

Eureka Math Parent Guide

A GUIDE TO SUPPORT PARENTS AS THEY WORK WITH THEIR STUDENTS IN MATH.

GRADE 3
MODULE 6

GRADE FOCUS

Third Grade mathematics is about (1) developing understanding of multiplication and division and strategies for multiplication and division within 100; (2) developing understanding of fractions, especially unit fractions (fractions with numerator 1); (3) developing understanding of the structure of rectangular arrays and of area; and (4) describing and analyzing two-dimensional shapes.

- Module 1: Properties of Multiplication and Division and Solving Problems with Units of 2—5 and 10
- Module 2: Place Value and Problem Solving with Units of Measure
- Module 3: Multiplication and Division with Units of 0, 1, 6–9, and Multiples of 10
- Module 4: Multiplication and Area
- Module 5: Fractions as Numbers on the Number Line
- » **Module 6: Collecting and Displaying Data**
- Module 7: Geometry and Measurement Word Problems

LET'S CHECK IT OUT!

MODULE 6 FOCUS

In Module 6, we build on Grade 2 concepts about data, graphing, and line plots. We focus on generating and analyzing different types of data. By the end of the module, students are working with a mixture of scaled picture graphs, bar graphs, and line plots to problem solve using categorical and measurement data.

MORE SPECIFICALLY, CHILDREN WILL LEARN HOW TO:

- Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories.
- Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch.
- Show the data by making a line plot, where the horizontal scale is marked off in appropriate units.

TOPIC OVERVIEW

Topics are the lessons within a module that help children master the skills above. Here are the lessons that will guide your child through Module 6:

- Topic A: Generate and Analyze Categorical Data
- Topic B: Generate and Analyze Measurement Data

WORDS TO KNOW

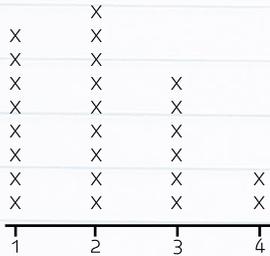
- **Axis:** vertical or horizontal scale in a graph
- **Bar graph:** graph generated from categorical data with bars to represent a quantity
- **Fraction:** numerical quantity that is not a whole number, e.g., $1/3$
- **Frequency:** most common measurement on a line plot
- **Line plot:** display of measurement data on a horizontal line
- **Measurement data:** e.g., length measurements of a collection of pencils
- **Picture graph:** graph generated from categorical data with graphics to represent a quantity
- **Scaled graphs:** bar or picture graph in which the scale uses units with a value greater than 1
- **Survey:** collecting data by asking a question and recording responses

SAMPLE PROBLEMS

SAMPLE 1

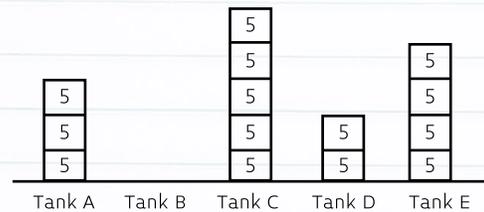
Students will learn when a line plot or a bar graph is a more appropriate way to display data.

Number of Children in Third-Grade Families



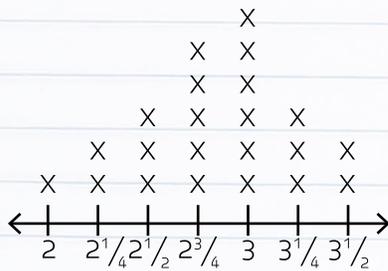
Number of Children ($x=1$ Child)
Line Plot

Number of Fish in Sal's Pet Store



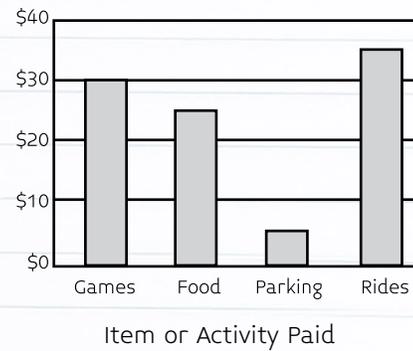
A vertical tape diagram, similar to a bar graph.

Crayfish Lengths from Mr. Nye's Class



Inches ($x=1$ Crayfish)

Money Spent at the Fair

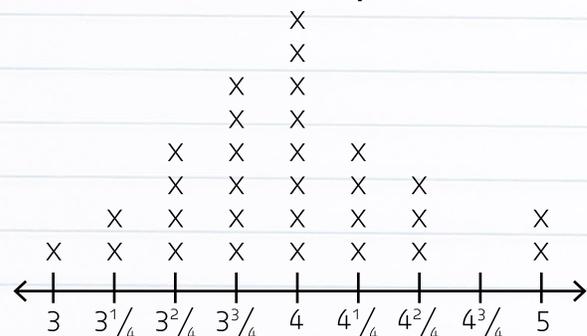


SAMPLE 2

Using the line plot to the right, students answer various questions:

- How many caterpillars did the class measure?
How do you know?
- Cara says that there are more caterpillars that are $3 \frac{3}{4}$ centimeters long than caterpillars that are $3 \frac{2}{4}$ and $4 \frac{1}{4}$ centimeters long combined. Is she correct?

Lengths of Caterpillars



Length in Centimeters ($x=1$ caterpillar)

HOW YOU CAN HELP AT HOME

- Ask your student to help interpret the data when you see simple graphs and charts in books, newspapers, or product packaging.
- Continue to practice and encourage measurement around the house, especially with inches, and parts of an inch.