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Conductors and Insulators

Despite the differences between conductors and insulators, they are both needed to create electric charges. Neither is more impo… than the other. As a team, they keep the electricity flowing and the lig…

Types of Conductors

Several types of conductors can be used to create p… the most popular: silver (the best conductor), alumin… mercury, and iron.

Conductors and Insulators

Think about the power lines that run along your street. The wire inside is made of metal, such as aluminum or copper. Because it's made of metal and allows electricity to pass through it, it is called a conductor. Its ability to do this is why we have electricity in our homes. You cannot actually see the wire inside of the power line. What we see on the outside is a rubber casing. This rubber casing is an insulator. Th…

Conductors and Insulators

Name:

6. What does the word prevent mean?
   a. likes
   b. wants
   c. allows
   d. stops

7. Which part of a power line is the conductor, and which part is the insulator?
   a. conductor: wire coating; insulator: metal wire
   b. co…
   c. co…
   d. co…

8. Which of the…
   a. a…
   b. c…
   c. …
   d. …

9. What is the…
   a. …
   b. …
   c. …
   d. …

10. What do…

…insulators?
…go while insulators s…
…it shouldn't go, while…
…conductors are not
…s, while conductors …

Annotate the Text

1. Number the paragraphs
2. Underline important statements
3. Circle unknown words
4. Question?

Name:

Conductors and Insulators

1. Select the word or phrase from the paragraph that helps the reader understand the meaning of the word barrier.
   a. conductors could interact or combust
   b. called an insulator
   c. necessary to have around conductors to protect them
   d. insulators have a more difficult time

2. What evidence does the author use to support the idea that both conductors and insulators are important?
   a. they keep electrons safe by containing them
   b. [there are] differences between conductors and insulators
   c. all things are made up of atoms
   d. they are both needed to create electric charges

3. Where in the text does the author show evidence to support the claim that insulators make sure electricity doesn't flow to the wrong places?
   a. Paragraph 2
   b. Paragraph 3
   c. Paragraph 4
   d. Paragraph 5

4. What is the main idea of paragraph 3?
   a. insulators have a hard time carrying electric currents
   b. metal is a great conductor that carries power
   c. our homes and businesses need power
   d. atoms have electrons inside

5. Which of the following details is most important to the topic of why insulators don't carry energy?
   a. [insulators create] a barrier around conductors to protect them

This resource includes:

- Teacher Tips
- Questions to Ask Students
- Student Bookmarks:
    - Close Reading Steps
    - Annotate/Mark the Text
- Informational Text: Conductors and Insulators
- 10 Multiple Choice Questions
- 7 Graphic Organizers
- Answer Key

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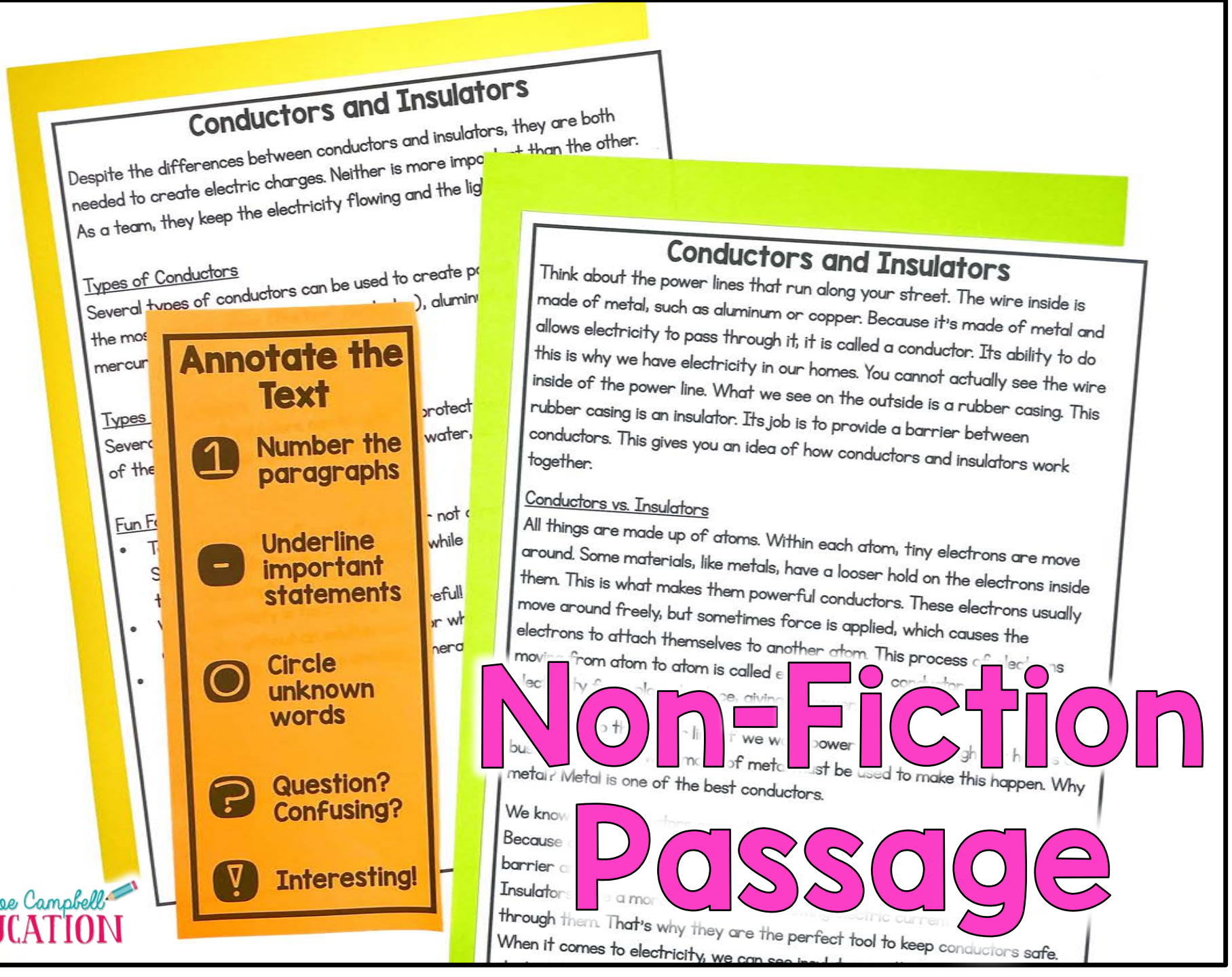
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Conductors vs. Insulators
All things are made up of atoms. Within each atom, tiny electrons are move around. Some materials, like metals, have a looser hold on the electrons inside them. This is what makes them powerful conductors. These electrons usually move around freely, but sometimes force is applied, which causes the electrons to attach themselves to another atom. This process
from atom to atom is called
we w
ower
of meta
st be used to make this happen. Why
metal? Metal is one of the best conductors.
We know
Because
barrier
Insulator
a mo
through them. That's why they are the perfect tool to keep conductors safe.
When it comes to electricity, we can see
Non-Fiction Passage
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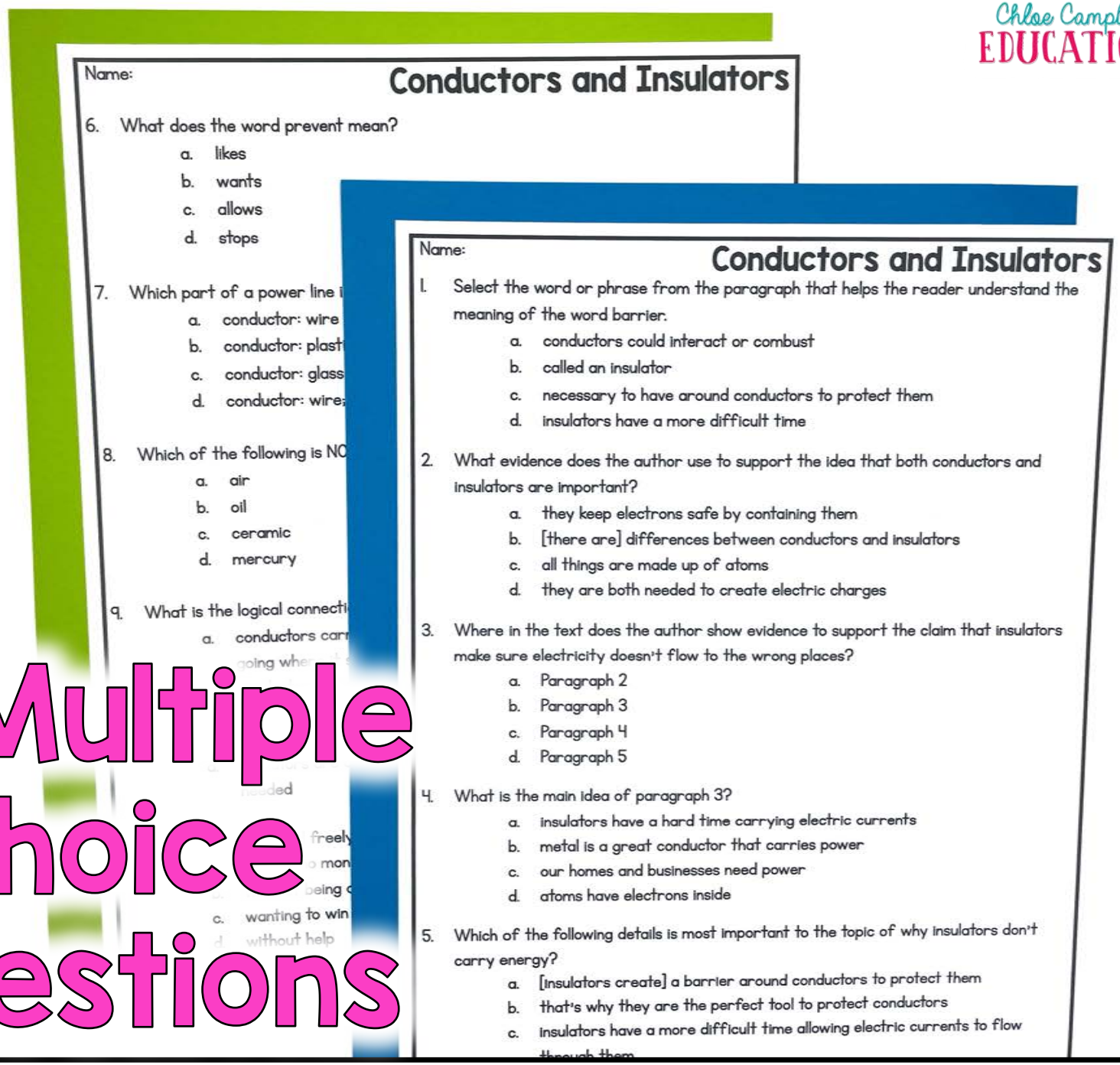

10 Multiple Choice Questions

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Close Reading

Close Reading: A reading strategy that is used to comprehend and analyze a text closely. Students will typically read the text at least twice for comprehension, details, analysis, and deep questioning of the text's purpose and meaning.

Steps for Close Reading:

1. Read the Text
2. Mark Up the Text or Annotate the Text
3. Read the Text Again
4. Define Unknown Words
5. Read the Text Again
6. Respond to Reading

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Teacher Tips & Suggestions

Includes:

- Teacher Tips
- Questions to Ask Students
- Close Reading Steps - Bookmark
  - Version with "Mark the text"
  - Version with "Annotate the text"
- Steps to "Mark the Text" Bookmark
- Steps to "Annotate the Text" Bookmark
- Informational Text: The
- 10 Multiple Choice Questi
- 7 Graphic Organizers

Questions to Ask Students

- What is the text mostly about?
- Who is the audience for this text?
- What's is the writer's purpose of this text?
- What's your favorite part of the passage?
- What words are new to you? What do you think the words mean?
- What detail stands out to you?
- What questions do you now have about the topic?
- If you can ask the author 2 questions, what would yo ask them?
- In this paragraph, what is the author saying?
- What is the structure of the text? How does it help

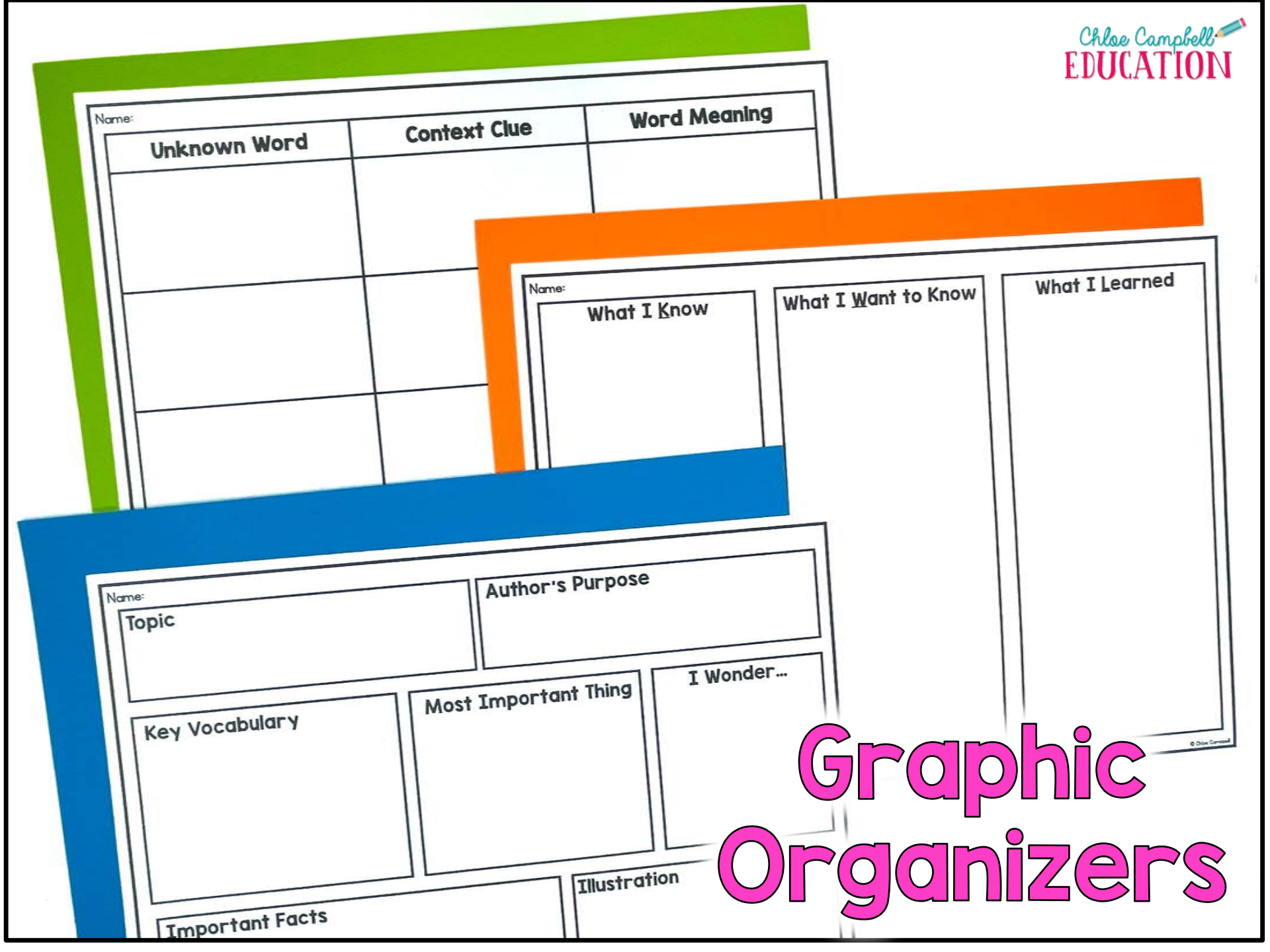
Teacher Tips

Close reading: A reading strategy that is used to comprehend and analyze a text closely. Students will typically read the text at least twice for comprehension, details, analysis, and deep questioning of the text's purpose and meaning.

1. Read the Text: When students read the text for the first time, they are reading just to identify what the passage is mostly about. The first read is surface level and allows the students to understand the gist of the text.
2. Mark Up the Text or Annotate the Text: Encourage students to use their annotation bookmarks (provided below) to make notes directly on the text. Students can write in the margins, use sticky notes to make notes, use color coding. You can even slip the text inside a dry-erase pocket and encourage students to use dry-erase markers to mark up the text.
3. Read the Text Again: If the teacher is working with the students for this, the teacher can read the text aloud this time. Model think-alouds and use expression while you read. If students are working with partners in a station, encourage them to each read a paragraph then switch readers.
4. Define Unknown Words: During this step, invite students to circle any unknown or unfamiliar words. Use the provided graphic organizer to select 4-5 unknown words and work to identify the meaning of each word.
5. Read the Text Again: With this third time reading the text, encourage the students to read the passage independently.
6. Respond to Reading: Students will now use the text to answer the 10

Graphic Organizers

- Main Ideas with Text Evidence
- Central Ideas with Text Evidence
- Central Ideas with Details
- Main Idea, Details, Conclusion
- KWL: What I Know, What I Want to Know, What I Learned
- Overview: Topic, Author's Purpose, Key Vocabulary, Most Important Thing, I Wonder, Important Facts, Illustration
- Context Clues (3 Versions: 3 words, 4 words, 5 words)
- Arthropods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Name:
Unknown Word
Context Clue
Word Meaning
Name:
What I Know
What I Want to Know
What I Learned
Name:
Topic
Author's Purpose
Key Vocabulary
Most Important Thing
I Wonder...
Important Facts
Illustration
Graphic Organizers

Ideas for Use

- Science or ELA Stations
- Whole Group Instruction
- Partner Practice
- Guided Reading Groups
- Substitute Plans
- Send home to practice
- ELA Work Stations or Centers
- Assessment

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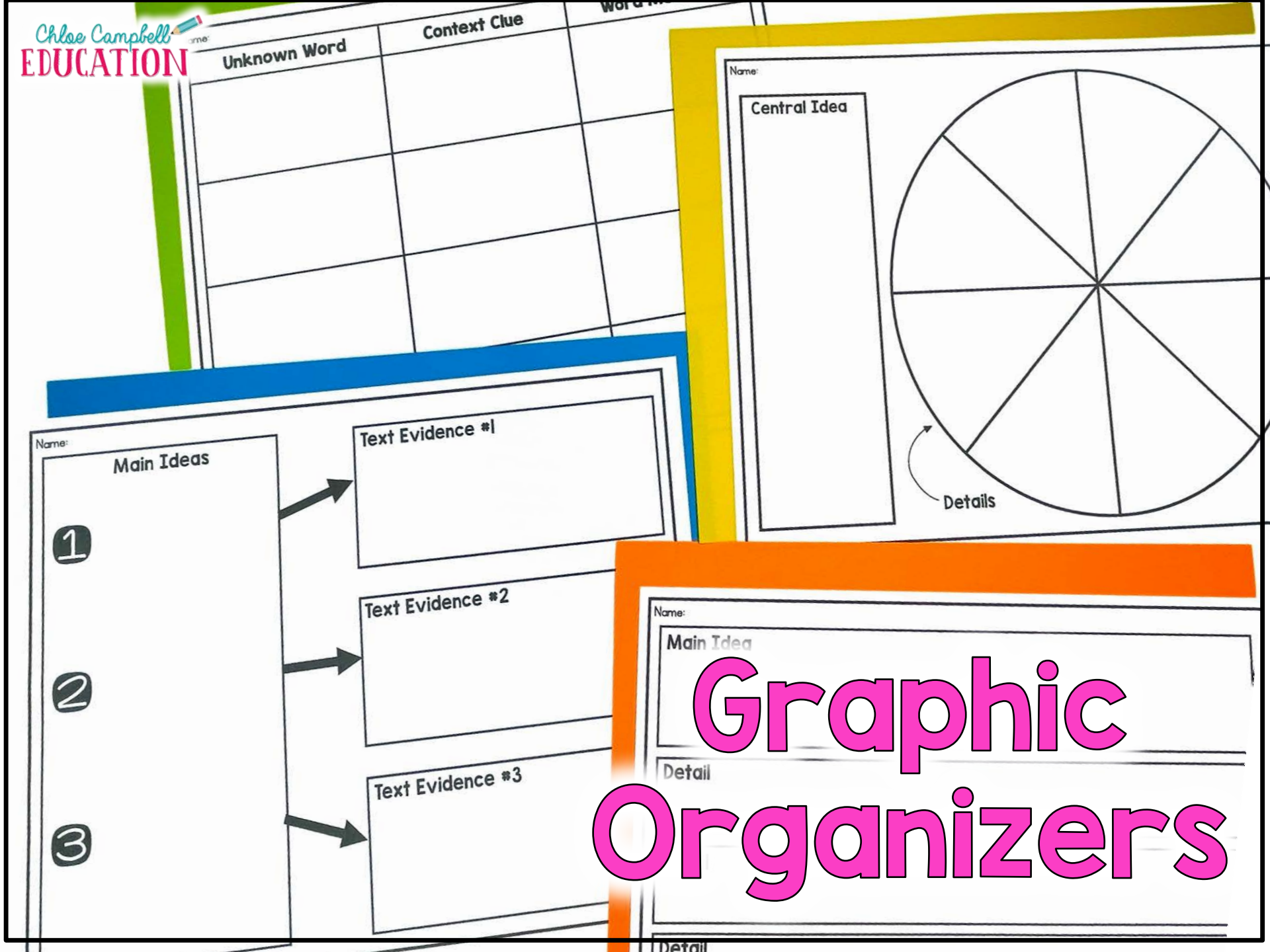

Graphic Organizers

Purchase now to connect science and literacy in your classroom!

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