDISCIPLINARY

Leaky: Write a 1,000-word position paper about animal rights. Give reasons for your opinions.

Airtight: Select one of the following areas of animal rights and write a position paper of 8 to 10 paragraphs:

- Animal rights regarding medical experimentation and research
- Animal rights regarding the cosmetics industry
- Animal rights and the protection of endangered species
- Animal rights regarding the food industry
- Animal rights versus the rights of the pet industry

Begin with an arguable thesis statement. State the issue(s) of controversy and who the stakeholders are. If advocacy groups speak for this issue, state who they are and their agendas. State your position clearly and support it with facts and figures, specific examples, analogies, historical background, and projections for the future. Support your facts and figures with research from a variety of sources, including disinterested (neutral) institutions as well as animal rights advocates and those with a commercial interest.

General Prewriting Guidelines for Essays

Note: Although essays—one type of formal writing—are sometimes referenced in this handout, these general guidelines apply to writing a variety of genres or text types across content areas. The guidelines are designed to help students become thoughtful and process-oriented, rather than product-oriented, readers and writers. These guidelines are not meant as a strict sequence for prewriting. Writing is a recursive process, and a student may choose to develop the thesis or central or controlling idea after generating and organizing ideas related to the topic.

Read and Understand the Prompt or Assignment

Prompts or writing assignments are often jam-packed with text, making it difficult to locate the key information that tells students what they need to know about the topic.

Suggestions for teaching students to read and understand writing prompts or assignments include the following:

- **Read** the entire prompt or assignment.
- **Reread** the prompt, sentence by sentence.
- **Circle words or phrases that are not recognized and understood.** Think about how the words are used. Try to figure out what the words mean in relation to the words surrounding them. Use a dictionary or thesaurus to determine and/or confirm word meanings.
- **Lightly section off information about writing logistics** (length/page requirements, grading criteria, formatting guidelines, due dates, etc.). Sectioning off logistics leaves the information directly related to the essay's specified topic and purpose. Although the logistical information is important, it can overwhelm and camouflage what the essay is supposed to be about.
- **Underline or highlight sentences that are questions or commands.** Look for key words, such as *argue*, *compare*, *cover*, *discuss*, or *list*. These key words also help to establish the purpose of an essay. Optional: Write the questions and imperatives at the top of the page.
- **Identify whether the topic is specified** or whether students have a choice of what to write about. If the topic is specified, do your students have a clear understanding of it?
- **Determine the purpose of the assignment or prompt.** Teach students to use the key words to determine the purpose. Is the purpose to explain or prove? Think about how the purpose affects the type of writing. Teach students to narrow the topic based on the purpose for writing.
- **Look for any information about the audience.** Teach students to search for information in the prompt or assignment about the audience. Teach students to think about what most people know about the topic.
- **Determine the type of essay required.** Teach students to use the prompt or assignment to imagine the kind of essay they will write. Have criteria been established for how the writing will be evaluated? Is a rubric included? Teach students to think about similar types of writing that they have done and to ask questions when they are not sure of the task.

Sample Key Words

Key Word	Description
Analyze	<ul style="list-style-type: none">• Break the issue or problem into separate parts. Discuss, examine, or interpret the parts and how they are related.• Look at the validity and persuasiveness of any reasons, supporting facts, or evidence given for a position. Determine whether the conclusion is justified on the basis of these claims.
Compare and Contrast	Describe similarities and differences between two or more objects, situations, or ideas. Consider providing before-and-after comparisons.
Define	Tell or explain what a particular word or term means in the essay. Go beyond a dictionary definition to clarify the way in which the term or phrase is used.
Describe	Give a detailed account, naming characteristics, parts, or qualities.
Discuss	Include explanations, reasoning, pro and con arguments, examples, analysis, and so forth.
Evaluate	Determine the value of something to discover how good or bad it is. Consider arguing that something is good or bad and explaining the logic of the reasoning. Use relevant evidence.
Explain	Help the reader understand the reasoning behind a position by showing logical development. Consider demonstrating how something works or how to do something step by step (procedural).
Illustrate	Give examples (do not draw pictures) to clarify and elaborate ideas.
Prove	Support opinions with logical arguments and evidence, including facts, expert opinions, quotations, and/or expressions of commonly accepted beliefs.
State	Tell the reader opinions and/or facts in a convincing and concise way.

Source: The California State University. (2008). *The California State University expository reading and writing course*. Long Beach, CA: Author.

Develop the Thesis Statement or Central/Controlling Idea

Tips for developing a clear and concise thesis or central/controlling idea include the following:

- **Get to the point.** Teach students to answer the question “What will you write about and why is it important?” Often, the answer to this question becomes the thesis.
- **Be sure of yourself.** Teach students to write like they believe it. Why should the reader believe a thesis or central/controlling idea if students do not sound like they believe it? Teach students to avoid words and phrases like *I think, I believe, might, maybe, and possibly*.
- **Do not believe the one-sentence myth.** Teach students that a thesis or central/controlling idea can be more than one sentence long. The thesis statement should be as concise as possible, but sometimes it may take more than one sentence to state the purpose and main focus or point of the essay.
- **Do not be afraid of change.** Teach students that if they realize they are writing about something different from the thesis or central/controlling idea—and they think the new idea is better than what was originally planned—to go with it and revise the thesis or central/controlling idea.
- **Clearly address the topic or prompt.** Questions to ask include the following:
 - **So what?** Does the thesis or central/controlling idea teach readers something new or challenge an idea they have? Why is it significant? Does it compel the reader to think differently or take action? How much background information do the readers need to understand the topic and the thesis? Why should the reader care about the topic or subject?
 - **What are its implications?** What will change if the thesis or central/controlling idea is true? Will people have to think differently, take action, and/or change a policy? Does the essay present a new or different perspective? Teach students to ask themselves whether they can support the thesis or controlling idea with evidence.
 - **Is it original?** Nothing is more boring to readers than something they have heard before. Although the author may believe passionately in something and want to present the argument or position in a certain way, he or she should try to offer something different from what most readers have already heard.
 - **Is it focused enough?** Focus on a sufficiently narrow aspect of the subject area. Topics that are too broad or large need to be limited or narrowed, so that the writer has a manageable topic to develop.

Generate and Organize Ideas Related to the Topic

After the topic or subject is identified and/or the thesis is developed, teach students to think about the main points and supporting ideas related to the topic. A variety of idea-generation strategies are typically taught and used to help students come up with these points and ideas. These strategies are designed to help students brainstorm as many related facts, examples, reasons, comparisons, contrasts, and causes and effects that they can think of before they begin to write their essays.

Typical brainstorming strategies include the following:

- **Free association.** As the most commonly used brainstorming technique, free association is useful for generating topic ideas and developing supporting arguments. This method can help students conceptualize a lot of different thoughts and ideas about their topic. The steps in this strategy include the following:
 - **Write the topic or thesis sentence** on the top of a piece of paper.
 - **Circle the key words.**
 - **List anything that relates to that topic.** Think of related terms from class and from readings. Include ideas that are related to the general topic.
 - **Examine the list.** Are any of your ideas similar or related? Divide these ideas into separate groups or connect them with lines.
 - **Weigh relevance.** Some ideas that do not relate to the topic may seem to have potential but do not have enough evidentiary support. Teach students not to include these ideas for now. Students can return to these ideas later if necessary.
- **Webbing and clustering.** Mapping ideas that come to mind about a topic is another popular brainstorming strategy. The strategy typically involves the following steps:
 - **Write a key word or phrase** in the center of a page with a circle drawn around it.
 - **Write related ideas** around the circle. Draw lines to signify which ideas should be classified together. Identify subtopics to the main topic during this process.
 - **Add supporting details** that branch off the subtopics.

By grouping ideas in this fashion, students begin to order and decide what they want to say and, often, how they want to say it. Once students have recognized how the ideas are clustered or structured in the web or map, students can focus their energy on drafting and explaining the branches or links between the main ideas and points.
- **Informal outlining.** This strategy involves listing main ideas and the details related to the topic in the order in which they will be addressed. If ideas are randomly listed during a free-association brainstorming activity, they can be numbered to show the proposed progression and development of ideas within the essay.

Source: The University of Texas at Austin Undergraduate Writing Center. (2001–2005). *Virgil: Online writing tutorial*. Retrieved from <http://uwc.utexas.edu>

The Whole Family Under One Roof?

Introduction



A Victorian family circa 1860 (Hulton Archive/Getty Images)

If you're like many Americans, you have just spent a few days in close quarters with your parents, grandchildren, siblings, etc. You're ready to go home, or ready for them to go home. But for a growing number of families in which adult children can't afford to live on their own, this is the new normal.

These "boomerang" children have been the butt of jokes on late-night television and even in commercials, but what's so bad about moving back in with your parents? Could extended families under one roof—a common arrangement in years past—be the way of the future?

The Only Faithful Human Institution

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December 27, 2011

I live on a cul-de-sac in Irvine, Calif., that includes eight 2,500-plus-square-foot homes. When we moved into the neighborhood 27 years ago, six of those homes included two baby-boom parents with children and two couples with empty nests. Now there are no longer children on our street, although adult kids are still living in two of the homes. In my house we now have three spare bedrooms — we keep the doors and the heating vent shut to conserve energy.

Houses like mine are a root of the current world financial crisis. In 2006, housing prices in the United States began to crash. That’s about when our last daughter left for college. Our house, along with millions of others across the country, literally became worth less when the last kid moved out. The demand for big houses declined even while the new home builders were madly adding more square feet. Circa 2012 housing in the U.S. has lost about a third of its value, down from \$25 trillion to \$16 trillion by some estimates. This sharp decline in value of the American housing stock has catalyzed a worldwide restructuring of our economic systems. And just wait until 2020 when the full burden of baby-boomer retirement and decrepitude is recognized.

The cure for this demographic disaster is the pooling of resources across generations that we are already seeing in America. The idea of the nuclear family is now obviously obsolete. We are all reverting to the old reliance on the extended family that anthropologist Margaret Mead correctly described as the only faithful human institution. The government won’t be there to help on this one. Boomerang kids are actually a blessing in disguise. They’re allowing us to relearn how to live in multigenerational arrangements as humans almost always have. Yes, the lessons for balancing proximity and privacy are tough, but such learning is essential for all of us in the 21st century.

I'm Not Seeing a Boomerang

Michael J. Rosenfeld, an associate professor of sociology at Stanford University, is the author of *"The Age of Independence: Interracial Unions, Same-Sex Unions and the Changing American Family."*

December 26, 2011

One of the stories parents like to tell ourselves is that our young adult children want to move back in with us. Our 20-somethings are referred to as the Boomerang Generation, noted for their failure to launch. There is just one problem with the story of the Boomerang Generation: It is not true.

Census data show that what is really new about young adulthood is the percentage of young adults who live on their own. From 1880 to 1970 the percentage of U.S. born women in their twenties who lived on their own (not with parents and not with a husband) was always less than 15 percent. By 1980, the percentage of young adult women who lived on their own had risen to 27 percent, and to 33 percent in 1990, to 39 percent in 2000, and to 42 percent today. The delay of marriage and the extension of singleness can make it appear as if young people are more likely to return to the parental nest. If one examines single people in their twenties, who are the people who have the option of living with their parents, the percentage who live with their parents is now about 45 percent. That may seem high but it isn't: in the past single people in their 20s nearly always lived with their parents.

The Great Recession has actually had no effect whatsoever on the percentage of young adults living with their parents in the United States. This is not so surprising; the (even greater) Great Depression did not affect family structure much, and neither did the Industrial Revolution. Family structure changes slowly over time. Economic ups and downs have little effect on who lives with whom.

A Sensible Use of Spare Rooms

Sharon Graham Niederhaus is a co-author with John L. Graham of *“Together Again: A Creative Guide to Successful Multigenerational Living.”*

December 27, 2011

The direct consequence of the turn of the century residential building boom is that now, in 2012, there are a lot of spare rooms in all those houses. Indeed, the chances are the greatest in the last 50 years that an adult family member is now living in your spare bedroom.

Multigenerational living is ahead for all of us. Baby boomers will be living with their kids as they begin to experience the infirmities of old age. By 2020 they'll need help with their disabilities, and the most sensible helpers will be members of the extended family living close by. The practice now of living together as adults across generations will be a big help.

Boomerang kids and baby boomers are learning about the balancing act between proximity and privacy that will be required in the modern families of the remainder of this century. Both physical structures and financial arrangements are being developed to accommodate such changes. For example, approximately one-third of American homes can be remodeled to include an accessory apartment with a separate kitchen and entrance. The major home builders have finally begun to experiment with such designs as well. Cross-generational financial agreements are burgeoning including shared real estate investments and adult children moving back home while saving money to repay college loans (which are exempt from bankruptcy proceedings).

Extended family members are already creatively designing a new future in these tough times. Indeed, now is the time to get ready for the coming changes in the American family.

Source: Multiple authors. (2011, December 26). The whole family under one roof? *The New York Times*. Reprinted with permission.

Authentic Writing Purposes

Purpose for Writing	Description
To inform and explain	<ul style="list-style-type: none">• State main point and purpose• Convey information accurately and objectively in an interesting way• Combine facts and information with writer's knowledge and experience
To express and reflect	<ul style="list-style-type: none">• Communicate personal thoughts, ideas, feelings, and life experiences• Think back to gain insight and contemplate what was learned
To persuade	<ul style="list-style-type: none">• Attempt to persuade reader to accept a particular position• Describe the problem, propose a solution, and provide justification and evidential support
To analyze and make inferences	<ul style="list-style-type: none">• Take apart and closely examine phenomena, people, places, or things that are difficult to understand or explain• Ask "how" and "why" questions that lead to a deeper understanding
To evaluate and make judgments	<ul style="list-style-type: none">• Focus on the value or worth of a person, object, idea, or other phenomenon• May specify the criteria as either "good" or "bad"
To question and explore	<ul style="list-style-type: none">• Wrestle with a question or problem• May lead to further in-depth research of a topic, another avenue of thinking, or a new area of inquiry

Source: Gallagher, K. (2011). *Write like this: Teaching real-world writing through modeling and mentor texts*. Portland, ME: Stenhouse.

Mathematical Written Responses

Mathematical written responses combine mathematics knowledge with writing skills to communicate computations and provide an analysis of the processes used to solve the problem. These types of responses are often used for open-ended questions that may have one correct answer, multiple answers, or more than one possible method of solution.

Sample Question

Students recorded attendance data for their homeroom over 2 weeks. Then the class calculated the percentage of students present. The results are shown in this table. What is the mode percentage of the attendance data? What is the mean percentage of the attendance data? What is the median percentage of the attendance data? Show and explain your work.

Homeroom Attendance Data		
December Dates	Students Present (21 Total)	% of Students Present
5	19	90%
6	21	100%
7	20	95%
8	19	90%
9	18	86%
12	17	81%
13	19	90%
14	15	71%
15	16	76%
16	20	95%

Sample Written Response

1. The mode of the students present in homeroom over the 2-week period from December 5 to 16 is 90%. Mode is the value that appears most often in the data. 90% appears three times.
2. The mean of the attendance data is 87%. Mean is the average of a set of numbers. To find the mean, I found the sum of the attendance percentages and divided by the number of percents.
 $90 + 100 + 95 + 90 + 86 + 81 + 90 + 71 + 76 + 95 = 874$
 $874 \div 10 = 87.4$
87.4 rounded to nearest whole number is 87.
3. The median of the attendance data is 90%. The median is the middle value in a list of statistics ordered from least to greatest. I listed the data from least to greatest. 90 is in the middle.
71 76 81 86 90 | 90 90 95 95 100

Activity

Identify the student's purpose for writing. Write the purpose and briefly explain your rationale.

Guidelines for Writing Mathematical Responses

1. Carefully read the question.
2. Locate (circle or underline) all the important information and data.
3. Identify the audience or readers of your writing. Questions to ask include the following:
 - Does the reader have the same degree of mathematical knowledge as I do? If not, does the reader have more or less?
 - Does the reader have the same mathematics vocabulary as me? Should I explain some words?
 - Has the reader already solved the problem? Is my purpose to show evidence that I can solve it?
 - Is my audience my teacher, peers, younger children, or adults?
 - Is my reader assessing my knowledge? Or am I simply explaining the process to my audience?
4. Break down the question into parts (a, b, c or 1, 2, 3).
5. Answer all parts of the question in an organized and focused manner.
6. Label each part of the question in your response.
7. Make connections between each step.
8. Include a response to each part of the question. Explain the sequence of steps to solve the problem and the strategy used.
9. Provide evidence of computation with correct results.
10. Include graphs, charts, number lines, and diagrams as needed.
11. Explain in complete sentences each step of the process to solve the problem. When possible, explain how you knew to do something (e.g., I used .25 or 25% because they are equal.).
 - Write a minimum of two sentences for each part.
 - Restate the question in the first sentence and include the answer.
 - Explain the process used to answer the question in subsequent sentences.
12. Use mathematics-specific vocabulary throughout the response.
13. Include definitions for vocabulary words to demonstrate understanding.
14. Revise your writing. Questions to ask include the following:
 - Is your answer clear and easy to understand?
 - Does each part of the question have an answer and process steps?
 - Have you used math vocabulary appropriately?
15. Edit the response to ensure your writing uses correct spelling, grammar, and mechanics.

Source: Scallin, S. M. (2006). Written response to mathematical questions: Computation and composition. In S. L. Pasquarelli (Ed.), *Teaching writing genres across the curriculum: Strategies for middle school teachers* (pp. 77–90). Greenwich, CT: Information Age.