



International Center  
for Leadership  
in Education



**Gold Seal Lesson:**

Copernicus Education Gateway

|                               |            |                  |                                               |          |          |               |
|-------------------------------|------------|------------------|-----------------------------------------------|----------|----------|---------------|
| <b>Author(s): Doris Quick</b> |            |                  | <b>Lesson Title: Forest Fires in the West</b> |          |          |               |
| <b>Grade Span</b>             |            |                  | <b>ICLE Application Model</b>                 |          |          |               |
| <b>K-4</b>                    | <b>5-8</b> | <b>9-12</b><br>X | <b>A</b>                                      | <b>B</b> | <b>C</b> | <b>D</b><br>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.

**Number Operation and Concepts**

Students use number, number sense, and number relationships in a problem-solving situation. Students communicate the reasoning used in solving these problems.

**Performance Task**

Firefighters must be re-assigned to meet needs of growing forest fires in Western states. Working in groups, students will read and interpret the attached chart, graph and map to determine the nature of the problem. Students should calculate the apportionment of fire fighters based on acres burning. Next, determine the re-assignment of the firefighters. Then draft a memo report which outlines the problem and its solution to appropriate state agencies, explaining how many firefighters the state will gain or lose in reapportionment.

**ICLE Essential Skills**

Summarize, synthesize and organize information while reading. E24

Understand and produce a variety of informative formats such as business letters, memos, reports, news articles, brochures, proposals and critiques. E22

Present information in well-organized fashion that will be clear to the target audience. E11

Perform **operations with signed** (positive and negative) **numbers**, including decimals, ratios, percents, and fractions. M1

**Scoring Guide:**

- 4** The student demonstrates active participation in and cooperation with group, brainstorms ideas for problem solving, and contributes to the strategic planning and analysis. Student actively engages in mathematical calculations and manipulation of personnel based on the percentages. Memo report is written in standard business format. Information is well-organized and contains the necessary data and instructions. Sentences are concise and complete. Grammar and mechanics are 100 percent accurate.
- 3** The student participates in group process and calculations. Memo report is concise and accurate, meeting business standards for 100 percent accuracy. However, the organization is incomplete or information is missing.
- 2** The student participates minimally in group process and calculations. The memo report lacks either organization or does not meet business standards for accuracy in sentence structure or mechanics.
- 1** The student is not engaged with the group and offers little or no help in solving the problem. The memo report is poorly organized and lacks many of the points needed for clear understanding and direction. Format is non-standard and mechanics, grammar and punctuation are weak.

**Keywords**

| <b>English Language Arts</b>                                                                                        | <b>Mathematics</b>                                                         | <b>Science</b>       |
|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----------------------|
| <b>Reading</b><br><i>Construct Meaning</i>                                                                          | <b>Algebra</b><br><i>Problem Solving</i><br><i>Percent</i><br><i>Ratio</i> | <b>Earth Science</b> |
| <b>Writing</b><br><i>Technical Writing</i><br><i>Grammar</i><br><i>Usage</i><br><i>Mechanics</i><br><i>Spelling</i> | <b>Geometry</b>                                                            | <b>Life Science</b>  |
| <b>Communications</b>                                                                                               | <b>Statistics</b>                                                          | <b>Chemistry</b>     |
| <b>Literature</b>                                                                                                   | <b>Calculus</b>                                                            | <b>Physics</b>       |
| <b>Other</b>                                                                                                        | <b>Trigonometry</b>                                                        | <b>Other</b>         |
|                                                                                                                     | <b>Other</b>                                                               |                      |

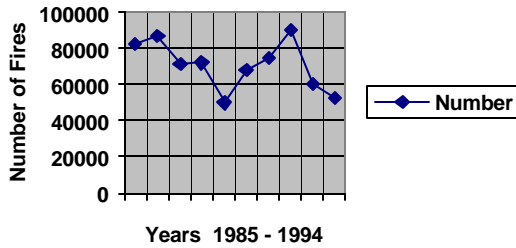
Picture, Chart, or Graph file name(s):

## Wildfires in the West

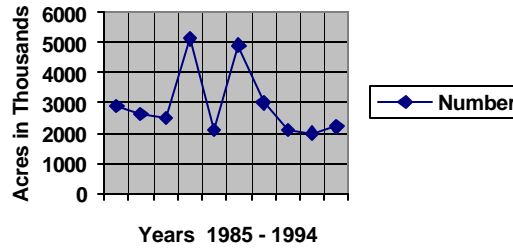
Table and Charts

| State      | Number of Acres Involved | Number of Firefighters |
|------------|--------------------------|------------------------|
| California | 25,892                   | 1,355                  |
| Idaho      | 74,444                   | 5,052                  |
| Montana    | 625                      | 83                     |
| Nevada     | 1000                     | 57                     |
| Oregon     | 10,515                   | 6,617                  |
| Washington | 184,438                  | 5,410                  |

NUMBER OF FIRES



ACRES DAMAGED



Information from USA TODAY, copyright 1994  
Sources: National Emergency Fire Center  
National Oceanic and Atmospheric Administration