

Support Materials from video series: *Reading, Writing, and Science: The Perfect Combination*

Writing Frames (from *Sentence Frames for Reading, Writing, and Forming Science Knowledge*)

Compare:

- _____ is similar to _____ because both _____

Contrast:

- _____ is different from _____ because one _____ while the other _____.

Disproved Prediction:

- If _____ then _____ would have _____. However, _____.

Cause and Effect:

- _____ (cause) causes _____ (effect) by _____.
- Since/Because/Due to _____ (cause), _____ (effect) _____.
- _____ (effect), since/because/due to _____ (cause) _____.

Making an Argument (from *Writing about Claims, Evidence, and Reasoning*)

Claim

- I claim that _____.
- Our research shows _____.

Evidence

- When we _____, we saw that _____.
- When we did _____, it measured _____.
- This evidence tells me that _____.

Reasoning

- This evidence tells me that _____.
- This evidence supports the claim because _____.
- Since we know _____, we can tell that _____.

Rebuttals for Counter-Arguments

- If _____ (were true), then _____ would have _____. However, _____.



Generic Evaluation Rubric

(Plan ahead: Identify what you are looking for before you give the assignment)

	Yes	Partially	Not at All
Claim Is the claim accurate based on the data? (Plan ahead: what claim would you be expecting to see here?)			
Evidence Is the evidence appropriate and sufficient to support the claim? (Plan ahead: what evidence would you expect them to share?)			
Reasoning Are the appropriate scientific principles discussed? (Plan ahead: what concepts do they need to discuss to support their evidence?)			

New Science Words (from *Reading Strategies II; Problem-Solving Tools*)

Common ways that definitions are signaled in writing

Example	Explanation
Some of the bacteria are anaerobes. Anaerobes do not need oxygen to live.	The sentence after the term provides the definition.
The bacteria that do not need oxygen to live, called anaerobes...	The new term is signaled by the word <i>called</i> .
Some bacteria are anaerobes, which means they do not need oxygen to live.	The definition is signaled by the phrase <i>which means</i> .
Anaerobes, or bacteria that do not need oxygen to live, ...	The word <i>or</i> after a comma indicates that the word and the phrase mean the same thing.
Some bacteria do not need oxygen to live. These anaerobes...	This is the trickiest situation. The text doesn't directly say what the word means, but implies it by using the word and the definition close together.

Signal Words (from *Signal Words for Reading, Writing, and Forming Science Knowledge*)

Signal Words: Contrast

- However
- In contrast
- On the other hand
- Conversely
- Whereas
- Alternatively
- Instead
- (but, yet, and while *sometimes* indicate a contrast)

Signal Words: Comparison:

- Similarly
- In the same way
- Just like
- Just as
- Likewise
- Also
- Too

Signal Words: Cause and Effect

- Consequently
- So
- As a result
- Therefore
- Because
- For this reason
- Thus
- Hence
- In response to
- (since *often* indicates cause and effect)

Signal Words: Examples

- For example
- Like
- Including
- Such as
- To illustrate
- For instance

Signal Words for Reading and Writing		
Compare	<ul style="list-style-type: none"> • Similarly • In the same way • Just like 	<ul style="list-style-type: none"> • Just as • Likewise • Also
Contrast	<ul style="list-style-type: none"> • However • In contrast • On the other hand • Conversely • Whereas 	<ul style="list-style-type: none"> • Alternatively • Instead • (but, yet, and while <i>sometimes</i> indicate a contrast)
Cause and Effect	<ul style="list-style-type: none"> • Consequently • So • As a result • Therefore • Because 	<ul style="list-style-type: none"> • For this reason • Thus • Hence • In response to
Examples	<ul style="list-style-type: none"> • For example • Like • Including 	<ul style="list-style-type: none"> • Such as • To illustrate • For instance

Writing Frames	
Claim	<ul style="list-style-type: none"> • I claim that _____ . • Our research shows _____ .
Evidence	<ul style="list-style-type: none"> • When we _____, we saw that _____. • When we did _____, it measured _____ . • This evidence tells me that _____.
Reasoning	<ul style="list-style-type: none"> • This evidence tells me that _____ . • This evidence supports the claim because _____ . • Since we know _____, we can tell that _____ .
Compare	_____ is similar to _____ because both _____
Contrast	_____ is different from _____ because one _____ while the other _____.
Disproved Prediction	If _____ then _____ would have _____. However, _____.
Cause and Effect	<ul style="list-style-type: none"> • _____ (cause) _____ causes _____ (effect) _____ by _____. • Since/Because/Due to _____ (cause) _____, _____ (effect) _____. • _____ (effect) _____, since/because/due to _____ (cause) _____.