Case Details

Case Title:

Graduation Rates

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Grade Level(s):

Middle School

Subject(s):

Physical Science

Summary:

Jereme tells Jessica that his mom read in the AJC that the graduation rate in Georgia in only 58%, but Jessica has heard a different number. Which percentage is correct, and how does Georgia compare to other states? Jereme and Jessica must use their research skills and what they have learned about evaluating websites to determine the facts!

Suggested Citation:

Learning Objectives:

1. Analyze and draw conclusions from charts, tables, and graphs.
2. Create a list of criteria for evaluating websites.
3. Evaluate the validity of different sources.
4. Identify different forms of plagiarism.
5. Distinguish between fact and opinion in a source.
6. Recognize that there is more than one way to interpret different findings.
7. Recognize that there is more than one way to investigate the same problem.

National/State Standards:

Georgia Performance Standards

S8CS3. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations (NSES Content Standard A).
a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers, fractions, decimals, and percents.

S8CS7. Students will question scientific claims and arguments effectively (NSES

Content Standard A).
a. Question claims based on vague attributions (such as   Leading doctors say...   ) or on statements made by people outside the area of their particular expertise.
b. Identify the flaws of reasoning in arguments that are based on poorly designed research (e.g., facts intermingled with opinion, conclusions based on insufficient evidence).
c. Question the value of arguments based on small samples of data, biased samples, or samples for which there was no control.
d. Recognize that there may be more than one way to interpret a given set of findings.

S8CS8. Students will be familiar with the characteristics of scientific knowledge and how it is achieved (NSES Content Standard A). Students will apply the following to scientific concepts:
a. When similar investigations give different results, the scientific challenge is to judge whether the differences are trivial or significant, which often requires further study. Even with similar results, scientists may wait until an investigation has been repeated many times before accepting the results as meaningful.

S8CS9. Students will understand the features of the process of scientific inquiry (NSES Content Standard A). Students will apply the following to inquiry learning practices:
a. Investigations are conducted for different reasons, which include exploring new phenomena, confirming previous results, testing how well a theory predicts, and comparing different theories. Scientific investigations usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations to make sense of collected evidence.