2 Math Unit 11: Data Analysis

Content Area: **Mathematics**
Course(s):
Time Period: **Marking Period 4**
Length: **11 days**
Status: **Published**

Unit Overview

Understanding Data

This unit allows students to build on the Grade 1 knowledge of different ways to organize and represent data and build on this information to gather, organize, and analyze data throughout this unit. Students will build from this understanding to represent the data shown in a tally chart in different ways. New representations will be introduced, including picture graphs, bar graphs, and line plots. Students will use the representations to analyze and make conclusions about the data.

- Representation and Tools: Students begin by creating and analyzing picture graphs. Students are introduced to the parts of a picture graph, including the key. They use simple pictures to represent data and answer questions about the data using the picture graphs. Students then build off their understanding of picture graphs to create bar graphs. They again use the bar graphs to answer questions. the final representation introduced is line plots. Line plots are used to display measurement data. Students collect measurement data. They use the line plots to analyze data.
- Measurement: Students continue to build skills by measuring common objects to the nearest inch, foot, or meter. They then take these measurements and organize them using a line plot. The plots are analyzed, with students answering questions relating to the longest, shortest, tallest, or smallest measurements.

What Students Are Learning

- Students draw picture graphs, bar graphs, and line plots using tally charts.
- Students interpret information shown in picture graphs, bar graphs, and line plots.
- Students use different strategies for collecting measurement data.

Number Routines

- Build Fluency
- Decompose It
- About How Much?
- Find the Missing Values
- Notice & Wonder

Standards

2.DL.B.3	Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.
2.DL.B.4	Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with

up to four categories. Solve simple put together, take-apart, and compare problems using information presented in a bar graph.

Materials

Core Materials:

Reveal Math

11.1 Understand Picture Graphs

11.2 Understand Bar Graphs

11.3 Solve Problems Using Bar Graphs

11.4 Collect Measurement Data

11.5 Understand Line Plots

11.6 Show Data on a Line Plot

Supplemental Materials:

- ST Math
- Happy Numbers
- 3 Act Lessons
- Building Fact Fluency Kit
- Brainingcamp Manipulatives
- Nearpod Lessons
- Brainpop Resources
- Online Resources

Technology

DA	Data & Analysis
8.1.2.DA.1	Collect and present data, including climate change data, in various visual formats.
8.1.2.DA.3	Identify and describe patterns in data visualizations.
8.1.2.DA.4	Make predictions based on data using charts or graphs.
8.2.2.ED.2	Collaborate to solve a simple problem, or to illustrate how to build a product using the design process.
8.2.2.ED.3	Select and use appropriate tools and materials to build a product using the design process.

Assessment

Formative Assessment

- Unit Readiness Diagnostics
- Lesson Checks
- Exit Tickets
- Teacher Observation

Summative Assessment

- Unit Assessment Performance Task
- Benchmark Tests
- Alternative Assessments: Performance Tasks & Projects

Accommodations & Modifications

Special Education

Differentiated Instruction			
Accommodate Based on Students' Individual Needs: Strategies			
Time/General • Extra time for assigned tasks • Adjust length of assignment • Timeline with due dates for reports and projects • Communication system between home and school • Provide lecture notes/outline	**Processing** • Extra response time • Have students verbalize steps • Repeat, clarify, or reword directions • Mini-breaks between tasks • Provide a warning for transitions • Reading partners	**Comprehension** • Precise step-by-step directions • Short manageable tasks • Brief and concrete directions • Provide immediate feedback • Small group instruction • Emphasize multi-sensory learning	**Recall** • Teacher-made checklist • Use visual graphic organizers • Reference resources to promote independence • Visual and verbal reminders • Graphic organizers
Assistive Technology • Computer/whiteboard	**Tests/Quizzes/Grading** • Extended time	**Behavior/Attention** • Consistent	**Organization** • Individual

• Tape recorder • Spell-checker • Audio-taped books	• Study guides • Focused/chunked tests • Read directions aloud	daily structured routine • Simple and clear classroom rules • Frequent feedback	daily planner • Display a written agenda • Note-taking assistance • Color code materials

504

- In class/pull out support with special ed teacher Additional time during intervention time
- Preferred seating
- Questions read aloud
- Extended time for completing tasks Graphic organizers
- Vocabulary support Mnemonic devices
- Songs/videos to reinforce concepts Limit number of questions
- Scribe Manipulatives Calculators Reteach pages Leveled homework
- Lesson intervention activities
- Math Diagnosis & Intervention System Another look homework video
- Practice buddy

ELL

- Translation device/dictionary
- In class/pull out support with ESL teacher
- Preferred seating
- Questions read aloud
- Extended time for completing tasks
- Graphic organizers
- Vocabulary support
- Mnemonic devices
- Songs/videos to reinforce concepts
- Manipulatives
- Math Diagnosis & Intervention System

At-risk of Failure

- Additional time during intervention time
- Questions read aloud
- Graphic organizers
- Vocabulary support
- Mnemonic devices
- Songs/videos to reinforce concepts
- Manipulatives

- Calculators
- Reteach pages
- Leveled homework
- Lesson intervention activities
- Math Diagnosis & Intervention System
- Another look homework video
- Practice buddy

Gifted & Talented

- Independent projects
- Enrichment pages
- Online games
- Leveled Homework
- Extension Activities
- Today's Challenge

Interdisciplinary Connections

ELA:

RI.2.10. Read and comprehend informational texts, including history/social studies, science, and technical texts, at grade level text complexity proficiently with scaffolding as needed.

Science:

K-2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

Climate Change:

Climate Change Example: Students may draw a bar graph having single-unit scale to represent a data set about a climate change related issue in their school, such as food waste, recycling, reusing and/or reducing the consumption of goods.

Career Readiness, Life Literacies & Key Skills

9.1.2.CAP.1	Make a list of different types of jobs and describe the skills associated with each job.
9.1.2.CR.1	Recognize ways to volunteer in the classroom, school and community.

9.1.2.CAP.2	Explain why employers are willing to pay individuals to work.
9.4.2.CT	Critical Thinking and Problem-solving
9.1.2. FI.1	Differentiate the various forms of money and how they are used (e.g., coins, bills, checks, debit and credit cards).

Career Ready Practices

-
    - **Stem in Action :**
    - **Stem Career: Meteorologist Hugo talks about her aspirations to be an meteorologist.**
    - **Hugo interprets rainfall data: Hugo explains how he uses data analysis to interpret rainfall data.**

- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP12. Work productively in teams while using cultural global competence.