Grade 1 Math Unit 3-Data

UNIT OVERVIEW

In grade 1, instructional focus should focus on four critical areas.   This unit is connected to Focus #3, **Developing understanding of linear measurement and measuring lengths as iterating length units.** (See Connections for further explanation)

There is 1 cluster within this unit:
a. Represent and interpret data * (See Connections for further explanation)

STANDARDS

CC_Common Core State Standards - Mathematics (2010) - Grade 1
Domain 1.MD Measurement and Data
Cluster Statement: Represent and interpret data.
Standard 1.MD.4 Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

CONTENT ELABORATIONS

1.MD.4	**1.MD.4** calls for students to create graphs and tally charts using data relevant to their lives (e.g. categorical data--favorite ice cream, eye color, pets, etc.) Graphs may be constructed by groups of students as well as by individual students. Then, they work with the data by organizing, representing and interpreting data. Students should have experiences posing a question with 3 possible responses and then work with the data that they collect. Counting objects should be reinforced when collecting, representing, and interpreting data. Students describe the object graphs and tally charts they create. They should also ask and answer questions based on these charts or graphs that reinforce other mathematics concepts such as sorting and comparing. The data chosen or questions asked give students opportunities to reinforce their understanding of place value, identifying ten more and ten less, relating counting to addition and subtraction and using comparative language and symbols. **MP.2, MP.3, MP.4, MP.5, MP.6** should be emphasized.

UNIT VOCABULARY

tally chart	data	picture graph
survey	graph	bar graph

BIG IDEAS

ENDURING UNDERSTANDINGS

ESSENTIALS QUESTIONS
Choose a few questions based on the needs of your students

 • Important information can be found in representations of data such as tallies, tables, and charts.
• Tables and charts can help make solving problems easier.
• Questions can be answered by collecting and interpreting data.

• How do I make and read graphs?

CONNECTIONS

In Critical Focus Area #3 students develop an understanding of the meaning and processes of measurement, including underlying concepts such as iterating (the mental activity of building up the length of an object with equal-sized units) and the transitivity principle for indirect measurement. (Students should apply the principle of transitivity of measurement to make indirect comparisons, but they need not use this technical term.)

Standards for Mathematical Practice (SMP)

MP.1 Make sense of problems and persevere in solving them

MP.2 Reason abstractly and quantitatively

MP.3 Construct viable arguments and critique the reasoning of others

MP.4 Model with mathematics

MP.5 Use appropriate tools strategically

MP.6 Attend to precision

MP.7 Look for and make use of structure (Deductive reasoning)

MP.8 Look for and express regularity in repeated reasoning (Inductive Reasoning)

REPRESENT AND INTERPRET DATA

	CONTENT	SKILLS
1.MD.4	Organize, represent and interpret data with up to three-categories.	Organize, represent and interpret data with up to three-categories. 1. Recognize different methods to organize data. 2. Organize data with up to three categories. 3. Recognize different methods to represent data. 4. Represent data with up to three categories. 5. Interpret data representation by comparing the categories. 6. Interpret data representation by answering questions about the data such as how many more or how many less. 7. Interpret data representation by asking questions about the data.

UNIT RESOURCES

Common Core Model Curriculum

McGraw-Hill, **My Math** Chapter 7