



# Teacher Notes


Introduce this great writing tool to your students get them writing scientific arguments! This presentation guides students through the three parts of a scientific argument: claim, evidence, and reasoning. The students follow along with guided notes and practice writing their own scientific argument based on data and a corresponding reading passage. This gives students structure to their writing and supports common core and NGSS!


- Presentation to explain the steps of a scientific argument along with a complete practice example
- Corresponding student handout for notes and practice
- Perfect for science notebooks

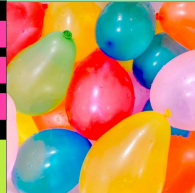
Want more? Try these products to incorporate more Claim, Evidence, and Reasoning into your class!

<b>Scientific Arguments</b> Claim, Evidence, Reasoning <b>Chemical Reactions</b>	
Test It	
Read It	
Explain It	
NGSS Aligned!	

<b>Scientific Arguments</b> Claim, Evidence, Reasoning <b>Heat Transfer</b>	
Test It	
Read It	
Explain It	
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<b>Scientific Arguments</b> Claim, Evidence, Reasoning <b>Sound Waves</b>	
Test It	
Read It	
Explain It	
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<b>Scientific Arguments</b> Claim, Evidence, Reasoning <b>Convection Currents</b>	
Test It	
Read It	
Explain It	
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<b>Scientific Arguments</b> Claim, Evidence, Reasoning <b>Does Air have Mass?</b>	
Test It	
Read It	
Explain It	
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# Parts of a Scientific Argument

Claim – the answer to the question or problem

Evidence – data and observations that support the claim

Reasoning – explains how the evidence supports the claim. Includes the scientific concepts needed to understand the evidence.

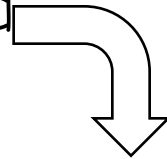
# Let's Practice:

Start with this question:

How does the temperature change inside Earth as you move toward the center of the Earth?

# Let's look at some Data...

Choose the CLAIM is supported by the data table



1. The temperature gets colder as you get deeper into Earth
2. The temperature does not change as you dig deeper into Earth
3. The temperature gets hotter as you dig deeper into Earth

Depth (km)	Temperature (°C)
0	15
1	52
2	88
3	120
4	151
5	179
6	206
7	232
8	257

# Evidence

Use the data table to write 1 – 2 complete sentences to support your claim.

Depth (km)	Temperature (°C)
0	15
1	52
2	88
3	120
4	151
5	179
6	206
7	232
8	257

# Reasoning

Now you need to explain WHY it gets hotter as you move toward the center of the Earth and explain the scientific concepts. Read the paragraph, "Inside Earth" to help with your reasoning.

# Inside Earth Reading

Have you ever wondered if you could dig a hole all the way the other side of the Earth?

Unfortunately there are many reasons that make this impossible. One of these reasons is the extreme heat inside Earth. As you move toward the center of the Earth, the temperature begins to rise. The very center of earth is between 5000 and 7000 degrees Celsius!! Much of this heat is energy leftover from the formation of the Earth. In addition, the decay of radioactive elements adds additional heat.

# Scientific Arguments

## Claim – Evidence - Reasoning

CLAIM	
EVIDENCE	
REASONING	

### PRACTICE:

CLAIM

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EVIDENCE

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REASONING

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# Scientific Arguments

## Claim – Evidence - Reasoning

<b>CLAIM</b>	The answer to the question or problem
<b>EVIDENCE</b>	Data and observations that support the claim
<b>REASONING</b>	Explains how the evidence supports the claim. Includes the scientific concepts needed to understand the evidence.

### PRACTICE:

CLAIM The temperature gets hotter as you dig deeper into Earth

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EVIDENCE At the surface (0km) the temperature is 15 degrees Celsius. As you go down, the temperature increases about 30 degrees for every kilometer you go down

REASONING Earth's interior is extremely hot! 5000 – 7000 degrees Celsius. Much of this heat is leftover from the formation of the Earth. Radioactive elements also add to the heat

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This product comes from my "Quick and CI-Ev-R" series. Each activity is designed for students to practice writing scientific arguments with Claim, Evidence, and Reasoning based on real world data and experiences. Each activity includes a quick hands on activity or demonstration, data collection, and corresponding reading focusing on the scientific concepts presented in the activity.


I love getting feedback! Want to know of my newest products? Follow me at: [Sarah's STEM Stuff](#)

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