Unit 3c-Represent And Interpret Data

Content Area: **Math**
Course(s): **Math 5**
Time Period: **Marking Period 3**
Length: **MP3 Topic 10 10-1 to 10-4**
Status: **Published**

Essential Questions

- How can line plots be used to represent data and answer questions?

Big Ideas

- **Make and Interpret Line Plots:** Students will learn how to read line plots and interpret the data. This will lay the foundation for the topic including representing data in a line plot.
- **Use Data Represented in a Line Plot to Solve Problems:** Students will use what they learn about making and interpreting line plots to solve problems. Students will also use what they have learned about fractions and line plots to critique the reasoning of others.
- **Use Operations with Fractions in Data Problems:** Students will use prior knowledge of adding and subtracting fractions, as well as multiplying and dividing fractions. Students solve problems involving line plots that require using operations with fractions and mixed numbers.

Enduring Understandings

Number and Operations—Fractions

5.NF.A.2[M] Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. For example, recognize an incorrect result ⅖ + ½ = 3/7, by observing that 3/7 < ½.

5.NF.B.6 Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problems

Data Literacy

5.DL.A.1 Understand how different visualizations can highlight different aspects of data; Ask questions and interpret data visualizations to describe and analyze patterns.

5.DL.A.2 Develop strategies to collect, organize and represent data of various types and from various sources.

Communicate results digitally through a data visual (e.g. chart, storyboard, video presentation).

5.DL.A.3 Collect and clean data to be analyzable (e.g. make sure each entry is formatted correctly, deal with missing or incomplete data).

5.DL.A.4 Using appropriate visualizations (i.e. double line plot), analyze data across samples.

5.DL.B [M] Represent and interpret data

5.DL.B.5 [M] Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Use operations on fractions for this grade to solve problems involving information presented in line plots. For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.

Mathematical Practices Focus

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