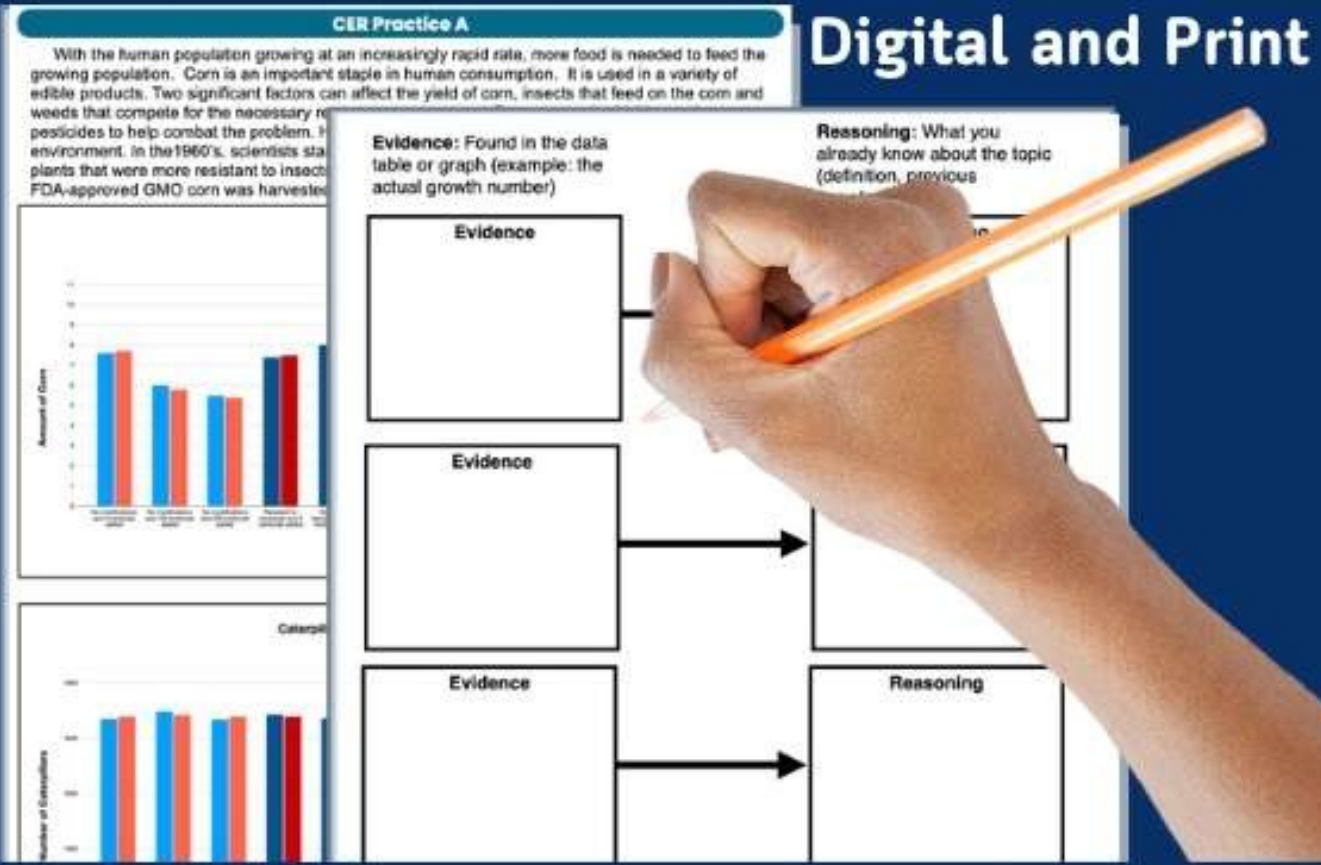


HUMAN INTERACTION

CER Practice



CER

Digital and Print

CER Practice A:

With the human population growing at an increasingly rapid rate, more food is needed to feed the growing population. Corn is an important staple in human consumption. It is used in a variety of edible products. Two significant factors can affect the yield of corn, insects that feed on the corn and weeds that compete for the necessary resources. Scientists have developed two different methods to help combat the problem. In the 1960's, scientists started using pesticides to help combat the problem. In the 1990's, scientists started using plants that were more resistant to insects. In the 2000's, scientists started using FDA-approved GMO corn was harvested.

Evidence: Found in the data table or graph (example: the actual growth number)

Reasoning: What you already know about the topic (definition, previous knowledge, etc.)

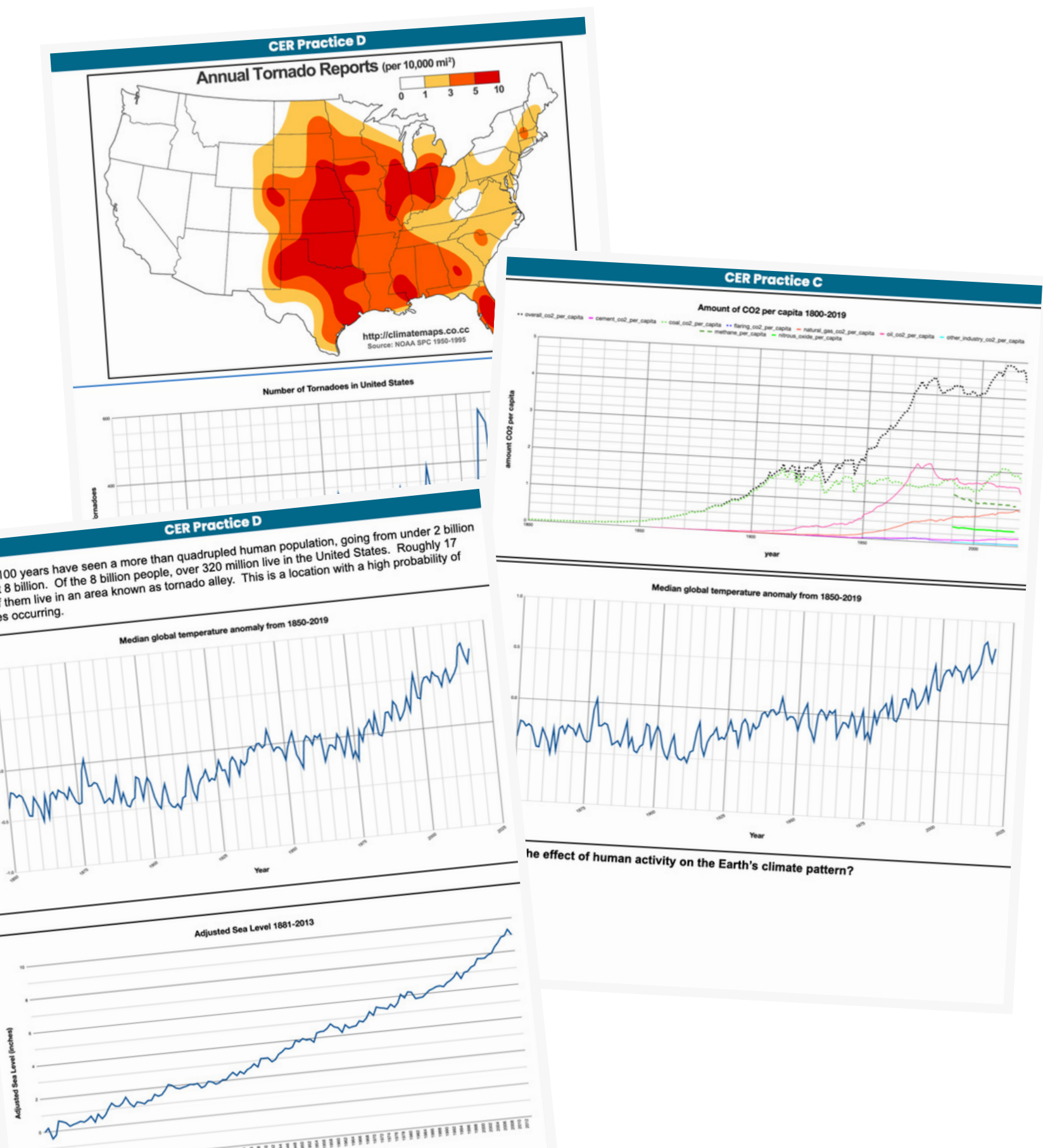
**4 experiments to analyze,
Writing Support, Grading Rubric
Human Impact Practice**

Scroll Through

To take a peek inside!

Help students analyze data, interpret graphs, pull out key details from passages, and then share their findings in a CER.

DO YOUR STUDENTS STRUGGLE WITH



- ✓ Interpreting graphs
- ✓ Finding the key details in passages
- ✓ Using evidence to support a claim
- ✓ Using reasoning to link the evidence to the claim

I've Got You Covered

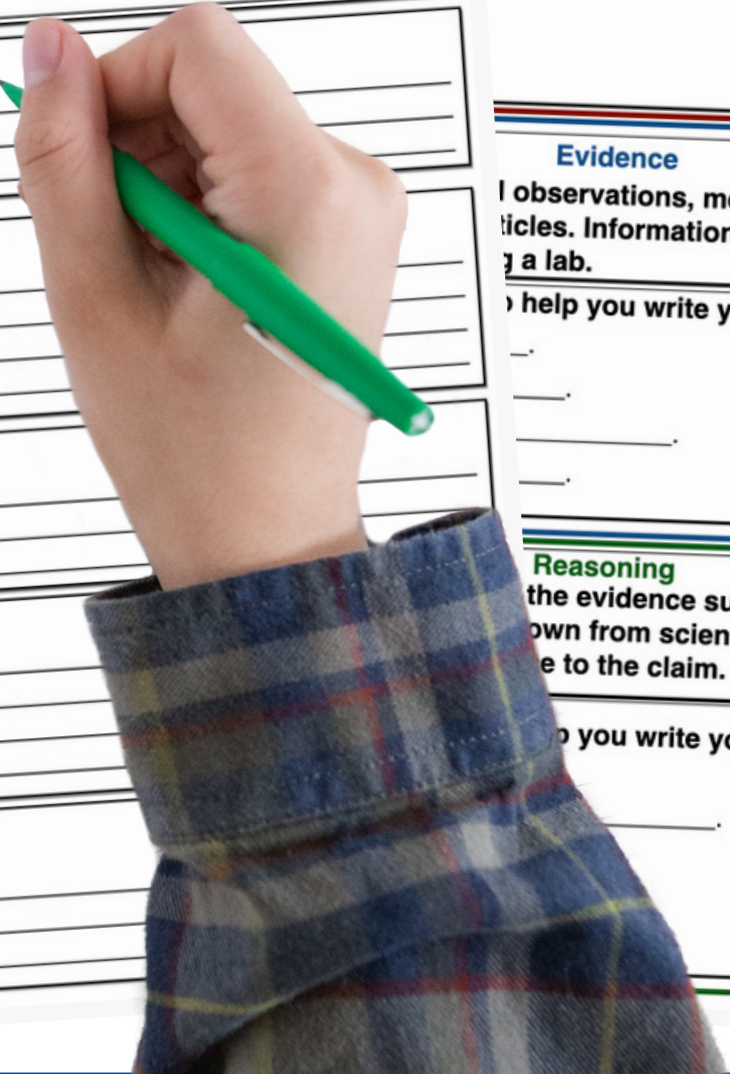
- ✓ Simple one page background information students can use for the reasoning
- ✓ Data tables and graphs to interpret
- ✓ Scenarios for students to pull out key details
- ✓ Graphic organizers to help students sort their evidence from their reasoning
- ✓ Sentence support to help them write their CER
- ✓ Self-assessment check list



"Students have been really focusing on CER this year in preparation for transitioning to high school. This proved to be challenging as they had to APPLY the context clues given in the written section and the lab results section. I loved that for them. It wasn't too easy! Definitely will be using again this year!" - Jaime S.

HUMAN IMPACT

CER Practice



The image shows a hand holding a green pen, writing on a CER Practice worksheet. The worksheet is divided into sections for Question, Claim, Evidence 1, Reasoning 1, Evidence 2, Reasoning 2, and Concluding sentence. The hand is currently writing in the Evidence 1 section.

Question:

Claim:

Evidence 1:

Reasoning 1:

Evidence 2:

Reasoning 2:

Concluding sentence:

What Are *students* Doing?

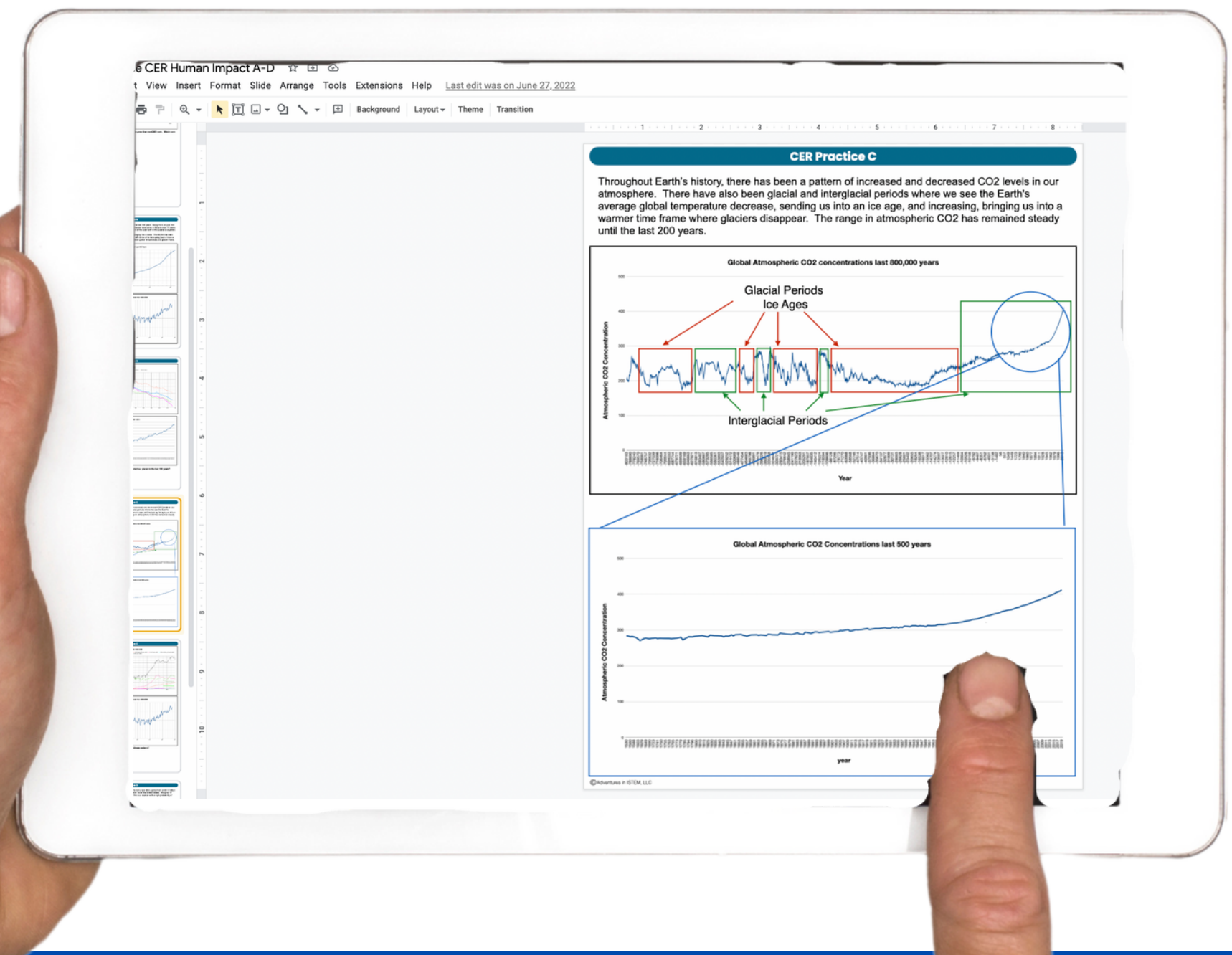
- ✓ Marking the text
- ✓ Analyzing and interpreting data and graphs
- ✓ Organizing their thoughts
- ✓ Answering the question prompt using claim, evidence, reasoning

Resource *includes*

- ✓ 4 science passages with data to interpret
- ✓ Background reading passage about the topic
- ✓ graphic organizer to organize evidence and reasoning
- ✓ 3 graphic organizers to help write their CER
- ✓ Grading Rubric with example answers
- ✓ Sentence starters and student self-assessment checklist

HUMAN IMPACT

CER Practice



HOW TO USE THE RESOURCE IN

3 simple steps

1

Print the PDF version, make copies, and hand out to students

2

Use the digital version by clicking the titles in the RED BOX to make your own copy (found at the end of the PDF)

3

Share the resource with your students using your favorite LMS (Google Classroom, Powerschool (schoolology), Canva...)

Student CER self-assessment

Claim

- ☒ Includes the names of the chemicals in the experiment
- ☒ States if a chemical reaction occurred or not
- ☒ States the answer to the question

Evidence

- ☒ States where the information comes from (according to the data, during the experiment..)
- ☒ Includes observations found in the data table
- ☒ Includes actual numbers when appropriate

Reasoning

- ☒ Explains how the evidence supports the claim
- ☐ States why the evidence is important
- ☒ Includes a concluding sentence

Mechanics

- ☒ No spelling errors
- ☒ No grammar errors
- ☒ Easy to read
- ☒ Includes transition words or sentences

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HUMAN IMPACT

CER Practice

Possible answer for CER Practice A

Question: There is a debate about whether GMO corn is better to grow than non-GMO corn. Which corn type, GMO or non-GMO, is better for the ecosystem?

The Impact of Human Population Background Information

Human population growth

The human population has increased dramatically over the last 500 years. During the 1600s, the global human population was less than 500 million. By the 1800s, the population had doubled to 1 billion. Within 150 years, the population doubled again to over 2 billion by the 1950s. This was when an explosion in the human population occurred, and within 30 years, the global population again doubled to almost 5 billion by 1980. Although there has been a slight decrease in the rate of growth, we are still projected to once again double in population, reaching 8 billion by 1930.

Global Warming

Earth generally has seen a pattern of increasing and decreasing average global temperatures. These global temperatures have followed patterns of increasing and decreasing atmospheric CO₂ levels. The average range of atmospheric CO₂ levels up until the 1800s has been between 200 and 300. Extended periods of higher concentrations of CO₂ levels have been linked to significant ice ages in Earth's history. In the 1800s, the industrial revolution sent vast amounts of CO₂ into our atmosphere. Along with other factors, has caused the atmospheric CO₂ level to surpass 400. Before the 1800s, Earth's highest CO₂ level was around 300. With this increase in CO₂ levels, we also see an increase in global warming. In the last 100 years, the global temperature has increased by about 1.5 degrees Celsius. This increase in temperature has led to a rise in sea levels, melting of glaciers, and more frequent extreme weather events occurring since 1975. It is roughly increasing at a rate of 0.1 degrees Celsius per decade. An increase in temperature might seem small, but it can have a significant impact on the climate.

Climate Change

With an increase in global temperature, glaciers are melting. In the 1980s, glaciers decreased by about 100,000 square kilometers. In the 2000s, they are now decreasing at almost 90,000 square kilometers per year. This melting of glaciers contributes to the rise in sea level.

Oceans play a significant role in regulating the Earth's climate. They absorb heat from the atmosphere and drive the weather. A rise in sea levels are creating a change in the ocean's ecosystem. A rise in carbon absorption is also changing the ocean's acidity. Ocean temperature is causing many coral reefs to die off. Ocean creatures are losing their habitats. Destroying the reefs could have a significant impact on the ecosystem.

GMO (Genetically Modified Organisms)

Genetic engineering is the process of using technology to change the genetic makeup of an organism. A genetically modified organism contains DNA that has been altered using genetic engineering. These alterations are designed to improve the organism. Plants have been genetically altered to grow larger, taller, produce more, and resist pests and herbicides. They have been using a process of selective breeding to create organisms with desired traits. This is a long process, requiring many generations to obtain the outcome they desire. With genetic engineering, the process can be produced in one generation. Some GMO organisms approved for human consumption like corn, soybean, salmon, and tomatoes to name a few.

Check out what teachers just like you have said about products like this:



"Great resource to teach the process of CER. Students were very engaged!" – Christina

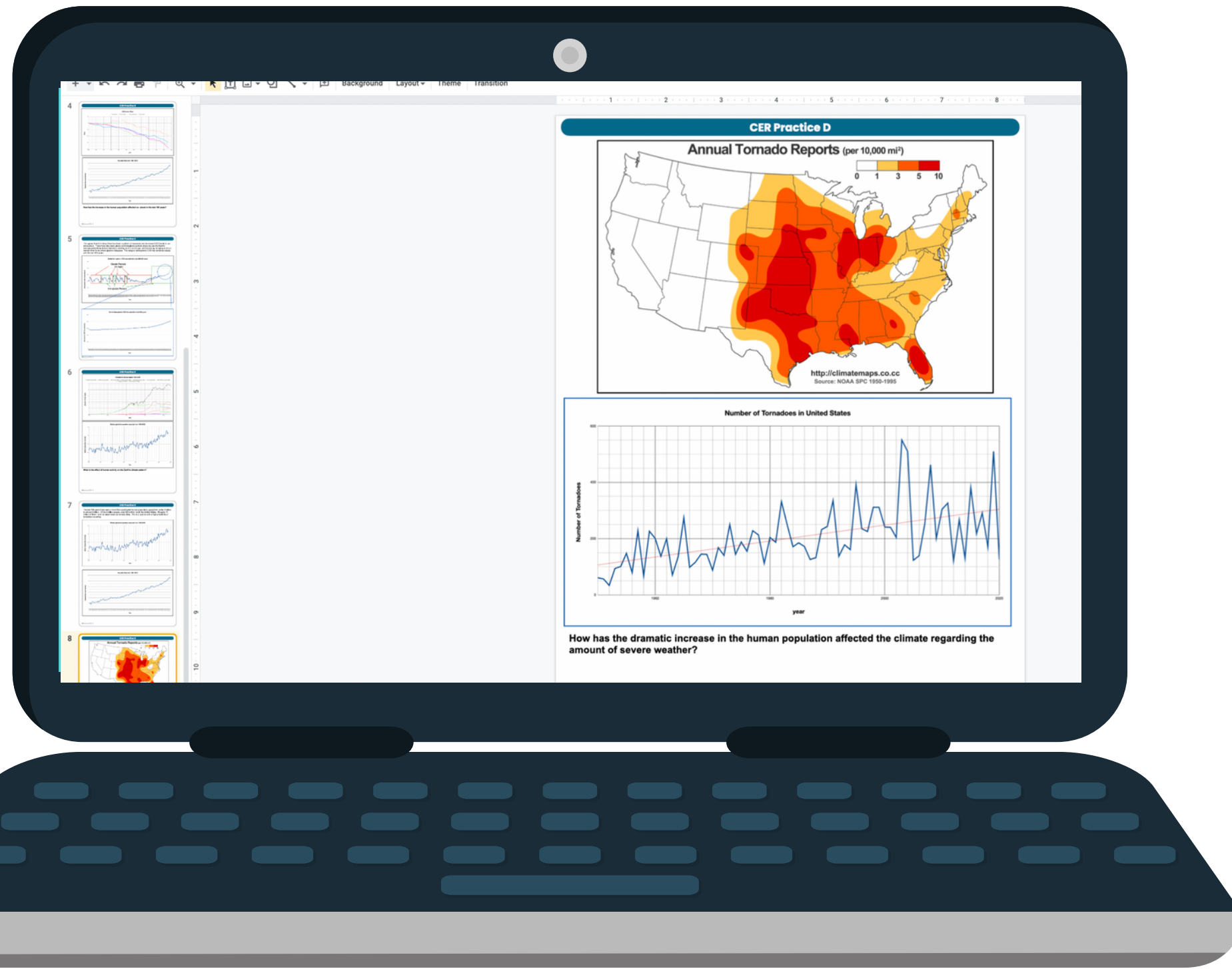


"Great resource for incorporating literacy/comprehension into the science classroom" – Kimberly



"Always looking for CER activities that i can just quickly upload" – Southern Bayou Teaching

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[Leave a review](#)

All About CER



Help students master CER with these simple steps. Watch the video!

CER

Crime Scene Investigation

The Case of Sir Edward Berkshire the third

🔍

Analyze Police Report and Forensic Evidence

Solve the Case using CER

Print and Digital

Get started with CER with this Crime Scene Investigation

CER BUNDLE

Digital and Print

25 experiments to analyze, Writing Support, Grading Rubric

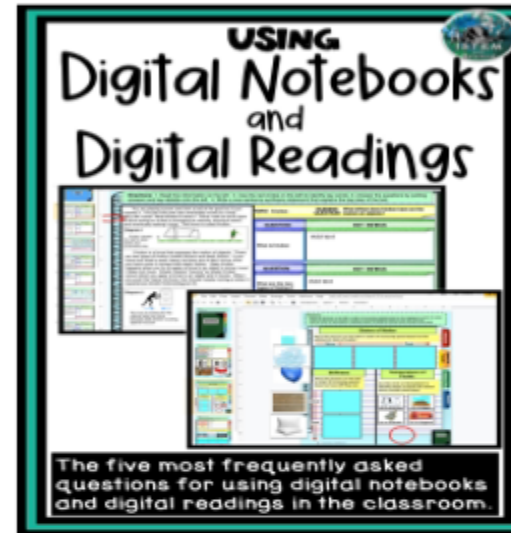
Practice Activities

Save money and grab the bundle

Digital Resources

Using Digital Products?

If you are new to using digital lessons than I recommend to check out my blog post that contains the most frequently asked questions. Click the picture for the link.



I would also recommend checking out my Google Slide videos that demonstrate how to drag and drop pieces, write in the text boxes, add objects, and more. These are short videos that can easily be shared with students and parents. Click the picture for the link



Teaching STEM Through Inquiry

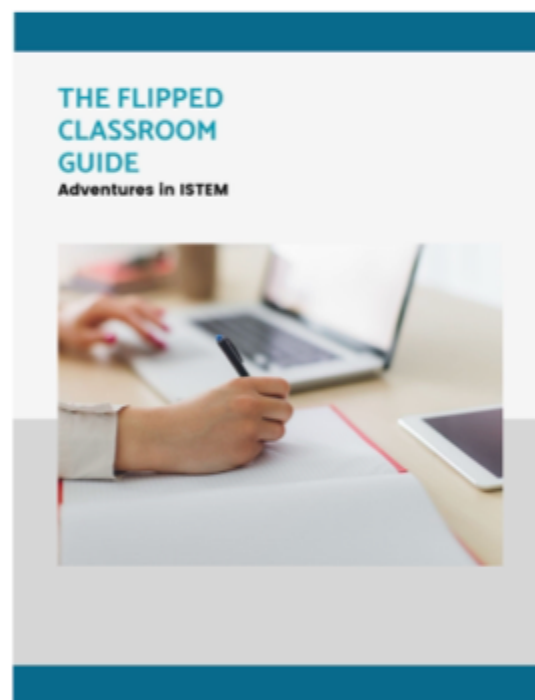
Thank You

Thank You for taking the time to visit my store and downloading one of my products. I hope you find this resource a useful tool for your classroom. I appreciate your support and look forward to your feedback.

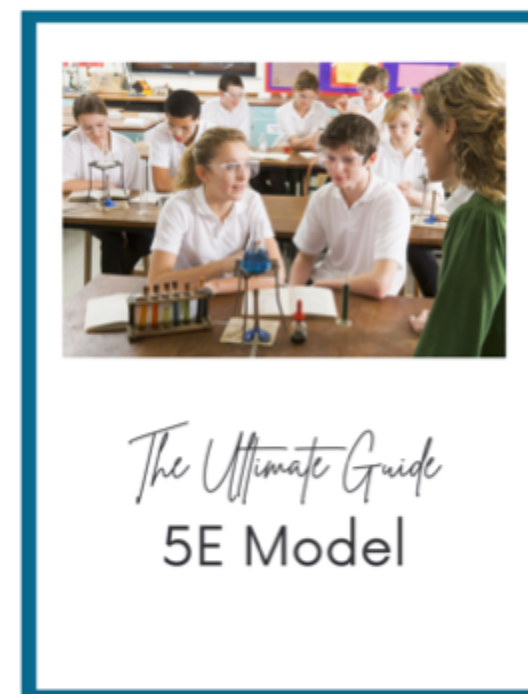
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Cancer affects not only the person but everyone they know. A portion of the proceeds of this product are going to the organization LLS which helps to fund treatments and find a cure.

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Grab the FREE guides



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