

1 Math Unit 06: Represent and Interpret Data

Content Area: **Mathematics**
Course(s):
Time Period: **February**
Length: **3 Weeks**
Status: **Published**

Unit Overview

A rigorous curriculum emphasizes conceptual understanding, procedural skill and fluency, and applications.

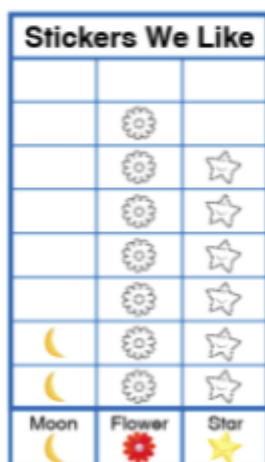
CONCEPTUAL UNDERSTANDING

- **Organize Data** In Lesson 6-1, students use tally marks and tally charts to organize data.
- **Collect and Represent Data** Students work with sets of collected data and are also given the opportunity to collect and represent their own data. Students begin to understand that there are multiple ways to represent data.
- **Retrieve and Analyze Data** Students learn how to retrieve data from a given tally chart or picture graph. Then they develop concepts of data analysis by determining which category has the most or fewest data values and by solving “put together,” “take apart,” and “compare” word problems. Students also generate their own questions about the data.

Ms. Olson asked her students a survey question.
She put tally marks in the tally chart to show the data.



The data in the tally chart was used to make this picture graph.



Which sticker is the least favorite?

PROCEDURAL SKILL AND FLUENCY

There are no fluency expectations in Topic 6.

- **Represent and Interpret Data** Students apply their understanding of the concepts of data collection and analysis to represent and interpret data, including data they collect themselves. They organize data into as many as three categories. They analyze data by solving word problems involving data shown in tally charts and picture graphs.

APPLICATIONS

- **Addition and Subtraction Situations** Throughout Topic 6, students continue to solve “put together,” “take apart,” and “compare” word problems involving real-world data that have been represented in tally charts and picture graphs. Some of these problems involve more than one step to solve.

Phil asks friends to choose their favorite snack.
The tally chart shows the results.



How many of Phil's friends answered the survey? Write an equation to show your thinking.

Standards

MA.1.MD.C.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.
MA.1.OA.A.1	Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
MA.1.OA.A.2	Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
MA.1.OA.C.5	Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).

Materials

Core Materials:

- [EnVision Math](#)
- 6.1-Organize Data into Three Categories
- 6.2-Collect and Represent Data
- 6.3-Interpret Data
- 6.4-Continue to Interpret Data
- 6.5-Make Sense and Perservere

Supplemental Materials:

- [ST Math](#)
- [Happy Numbers](#)
- [3 Act Lessons](#)
- [Building Fact Fluency Kit](#)
- [Brainingcamp Manipulatives](#)
- [Nearpod Lessons](#)
- [Brainpop Resources](#)
- [Math Diagnosis and Intervention System](#)
- [Online Resources](#)

Technology

Algorithms & Programming

- 8.1.2.AP.1: Model daily processes by creating and following algorithms to complete tasks.
- 8.1.2.AP.4: Break down a task into a sequence of steps.

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.

Assessment

Formative Assessment

- Teacher Observation
- Daily Quick Checks
- Quizzes
- Exit Tickets

Summative Assessment

- Topic Tests
- Benchmark Tests
- Alternative Assessments: Performance Tasks & Projects

Accommodations & Modifications

Special Education

- Follow IEP Plan which may contain some of the following examples...
- 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

- 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

Topic 1 Math and Science Project - Using different presentations tools, students will collect different types of paper. Talk about the uses of paper. Tell how strong each type of paper is. Tell how the paper feels. Tell if the paper can soak up water.

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.

21st Century Life Literacies & Key Skills

Critical Thinking and Problem Solving

- 9.4.2.CT.2: Identify possible approaches and resources to execute a plan (e.g., 1.2.2.CR1b, 8.2.2.ED.3).
- 9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive).

Technology Literacy

- 9.4.2.TL.3: Enter information into a spreadsheet and sort the information.
- 9.4.2.TL.4: Navigate a virtual space to build context and describe the visual content.
- 9.4.2.TL.7: Describe the benefits of collaborating with others to complete digital tasks or develop digital artifacts

Career Ready Practices

- 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.