

## SAMPLE ASSESSMENT WITH ANNOTATIONS

### GRAPHS AND CHARTS

- ▼ *Describes the tasks the student is to perform to demonstrate achievement of Learning Standard 11A at stage D (fourth grade). Bulleted items describe the performance criteria using the rubric's dimensions.*

#### Performance Standard 11A.D

Construct charts and graphs to display data accordingly:

- *Knowledge*: Know ways to make different kinds of charts and graphs (e.g., line, bar, pie) to display data, including the use of a computer
- *Application*: Analyze and explain data from three charts and graphs.
- *Communication*: Produce 3 charts and/or graphs and written explanations that are well-organized and well-detailed and present them to the class; express all ideas in a way that provide evidence of knowledge and application processes.

#### Procedures

- ▼ *The first item includes the Learning Standard (in italics) and the performance descriptors(bullets), which indicate the kinds of learning that should take place before attempting the assessment.*

1. *In order to know and apply the concepts, principles and processes of scientific inquiry(11A)*, students should experience sufficient learning experiences to develop the following:
  - Construct charts and visualizations to display data.
  - Use a computer or other technology to produce simple graphs and charts.
  - Explain and report data using various kinds of graphs and charts.

- ▼ *Items 2 through the second-to-last item are the directions for administering the assessment.*

2. Have students review and discuss the assessment task and how the rubric will be used to evaluate their work.
3. Select data from a recently completed science unit and ask students to do the following:
  - Display the data using various kinds of graphs and charts (e.g., line, bar, pie); use computer technology if available.
  - Analyze the data and explain in writing what the data mean.
4. Ask each student to report and explain the data in a brief presentation, using his/her graphs and charts as visual aids.

- ▼ *The last item under "procedures" describes how to evaluate the student work. The italicized categories provide the specifics of the scoring rubric.*

5. Evaluate each student's work using the Science Rubric as follows and add the scores to determine the performance level:
- *Knowledge*: Display of the data on the charts and/or graphs was complete and accurate.
  - *Application*: Analysis and explanation of the data were thorough and accurate.
  - *Communication*: Presentation and charts/graphs were well-executed and well-organized; all ideas were expressed clearly and provided complete evidence of the knowledge and application processes.

### Examples of Student Work

***Student work, when available, follows the assessment.***

### Time Requirements

***▼ Approximate time to complete assessment only. Instructional time not included.***

- 25 to 30 minutes

### Resources

***▼ Materials to gather before assessment.***

- Graph paper or other means of displaying charts/graphs
- Computers and technology, if available
- Science Rubric