

## Alternative Assessment—Unit 4.2

### Graphing Changes in Diversity

#### Grade 8 Science

##### Overview

Students graph data to show how the biodiversity of organisms changed. They provide possible explanations for the change.

##### Content Standards

GLE 0807.5.5 Describe the importance of maintaining the earth's biodiversity.

GLE 0807.Inq.5 Communicate scientific understanding using descriptions, explanations, and models.

Learning Outcome: Describe the importance of maintaining the earth's biodiversity.

##### Materials

none

##### Directions

The number of organisms of three species, A, B, and C, counted each year for five years is shown in the table below. Graph the data. Interpret the data by describing trends in the data for each species. Provide at least one hypothesis to explain why the changes are occurring.

**Number of Organisms of Three Species Counted in a Pond Ecosystem**

Species	Number Counted Each Year					
	2005	2006	2007	2008	2009	2010
A	10	20	45	60	80	100
B	60	50	45	40	30	20
C	30	30	30	30	30	30

##### Assessment Rubric

Criteria	Advanced	Proficient	Below standard
<b>Graph</b>	Line graph displays text and numerical data accurately, well designed, neat, no errors	Line graph accurately represents most of the data, errors may be present but interpretation is still possible	Inappropriate type of graph or graph seriously distorts the data making interpretation almost impossible
<b>Interpretation and Hypothesis</b>	Correctly identifies trends for all three species and the interpretation of data supports one or more hypotheses	Identifies general trends and uses the data to support one hypothesis	Trends not clearly described; hypothesis not supported or only partly supported by data or not stated at all