

The following pages are select samples from
Issues and Science , Teacher Resources

The following resource on Writing Frames is from the Diverse Learners chapter of the full-year curriculum from SEPUP, *Issues and Science*. It can also be used to support classroom instruction with any material, particularly Lab-Aids kits available on this site.

The results of 20 years of research on the SEPUP program indicates positive effects on student learning in the following areas: content knowledge, problem-solving, decision-making, investigation skills, increased interest in science, and increased perception of the relevance of science to students' lives.



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WRITING FRAME

What It Is

A Writing Frame creates an outline. Two of these related Student Sheets are geared toward explanatory writing on evidence and trade-offs and designing investigations work. Through prompts and spaces for students to fill in short responses to the prompts, the Writing Frame leads students to develop headings, sentences, and main content points.

Why to Use It

Writing Frames are an excellent way for students to develop their ideas prior to writing extended Analysis item responses or to organize their ideas prior to completing a writing assignment. In *Issues and Science*, Writing Frames are most often provided where the teacher will assess students with the EVIDENCE AND TRADE-OFFS (E&T), CONSTRUCTING EXPLANATIONS (EXP), ENGAGING IN ARGUMENT (ARG), and PLANNING AND CARRYING OUT INVESTIGATIONS (PCI) Scoring Guides.

How to Use It

Teachers first provide direct instructions on the appropriate type of Writing Frame and the components it includes. For example, when introducing the E&T Writing Frame (see Literacy Student Sheet 4c), instruct students on the components essential to the structure of the essay, including an opening sentence that states the decision or conclusion each student has come to, inclusion of evidence that supports the decision or conclusion, and a discussion of the trade-offs associated with the conclusion.

NAME _____

DATE _____

WRITING FRAME – CONSTRUCTING AN EXPLANATION

1. I am explaining (add the observation, process, or event you want to explain):

2. Evidence and Reasoning

The *first* line of evidence (data, observations, or information) related to the explanation is:

Reasoning (how or why this evidence leads to your explanation):

(If appropriate) The *second* line of evidence (data, observations, or information) related to the explanation is:

Reasoning (how or why this evidence leads to your explanation):

(If appropriate) The *third* line of evidence (data, observations, or information) related to the explanation is:

Reasoning (how or why this evidence leads to your explanation):

3. A conclusion that summarizes your explanation:

NAME _____

DATE _____

WRITING FRAME – ENGAGING IN ARGUMENT

My Claim is: (statement to answer the question)

The Evidence (data and observations) related to the claim is:

1. _____

2. (if appropriate) _____

3. (if appropriate) _____

Reasoning: (how or why each piece of evidence supports the claim):

1. My reasoning is that _____

2. (if appropriate) _____

3. (if appropriate) _____

NAME _____

DATE _____

WRITING FRAME – EVIDENCE AND TRADE-OFFS

There is a lot of discussion about the issue of _____

My decision is that _____

My decision is based on the following evidence:

First, _____

Second, _____

Third, _____

People who disagree with my decision might say that _____

NAME _____

DATE _____

WRITING FRAME – PLANNING AND CARRYING OUT INVESTIGATIONS

The purpose of my investigation is to _____

The variable I am testing is _____

The variables that I am keeping the same are _____

I will need the following materials: _____

Qualitative data I will collect include _____

Quantitative data I will collect include _____

I will record my data in a table. I will create my data table on the back of this sheet.

My conclusion is that _____

The evidence and reasoning that lead me to this conclusion is _____
