

## **SOLVING AN ARCHAEOLOGICAL MYSTERY**

### ***CONTENT STANDARDS:***

- ❑ Students will be able to produce and interpret appropriate graphical representations of data.
- ❑ Students will be able to develop inferences, predictions, and arguments that are based on data.
- ❑ Students will be able to communicate results of data analysis

### ***PROCESS STANDARDS:***

- ❑ Students will be able to communicate in oral and written for

### ***TASK:***

On digs in southeastern Montana and north central Wyoming, archaeologists discovered the remains of two Native American settlements. They unearthed a number of arrowheads at both sites. The tables you will be given list the length, width, and neck width for each arrowhead that was found (in mm). You will take the role of an archaeologist. You must estimate the time period during which each site was inhabited. To help you, you will use arrowhead data from four other settlement sites in which a time period was previously established. (This data will be given to you.) You must use your data analysis techniques to analyze the new data and categorize it into a time period. You need to write a summary, mathematically justifying your decision, to the Chicago Museum of Science and Industry, which is planning on displaying the arrowheads. People visiting must know when these arrowheads were founded. This will give us more insight on the past. Your justification must demonstrate data analysis techniques learned in class.

### ***CRITERIA:***

- ❑ You must use an analysis tool for each of the 7 sites.
- ❑ You must categorize the two sites into the time frames they were discovered.
- ❑ You must write a written justification for why you chose the time frames you chose.
- ❑ Your written justification must include your 7 analysis tools.

***RUBRIC:***

<b>Category</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Analysis tools</b>	One or two analysis tools are shown correctly	Three to four analysis tools are shown correctly	Five to six analysis tools are shown correctly	Seven analysis tools are shown correctly
<b>Written Report</b>	Report is difficult to follow.	Some of the report is clear and easy to follow	Most of the report is clear and easy to follow	Report is clear and easy to follow
<b>Justification</b>	Justification does not reflect data analysis.	Some of justification reflects data analysis	Most of justification reflects data analysis	Justification clearly reflects data analysis
<b>Answer</b>	Incorrect answer			Correct answer

**TOTAL \_\_\_\_\_/16**