Read Ch. 2-1, pp. 29-32

1. Read the following sentence starters and descriptions. Identify and label each as "C" for claim, "E" for evidence or "R" for Reasoning.

    a. _____ Based on this evidence, …

    b. _____ Includes one or more scientific principle.

    c. _____ According to the text/video…

    d. _____ This is important because…

    e. _____ The data show…

    f. _____ This shows that…

    g. _____ Information gathered from hands-on investigations, reading, videos, interviews…

    h. _____ The author wrote…

    i. _____ If…, then…

    j. _____ From the reading I know that…

    k. _____ Answers the key question.

    l. _____ The graphic showed…

    m. _____ Therefore,…

    n. _____ Because…

    o. _____ Ties together claim and evidence.

    p. _____ Shows how or why data supports claim.

    q. _____ Consists of one sentence.

    r. _____ All this proves that (restate your claim) because…

    s. _____ Information from a reliable source.

    t. _____ Use key words and ideas provided in the question as you write this.

2. Use the CER framework to make a claim about a topic familiar to you (this can be non-scientific such as who is the greatest athlete in a sport or best guitarist), provide evidence, and explain why and/or how that evidence supports the claim (reasoning). Be as specific as you can.
    CLAIM:

    EVIDENCE:

    REASONING:

3. What is a scientific method?

4. Explain the following terms:
    a) Hypothesis

    b) Experiment

c) Data (what types?)

d) Variables (what types?)

e) Control

f) Conclusion. Explain CER.

g) Theory

h) Law

5. You are asked to study the effect of temperature on the volume of a balloon. The balloon's size increases as it is warmed. What is the independent variable? Dependent variable? What factor is held constant? How would you construct a control?

6. A report in the media states that a specific diet will protect individuals from cancer. However, no data are reported to support this statement. What is missing from the CER model?