Outcomes/Agenda:

• Identify types of writing in your class that use C-E-R
• Examine levels of complexities for creating Claims, and for Student Responses
• Learn how to use a new C-E-R Graphic Organizer to support students by using it
Claims – Evidence – Reason Writing

One of the basic types of writing. Applies to:
- Opinion/ Augmentative Writing  CCSS W.1
- Expository Writing        CCSS W.2

Sample text types:
- Constructed responses (SBAC)
- Performance Assessments (SBAC)
- Research Reports
- Public Service Announcements
- Lab Reports
- Essays
- Debates
- Editorials
- Speeches
• Which of these types of writing do you use in your teaching?

• Constructed responses
• Performance Assessments
• Research Reports
• Public Service Announcements

• Lab Reports
• Essays
• Debates
• Editorials
• Speeches
The Stages of Claims - Evidence - Reason

Adapted from Supporting Grade 5-8 Students in Constructing Explanations in Science by Katherine L. McNeill & Joseph S. Krajcik
The Stages of Claims - Evidence - Reason

1. Claim
2. Evidence
3. Reasoning
The Stages of Claims - Evidence - Reason

1. Claim
2. Evidence
   - Appropriate
   - Sufficient
3. Reasoning

Complex

Complexity of Student Response

Simple
The Stages of Claims - Evidence - Reason

1. Claim
2. Evidence
   - Appropriate
   - Sufficient
3. Reasoning
   - Multiple Components
The Stages of Claims - Evidence - Reason

1. Claim
2. Evidence
   • Appropriate
   • Sufficient
3. Reasoning
   • Multiple Components

Counter Claim / Rebuttal

Complexity of Teacher and Student Questions

Complexity of Student Response

Simple
The Stages of Claims - Evidence - Reason

1. Claim
2. Evidence
   - Appropriate
   - Sufficient
3. Reasoning
   - Multiple Components

Counter Claim / Rebuttal

Complexity of Teacher and Student Questions

Complexity of Student Response

Very Focused: 1 of 2 options (e.g., yes or no)
The Stages of Claims - Evidence - Reason

Complexity of Teacher and Student Questions

Complex

1. Claim
2. Evidence
   • Appropriate
   • Sufficient
3. Reasoning
   • Multiple Components
   Counter Claim / Rebuttal

Simple

1. Claim
2. Evidence
   • Appropriate
   • Sufficient
3. Reasoning

Very Focused: Multiple options
Each option can be a fairly complete answer

Very Focused: 1 of 2 options (e.g., yes or no)

1. Claim
2. Evidence
3. Reasoning
The Stages of Claims - Evidence - Reason

1. Claim
2. Evidence
   • Appropriate
   • Sufficient
3. Reasoning
   • Multiple Components

Counter Claim / Rebuttal

Complexity of Teacher and Student Questions

Complex

Very Broad: Multiple options
Answer is a combination of the different options

Very Focused: Multiple options
Each option can be a fairly complete answer

Very Focused: 1 of 2 options (e.g., yes or no)

Simple

1. Claim
2. Evidence
3. Reasoning

Complexity of Student Response

Simple
1. Claim
2. Evidence
   • Appropriate
   • Sufficient
3. Reasoning
   • Multiple Components

Counter Claim / Rebuttal

Very Focused: 1 of 2 options (e.g., yes or no)
Complexity of Teacher and Student Questions

- Simple
- Complex

1. Claim
2. Evidence
   - Appropriate
   - Sufficient
3. Reasoning
   - Multiple Components

Counter Claim / Rebuttal

Very Focused:
Multiple options
Each option can be a fairly complete answer

Complexity of Student Response

- Simple
- Complex
1. Claim
2. Evidence
   • Appropriate
   • Sufficient
3. Reasoning
   • Multiple Components

**Counter Claim / Rebuttal**

1. Claim
2. Evidence
   • Appropriate
   • Sufficient
3. Reasoning
   • Multiple Components

Very Broad:
Multiple options
Answer is a combination of the different options
To apply C-E-R to their writing, first students have to know:

What is a claim?
What is substantial evidence?
What is a relevant reason?
Claim

In writing, a claim is a statement about the solution to a problem or question.

Question:
Will supporting students with C-E-R writing improve their understanding of the content?
Evidence

In writing, evidence is a **specific fact** that supports a claim.

In **science**, the fact is often referred to as "**data**".

Please help students understand that evidence is **NOT** an opinion!
Is It a Claim, or Is It Evidence

Partner A tell Partner B
Granite has many small crystals
Partner B tell Partner A
Granite is an Igneous Rock
Partner A tell Partner B
Combining vinegar and baking soda creates a chemical reaction
Partner B tell Partner A
The reaction produced bubbles (a gas)
In writing, reasons explain why your evidence proves your claim to be true.

In science, this usually includes the science principle involved.
In other words

Claim + Evidence + Reasoning = Explanation
Let’s apply what we have just seen.
Graphic Organizer for C-E-R

Claims – Evidence – Reasoning (C-E-R) Writing Graphic Organizer

Remember: The purpose of this Graphic Organizer is to help make connections between the claim, the evidence of that claim, and the reason that the evidence supports that claim. The order that you use it doesn’t matter (questions first, claim first, evidence first, or reason first).

Question

Claim

Evidence

Transition Words Source

Reason:

Evidence

Transition Words Source

Reason:

Evidence

Transition Words Source

Reason:

Conclusion

Transition Words

Claims-Evidence-Reasoning Writing
Graphic Organizer for C-E-R

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Transition Words

Source

Reason:

Evidence

Transition Words

Source

Reason:

Evidence

Transition Words

Source

Reason:

Conclusion

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Question

Claim

Evidence

Transition Words | Source

Evidence

Transition Words | Source

Reason:

Evidence

Transition Words | Source

Reason:

Conclusion

Transition Words

Claims-Evidence-Reasoning Writing

Santa Clara County Office of Education
Graphic Organizer for C-E-R

Claims – Evidence – Reasoning (C-E-R) Writing Graphic Organizer

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- Question
- Claim

- Evidence
  - Transition Words
  - Source

- Evidence
  - Transition Words
  - Source

- Evidence
  - Transition Words
  - Source

- Conclusion
  - Transition Words
Transition Words

- Act as a roadmap for the reader
- Signal readers how to organize what they are about to read in context with what they have previously read.

Words that can be used to **sequence events**:
- prior to
- since
- first, second
- last
- finally
- at the same time
- to emphasize
- to begin with

Words that can be used to **emphasize a point**:
- again
- truly
- especially
- for this reason
- to repeat
- in fact
- to emphasize

Words that can be used to **clarify**:
- that is
- for instance
- in other words

Words that can be used to **add information**:
- again
- another
- for instance
- for example
- also
- and
- moreover
- additionally
- as well
- besides
- along with
- other
- next
- finally
- in addition

Word that can be used to **compare** two things:
- likewise
- also
- while
- in the same way
- like
- as
- similarly

Words that can be used to **contrast** two things:
- but
- still
- although
- on the other hand
- however
- yet
- otherwise
- even though

Words that can be used to **conclude or summarize**:
- finally
- as a result
- to sum up
- in conclusion
- lastly
- therefore
- all in all
- because
Graphic Organizer for C-E-R

Claims – Evidence – Reasoning (C-E-R) Writing Graphic Organizer

Remember: The purpose of this Graphic Organizer is to help make connections between the claim, the evidence of that claim, and the reason that the evidence supports that claim. The order that you use it doesn’t matter (questions first, claim first, evidence first, or reason first).

- Question
- Claim

Evidence
- Transition Words
- Source
- Reason

Evidence
- Transition Words
- Source
- Reason

Evidence
- Transition Words
- Source
- Reason

Conclusion
- Transition Words

Claims-Evidence-Reasoning Writing
Graphic Organizer for C-E-R

The purpose of this Graphic Organizer is to help make claims, evidence of that claim, and the reasoning so you use it doesn't matter (questions first, claim first, evidence first).

Question

Claim

Evidence

Source

Evidence

Source

Evidence

Source

Conclusion
Darwin’s Finches

In the Pacific Ocean, 500 miles off the west coast of Ecuador, lay the Galápagos Islands. On the islands, there are over a dozen species of small birds called Darwin’s Finches. The different bird species are all basically the same except for their beaks. Each species’ beak is a different size and shape, and each beak is specialized for the type of food that the bird eats.
Directions for Classroom:

1. Read “Darwin’s Finches”
2. Note any words or ideas that you don’t understand.
3. Discuss problematic words and ideas.
4. Read the question, and write your claim.
Darwin’s Finches

Directions for Classroom (continued):

5. Read “Darwin’s Finches” a 2nd time.
6. Underline evidence that supports your claim.
7. Draw a box around the reason in the article that supports each piece of evidence.
Darwin’s Finches

In the Pacific Ocean, 500 miles off the west coast of Ecuador, lay the Galapagos Islands. On the islands, there are over a dozen species of small birds called Darwin’s Finches. The different bird species are all basically the same except for their beaks. Each species’ beak is a different size and shape, and each beak is specialized for the type of food that the bird eats.
8. Transfer each piece of evidence with the related reason to the C-E-R graphic organizer.
9. Remember to include your source.
10. Summarize in the conclusion.
11. Selection transition words.
12. Write paragraph.
**Question**
What will most likely happen to the finch population if the large seed plants became extinct?

**Claim**
If the large seed plants died out, the finches with large beaks would go extinct.

**Evidence 1**
- **Transition Word**: Firstly
- Each species’ beak is a different size and shape
  - **Reason**: Specialized for the type of food
  - **Source**: Darwin’s Finches paragraph 1

**Evidence 2**
- **Transition Word**: Also
- Small and narrow beaks
  - **Reason**: Eat small seeds
  - **Source**: Darwin’s Finches paragraph 2

**Evidence 3**
- **Transition Word**: Lastly
- Large beaks
  - **Reason**: Eat large seeds
  - **Source**: Darwin’s Finches paragraph 2

**Conclusion**
- **Transition Word**: Therefore
- The large beaked birds would no longer have a food source and, because of the specialization of their beak, would not be able to compete and would be naturally selected against.
If the large seed plants died out in the Galapagos Island, I believe that the finches with large beaks would go extinct. Firstly, as explained in the first paragraph of “Darwin’s Finches”, each species’ beak is a different size and shape. Each beak’s size and shape makes it specialized to eat a different type of food more easily. Also, paragraph 2 of the same articles goes on to say that finches with small and narrow beaks survive by gathering small seeds or hunting insects. Lastly, the large beaked finches eat large seeds. Therefore, I believe that if the large seed plants died out, the large beaked birds would no longer have a food source and, because of the specialization of their beaks, these finches would not be able to survive.
Why is this important?

- It is the basis of much of the CCSS Writing Standard #1 – Argumentative Writing
  Standard #2 – Explanatory Writing
  Standard #4 – Clear, organized writing
  Standard #8 – Use evidence from multiple sources
  Standard #9 – Draw evidence from text

- It is the basis of NGSS Science and Engineering Practices
  #6 – Constructing Explanations . . .
  #7 – Engaging in Argument from Evidence
  #8 – . . . evaluating and communicating information
Claims-Evidence-Reasoning Writing

Why is this important?

♦ Writing helps students learn:
  - It forces them to organize their thoughts and find relationships between ideas.
  - Writing holds ideas in place long enough for students to think about them.
  - Writing helps get all students to participate in learning.

♦ Writing helps you (as the teacher) spot misconceptions.
Claims - Evidence - Reason Writing

What does Claims - Evidence - Reasoning writing look like in some of these types of writing?

- Constructed responses
- Performance Assessments
- Research Reports
- Public Service Announcements
- Lab Reports
- Essays
- Debates
- Editorials
- Speeches
C-E-R in Constructed Response

State the Claim. State the first piece of evidence with its source and the reason that is supports the claim. State the second piece of evidence with its source and the reason that is supports the claim. State the third piece of evidence with its source and the reason that is supports the claim. Summarize the support for the claim in the concluding sentence.
C-E-R in Constructed Response

• Claim
• Evidence 1 & Reason 1
• Evidence 2 & Reason 2
• Evidence 3 & Reason 3
• Conclusion summarizes the reasons & evidence.
C-E-R in a Lab Report

Hypothesis is the Claim
The Data is the Evidence
The Conclusion is the science principle that support all the evidence.
C-E-R in a Lab Report

• Claim
• Evidence 1
• Evidence 2
• Evidence 3

• Conclusion summarizes Reason 1, Reason 2, and Reason 3.
Claims - Evidence - Reason Writing

Sample text types:
- Constructed responses
- Performance Assessments
- Research Reports
- Public Service Announcements
- Lab Reports
- Essays
- Debates
- Editorials
- Speeches

How could you use this graphic organizer to support students C-E-R writing for some of these different writing types?
Relationships and Convergences

Found in:
1. CCSS for Mathematics (practices)
2a. CCSS for ELA & Literacy (student capacity)
2b. ELPD Framework (ELA “practices”)
3. NGSS (science and engineering practices)

Notes:
1. MP1–MP8 represent CCSS Mathematical Practices (p. 6–8).
2. SP1–SP8 represent NGSS Science and Engineering Practices.
4. EP7* represents CCSS for ELA student “capacity” (p. 7).

Stanford Graduate School of Education

Understanding Language

Suggested citation:
Outcomes/Agenda:

- Identify types of writing in your class that use C-E-R
- Examine levels of complexities for creating Claims, and for Student Responses
- Learn how to use a new C-E-R Graphic Organizer to support students by using it
Any questions about C-E-R Writing or the Graphic Organizer?

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