



All About Skittles: An Intro to Argument-Driven Inquiry

INTRODUCTION:

Argument-driven inquiry is a process used to test scientific questions. It consists of three major components: claim, evidence, and justification. A claim is the answer to a scientific question, evidence is observations and/or data collected while testing a scientific question, and a justification is an explanation describing how and why the evidence answers a scientific question. The following claim-evidence-justification (CEJ) chart can be used to summarize the findings from an argument-driven inquiry.



Question: Write a question that states the problem being tested.	
Claim: Write a statement that answers the question being tested.	
Evidence: Show the data collected for the question being tested - data table, sketch, graph, etc.	Justification: Write a paragraph explaining how the data collected answers the question being tested. "According to the data collected, _____ is _____ because [discuss #s/data points]." "This is _____ compared to _____ because [discuss other #s/data points]."

Like most phenomena in the world, various scientific questions can be tested on an unopened package of Skittles. For example, information can be inquired about characteristics like amount or color. Therefore, although it may seem pretty simple, this Skittles lab consists of four objectives critical to understanding the scientific process of argument-driven inquiry.

OBJECTIVES:

- Construct a scientific question to test
- Develop a procedure to collect evidence
- Write a claim that answers the question being tested
- Justify how the evidence collected supports or rejects the claim

PURPOSE:

To introduce argument-driven inquiry by testing a scientific question about a package of Skittles.

PROCEDURE:

1. DO NOT open the package of Skittles until step 4!
2. Draw a blank claim, evidence, and justification (CEJ) chart.
3. Develop a scientific question to test in the "Question" section.
Get creative - use whatever available equipment possible.
4. Develop a stepwise procedure to test the question in the "Evidence" section. Be detailed!
5. Construct a data table and/or graph that aligns with the question in the "Evidence" section.
6. Open the package to test the question. Record the data collected in the data table and/or graph.
7. Construct a claim that answers the question in the "Claim" section.
8. Construct a justification using the evidence in the "Justification" section.
9. Prepare to present the CEJ chart.

	
MATERIALS RECEIPT PRICES ARE APPROXIMATE	
SKITTLES (4 OZ)	\$1.50
SUGGESTED TEACHER MATERIALS:	
<ul style="list-style-type: none"> • YARDSTICK • RULER • CHART PAPER • SCRATCH PAPER • MARKERS • OPTIONAL: BEAKERS, WATER, SCALE, STRING, TIMER 	
TOTAL	\$1.50