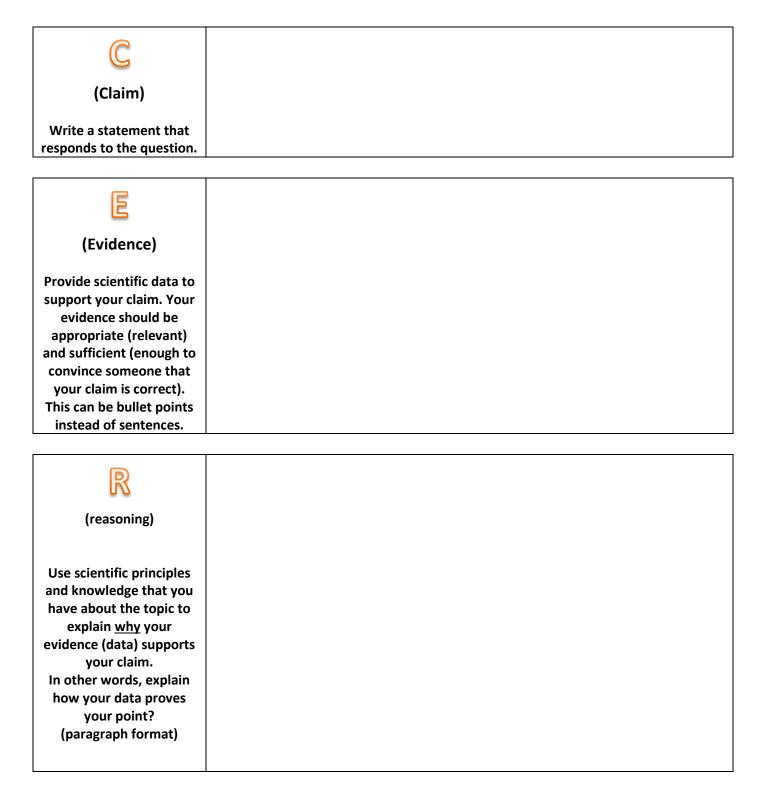
Claim-Evidence-Reasoning (C-E-R)

Student Graphic Organizer

\bigstar Question:

(provided by teacher)



Claim-Evidence-Reasoning

(C-E-R) Rubric

	0	1	2	3
CLAIM A statement that answers the original question/problem.	Does not make a claim, or makes an inaccurate claim.	Makes an accurate but incomplete or vague claim.	Makes an accurate and complete claim.	Χ
EVIDENCE Scientific data that supports the claim. Data needs to be <u>appropriate</u> and <u>sufficient</u> to support the claim.	Does not provide evidence, or only provides inappropriate evidence (evidence that does not support claim).	Provides appropriate but insufficient evidence to support claim. May include some inappropriate evidence.	Provides appropriate and sufficient evidence to support claim.	Χ
REASONING Explain why your evidence supports your claim. This must include scientific principles/knowledge that you have about the topic to show why the data counts as evidence.	Does not provide reasoning or provides reasoning that does not link evidence to claim using scientific principles.	Provides reasoning that links claim to evidence, but does not include scientific principles.	Provides reasoning that links the claim and evidence using scientific principles, but not sufficient.	Provides reasoning that links evidence to claim. Includes appropriate and sufficient scientific principles.

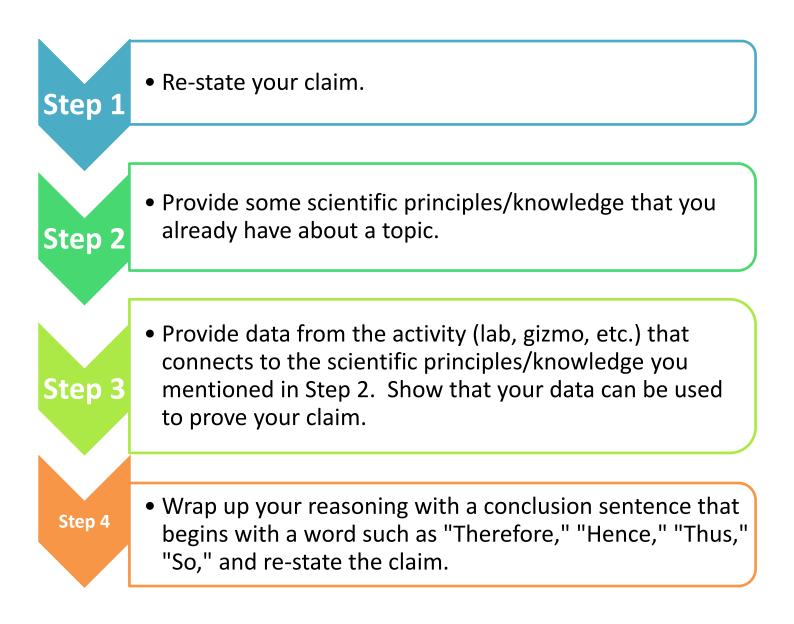
Points Earned	Letter Grade	
7	Α	
6	В	
5	С	
4 or below	F	

Total Possible Points: 7

Total Points Earned: _____

Grade: _____

Follow this path....



Sample C-E-R: Alien

The following are two samples of Claim-Evidence-Reasoning conclusions that were reviewed in class. The C-E-R examples are based on two commercials and one data table that we used to collect data. Feel free to come back and review these samples whenever you need a refresher on how to do a C-E-R.

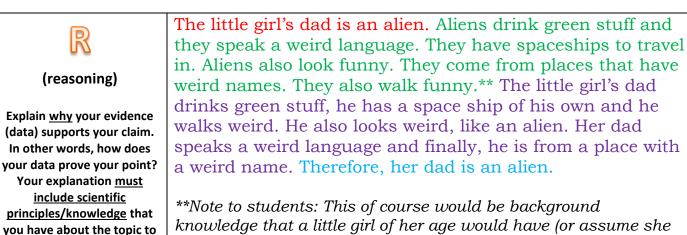
Audi Commercial "Alien" http://www.youtube.com/watch?v=89uJz_us4PM

\bigstar Question: Is the little girl's dad an alien?

prove that your evidence

supports your claim.

C (claim) Write a statement that responds to the question.	Her dad is an alien.
(evidence) Provide scientific data to support your claim. You should only use appropriate (relevant) data and include enough data to convince someone that your claim is correct. This can be bullet points instead of sentences.	 Speaks a weird language Has a spaceship From a place with a weird name Drinks green stuff Looks funny

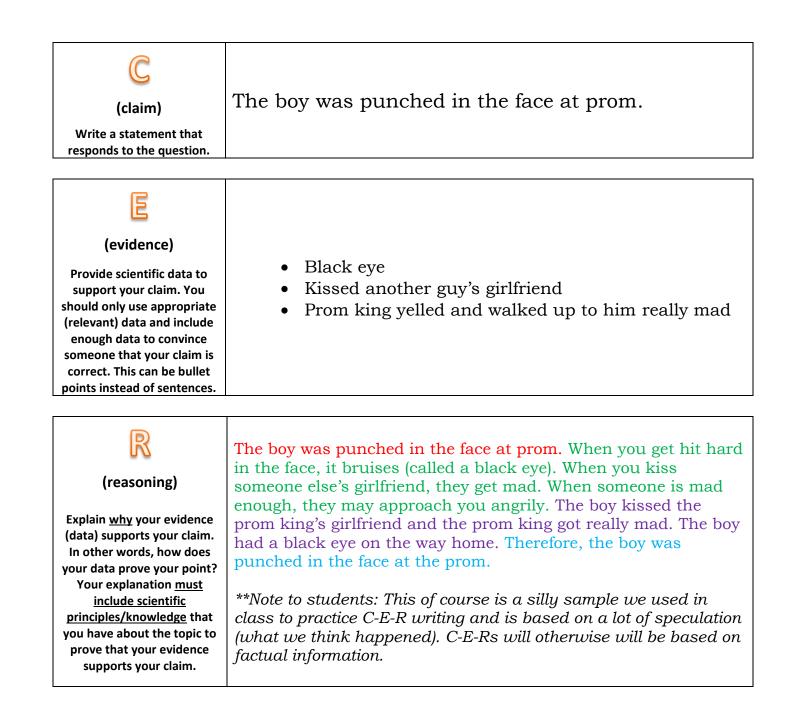


**Note to students: This of course would be background knowledge that a little girl of her age would have (or assume she has) about aliens, for this example. C-E-Rs otherwise will be based on factual information.

Sample C-E-R: Prom

Audi Commercial "Prom" <u>http://www.youtube.com/watch?v=ANhmS6QLd5Q</u>

\bigstar Question: Did the boy get punched in the face at prom?



Sample C-E-R: Identifying Liquids

Examine the following data table:

	Density	Color	Mass	Melting Point
Liquid 1	0.93 g/cm ³	no color	38 g	-98 °C
Liquid 2	0.79 g/cm ³	no color	38 g	26 °C
Liquid 3	13.6 g/cm ³	silver	21 g	-39 °C
Liquid 4	0.93 g/cm ³	no color	16 g	-98 °C

\downarrow Question: _____Are any of the liquids in the data table the same substance?

C (claim) Write a statement that responds to the question.	Liquid 1 and liquid 4 are the same substance.
(evidence) Provide scientific data to support your claim. You should only use appropriate (relevant) data and include enough data to convince someone that your claim is correct. This can be bullet points instead of sentences.	 Have same melting point Have same density Both colorless
(reasoning) (reasoning) Explain <u>why</u> your evidence (data) supports your claim. In other words, how does your data prove your point? Your explanation <u>must</u> <u>include scientific</u> <u>principles/knowledge</u> that	Liquid 1 and liquid 4 are the same substance. In order for two liquids to be the same substances, they must have the same properties. Liquid 1 and liquid 4 both have the same densities, melting points and color. Therefore, liquid 1 and liquid 4 are the same substance.

you have about the topic to prove that your evidence supports your claim.