Gold Seal Lesson

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

Instructional Focus:

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

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.

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 *by fractions* (5 out of 20 students Strongly Agree that…) or *by percentages* (25% of students Strong Agree that…).

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.

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.

CHARACTERTICS – 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

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

Topic Choices

Social Issues

Grades 9-12

School violence (Can anything be done to make schools safe?)
Teen pregnancy (Is it a serious societal problem or is it not a big deal?)
Smoking (Is it dangerous or a- personal choice?)
Curfews in local towns (Are they effective or unfair?)
High school dropouts (Should it be a person's own choice or not?)
Improving education (Should parents or teachers be in charge?)
Literacy (Should we have higher standards for reading or not?)
Driving and laws for teens (Are teens responsible enough to drive or not?)
Gun control (Should it be personal or government choice?)
Teens as volunteers (Is it necessary or should it be a choice?)
Role of religion for teens (Does it influence lives or not?)
Conservation/ecology (Should government regulate businesses or not?)
Importance of college (Should it be a personal choice or required?)
Eating disorders (Are eating disorders caused by celebrities or not?)
AIDS (Still spreading fast or almost cured?)
Athlete steroid use (Is it a big problem is its usage rare?)
Cruelty to animals (Is animal testing the right thing to do?)
Gangs (Are they a danger to neighborhoods or no bid deal?)
Urban sprawl (When a coyote ends up in your newly built country back yard, is it your fault or its?)
Gay teens (Are gays and lesbians born or made?)

Business and Government Issues

Pollution (Should the government force companies to follow rules?)
Using products and services from other countries (Should it be a personal choice even though there are government sanctions?)
The power of advertising (Are teens influenced or do they make their own choices?)
Strikes and their effects (Do they have a positive or negative effect on the country?)
Stock market investment (Is it risky or safe?)
Gays in the military (Is it a security risk or not?)
Politicians' lives (How much do we need to know?)
Term limits for elected officials (Should politicians be allowed life terms?)
Antitrust laws (ex. Microsoft and Windows98) (Should companies be allowed to control a market?)
Health care (Should the government provide or is it everyone for him/her self?)
Social Security (Should it be locked away in a safe place or invested in the stock market?)

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?)