All About Skittles

Applying CER to Argument-Driven Inquiry

NAME: **DATE:** **BLOCK:**

INTRODUCTION: Scientists do not just collect data. They ask questions, test ideas, and use evidence to support their explanations. One way scientists do this is through argument-driven inquiry, a process that uses claim, evidence, and reasoning (CER) to investigate scientific questions and communicate conclusions.

QUESTION: Write a clear, testable scientific question that describes the problem you are investigating.	
CLAIM: Write a statement that directly answers the scientific question you tested.	
EVIDENCE: Describe the procedure you used to test your question and present the data you collected. Step #1: Step #2: Step #3: … Your evidence shows your results clearly in the form of a: • Data table • Graph • Or labeled sketch	**REASONING:** Write a paragraph explaining how your evidence supports the claim you made. Be sure to reference specific data and observations. You may use the sentence frames below to help structure your reasoning: "According to the data collected, _____ is _____ because _____." "This is _____ compared to _____ because _____."

In this activity, you will investigate an everyday phenomenon using an unopened bag of Skittles. While Skittles may seem simple, they contain patterns and measurable characteristics such as color distribution, quantity, mass, and probability. Scientists often study ordinary objects to understand larger scientific concepts, and you will do the same by designing and conducting your own investigation. By the end of this investigation, you will not only collect data but also build and defend a scientific explanation using the CER framework, just like real scientists.

MATERIALS RECEIPT:

- Skittles Fun Size Bag (1/group)
- Poster Materials: Yardsticks, Rulers, Chart Paper, Markers
- Investigation Materials: Beakers, Water, Scales, String, Timers, etc.

DIRECTIONS:

1. Do not open the Skittles package until Step 4c.
2. Create a blank Claim–Evidence–Reasoning (CER) chart.
3. In the Question section, write a testable scientific question about the unopened Skittles package. *Be creative and use any available tools or equipment.
4. In the Evidence section,
    a. Write a detailed, step-by-step procedure for how you will test your question.
    b. Create a data table and/or graph that matches your question and procedure.
    c. Open the package and carry out your investigation. Record your data in the table and/or graph.
5. In the Claim section, write a claim that answers your scientific question based on your evidence.
6. In the Reasoning section, write a detailed explanation of how your evidence supports your claim.
7. Prepare to share your CER chart with the class.

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CLAIM:	
EVIDENCE:	**REASONING:**