



# Gold Seal Lesson

|                                       |                 |             |  |          |          |               |
|---------------------------------------|-----------------|-------------|--|----------|----------|---------------|
| <b>Author(s):</b><br>Elizabeth Pierce |                 |             | <b>Lesson Title:</b><br><i>Technical Communication-Graphs, Charts and Other Words!</i> |          |          |               |
| <b>Grade Span</b>                     |                 |             | <b>ICLE Application Model</b>  |          |          |               |
| <b>K-4</b>                            | <b>5-8</b><br>X | <b>9-12</b> | <b>A</b>   | <b>B</b> | <b>C</b> | <b>D</b><br>X |

### Instructional Focus:

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| <b>Reading</b> Students read a variety of grade level materials, applying strategies appropriate to various situations.   |
| <b>Writing</b> Students write for a variety of purposes and audiences with sophistication and complexity appropriate to the grade level.  |
| <b>Listening</b> Students listen for a variety of purposes appropriate to the grade level.  |
| <b>Speaking</b> Students speak for a variety of purposes and audiences with sophistication and complexity appropriate to the grade level.   |
| <b>Measurement</b> Students use a variety of tools and techniques of measurement in a problem-solving situation. Students communicate the reasoning used in solving these problems.                           |
| <b>Statistics and Probability</b> Students use statistics and probability to analyze given situations and the results of experiments. Students communicate the reasoning used in arriving at a conclusion.    |
| <b>Problem-Solving and Mathematical Reasoning</b> Students apply a variety of problem-solving strategies to investigate and solve problems from across the curriculum as well as from practical applications. |

### Performance Task

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| <p>The student researches information about a controversial current event or issue (see suggested topic choices in Technical Communications Chart 1). In addition to the information researched, the student creates five closed statements designed around the event or issue. The five statements can be written down one side of a piece of a paper while Agree, Somewhat Agree, Somewhat Disagree, or Disagree can be written across the top.</p> <p>The student surveys 20 students using the five statements that address the controversial current event or issue. Cooperating students either respond with “Agree, Somewhat Agree, Somewhat Disagree, or Disagree.” The student puts a tally mark beside the response that reflects the awareness and/or opinions of the surveyed students’ answers. Depending on the grade level, these tally marks for each question can either be turned into a bar graph, line graph, double bar graph or a pie chart <i>by fractions</i> (5 out of 20 students Strongly Agree that...) or <i>by percentages</i> (25% of students Strong Agree that...).</p> <p>At least two graphs/charts illustrating the results of the survey are incorporated into the research paper. The research paper refers to the graphs/charts by their subtitles and without describing them in detail. The graphs/charts add additional insight into how the local populations’ opinion coincides or differs from the national or international opinion. The research paper is not to persuade but to inform. The research paper is computer generated. Citations are at the discretion of the teacher.</p> |
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## ICLE Essential Skills

Apply in writing the rules and conventions of grammar, usage, punctuation, paragraphing and spelling. ela1

Gather information from a variety of sources, including electronic sources, and summarize, analyze, and evaluate its use for a report. ela3

Identify, collect and/or select pertinent information while reading. ela5

Draft a report that engages an audience and is concise, clear, well-organized, accurate, and informative. ela12

Discriminate important ideas from unimportant ideas while reading. ela15

Understand and use graphs, charts, and visuals to enhance informational writing and oral presentations. ela29

Perform **operations with signed** (positive and negative) **numbers**, including decimals, ratios, percents, and fractions. m1

Understand the best procedures for statistical **data collection, organization, and display** including making estimates and predictions and drawing inferences. m5

Analyze the **truth value of simple sentences** by stating whether a simple objective statement (closed sentence) is true or false, or whether a statement containing pronouns or variables (open sentence) becomes true or false upon replacement of those pronouns or variables. m12

Use **direct proof and indirect proof** sequencing techniques to reach a conclusion. Direct proof uses the Laws of Reasoning to create an orderly arrangement of steps leading to a conclusion. Indirect proof uses an initial assumption that the conclusion is false, and through a series of logically sound reasoning steps the statement may be proved otherwise. m32

## Scoring Guide:

Score each of the following characteristics on a scale of 4 to 0, where 4 = surpasses expectations; 3 = high quality performance; 2 = satisfactory quality performance; 1 = minimum quality performance; 0 = does not meet expectations.

### CHARACTERISTICS – CRITERIA SCORE

- **Researches Event or Issue**
  - Makes proper use of technology using at least two internet sites]
  - Uses other various sources for research
  - Event or issue is of general knowledge to general public
  - Event or issue has two point of view\_\_\_\_\_
- **Creates Five Statements for Survey**
  - Statements are designed around event or issue
  - Statements are declarative, not questions
  - Statements are closed sentences which add to truth value
  - Statements make logical sense in light of the event or issue\_\_\_\_\_
- **Surveys Students**
  - Surveys twenty student
  - Is polite and courteous while surveying
  - Listens to answers carefully
  - Does not guide surveyed students to answers
  - Does not reveal others' answers to surveyed students
  - Ensures all answers fall within Agree, Somewhat Agree, Somewhat Disagree or Disagree spectrum\_\_\_\_\_
- **Calculates Tally Marks**
  - Converts tally marks into percentages
  - Converts tally marks into fractions
  - Collects, organizes and displays tally marks for best statistical inference
  - Infers conclusion through Direct Proof\_\_\_\_\_
- **Converts Percentages or Fractions Into Graphs/Charts**
  - Understands how to incorporate graphs/charts into research paper
  - Divides the graphs/charts into correct percentages or fractions
  - Has a subtitle that identifies the graphs/charts\_\_\_\_\_
- **Writes Research Paper**
  - Incorporates graphs/charts logically
  - Refers briefly and without detail to the graphs/charts by subtitle name
  - Paper contains two graphs, two charts or a combination of each
  - Applies the rules and conventions of grammar, usage, punctuation, paragraphing, spelling
  - Presents information in well-organized fashion that will be clear to the target audience
  - Uses editing and revising skills to improve effectiveness and accuracy
  - Does not define a position on a topic or write persuasively to persuade a specific audience\_\_\_\_\_

**Scoring Guide continued:**

- **Technology**
- Makes proper use of technology\_\_\_\_\_
- **Task Management**
- Manages time wisely
- Cooperates with others as needed\_\_\_\_\_

**Keywords**

| <b>English Language Arts</b>   | <b>Mathematics</b>  | <b>Science</b>       |
|--|---|----------------------|
| <b>Reading</b><br>Comprehension<br>Independent Reading<br>Research<br>Integration    | <b>Algebra</b><br>Computation<br>Factoring<br>Math in Daily Life  | <b>Earth Science</b> |
| <b>Writing</b><br>Composition<br>Technical Writing<br>Integration<br>Word Processing | <b>Geometry</b>   | <b>Life Science</b>  |
| <b>Communications</b><br>Illustration<br>Interviewing<br>Listening<br>Visuals        | <b>Statistics</b><br>Charts<br>Data Analysis<br>Data Collection<br>Data Display<br>Graphs<br>Statistics in Daily Life<br>Surveys<br>Tables<br>Integration | <b>Chemistry</b>     |
| <b>Literature</b><br>Non-Fiction<br>Point-of-View<br>Primary Sources                 | <b>Calculus</b>   | <b>Physics</b>       |
| <b>Other</b>   | <b>Trigonometry</b>   | <b>Other</b>         |
|  | <b>Other</b>  |                      |

# Topic Choices

## **Social Issues**

Grades 5-8

- School violence (Can anything be done to make schools safe?)
- Smoking (Is it dangerous to be around other people who smoke (second-hand smoke) or not?)
- Girls on boys' football teams (Is too dangerous or should girls be allowed to join?)
- A longer school day (Do students need to go to school longer and during the summer?)
- Improving education (Should parents or teachers be in charge?)
- Field trips (Who should decide where to go for a field trip – students, teachers, or parents?)
- School lunches (Can anything be done to make them better, or not?)
- Bicycles (Should a license be required to ride a bicycle on the street?)
- Bedtime curfew (Should young adults be allowed to stay up as late as they want as long as they go to school, or not?)
- Water guns at school (Threat to safety or no bid deal?)
- Praying before school starts (Should it be allowed or not?)
- Recycling (Should everyone be required to do it or not?)
- Importance of college (Should it be a personal choice or required?)
- AIDS (Still spreading fast or almost cured?)
- Divorce (Does divorce between parents mean the child's world will be worse or not?)
- Cheating (If students share homework, is that considered cheating or not?)
- Gangs (Are they a danger to neighborhoods or no bid deal?)
- Building in the country (When a coyote ends up in your newly built country back yard, whose fault is it?)
- Violence on TV (Are young adults influenced by what they see on TV or not?)
- Rap and Hip Hop (Are Rappers all gangsters or are they just pretending to sell records?)
- Being thin (Can someone be too thin, or not?)

## **Business and Government Issues**

- Pollution (Should the government force companies to follow rules?)
- Advertising (Are people influenced by TV commercials or not?)
- President's salary (Should the President make the most money in the United States, or not?)

## **Entertainment Issues**

- Sports role models (Should teens look up to them or not?)
- Tabloid journalism (Should papers be allowed to publish lies?)
- Salaries of athletes (Are they overpaid or worth the money?)