

Jay Curriculum: Unit Cover Page

Unit title: Data and Graphs

Grade Level: 3

Content Area(s): Math

Date Created:

Designed By:

**Year 1
Map & Template Development**

- Map/Matrix Completed
- Material & Resources Listed
- Draft Design Template Completed
- Initial Draft Template Document

**Year 2
Piloting**

- Develop:
- Performance Tasks
- Other Assessments
- Scoring Rubrics
- Piloted

**Year 3
Review & Complete Assessment**

- Performance Tasks Development
- Other Assessments Completed
- Scoring Rubrics Completed
- Reviewed/Revised Templates

Year 4

- Full Implementation
- Benchmarks Established

Standard(s)/Performance Indicators:

C 1, 2
G 1
I 1
K 1
B 3

Unit: Data and Graphs

Brief Summary of Unit/Topic

Summary:

Students will develop the skills to read, construct, and analyze graphs and solve problems based on their interpretations of graphs and solve problems based on their interpretations of graphs related to various favorite topics of elementary-age students. Students develop their problem-solving skills by learning to choose appropriate operations, collect and analyze data, and look for a pattern.

Stage #1: Identify Desired Results

Essential Question/s:

General understanding/s (What is worth being familiar with?)

- Collect and organize data
- Analyze and discover patterns (data)
- Make inferences, draw conclusions and make predictions
- Use communication to make important connections with graphic and symbolic ideas
- Exploration of discrete mathematics (Is there a solution? How many solutions? Which is the best solution?)

Students will know:

A graph is a pictorial representation of the collected data. Different types of graphs highlight different types of information.

Students will be able to:

- Collect and organize data through the use of pictograph bar graphs and line graphs.
- Students will be able to analyze and discover patterns to make inferences, draw conclusion, make predictions, to create their own graph.
- Students will explain chosen graph to show solution(s)

Enduring Understanding/s:

- Read and interpret pictographs, bar graphs, and line graphs
- Will solve problems by making decisions for collecting and analyzing data

Stage #2: Evidence

What evidence will students have to provide in order to demonstrate that they have developed the skills, knowledge and understanding to successfully complete this unit?

Performance Tasks/Products/other assessments Performance tasks should have a <u>scoring guide</u> .	<i>Performance Indicators</i> for this task.* Example: ELA: C- 1,2,3 Science: B- 3,5,7 SS His: H- 2	<u>Modalities</u> K =Kinesthetic O =oral V =visual W =written	Are <u>examples</u> available to students? Y, N, or N/A	Component of Local Assessment System? Y or N (See aligned scoring guide .)
Tables to record data – tally marks				
Construct graphs – bar, picto, line				
Listing of Activities for Graphs – pg 77 Marilyn Burns (Math Solutions) (also pgs 116-124)				
Scholastic News – graphs to interpret and complete				
Computer Technology – software to create graphs using already collected data				
Individual, Small Group, Whole Class oral presentations				
QUIZZES, TESTS, PROMPTS:				
Alternative chapter assessment from Addison Wesley Sourcebook				
OTHER:				
Math journal				
Oral presentations				
Checklists				
Teacher Observations				
Rubric				
Work Samples				
Interview				
STUDENT SELF ASSESSMENT:				
Portfolios				
Written responses				

*Abbreviate: English Language Arts= ELA, Career Preparation=CP, Modern and Classical Languages=MCL, Social Studies=SS, Visual and Performing Arts=VPA

Stage #3: Plan learning experiences & instruction

What teaching & learning experiences may equip students to develop & demonstrate the targeted understanding(s)? (activities/plans):

- Create bar graphs, line graphs or picto-graphs by using first name, birthdays, integrating seeds, favorite flowers
- Problem of the day
- Each student creates a line graph using their Mad Minute
- Human tallies – Lesson 1-7 TM 26 B
- Team Project – A Hand Print Graph – p. 8
- Graph software in computer lab
- Classroom Graph – how many seconds does it take to chew a skittle. Plot on overhead transparency.

REFERENCES:

Literature Connection: 20,000 Baseball Cards Under the Sea by Buller
Uganda Near Kabalega Falls by Lewin