

Mini-Map for M.EE.6.SP.5

Subject: Mathematics Statistics and Probability (SP) Grade: 6

Learning Outcome

DLM Essential Element	Grade-Level Standard
M.EE.6.SP.5 Summarize data distributions shown in graphs or tables.	M.6.SP.5 Summarize numerical data sets in relation to their context, such as by: Reporting the number of observations. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.

Linkage Level Descriptions

Initial Precursor	Distal Precursor	Proximal Precursor	Target	Successor
Arrange objects in a	Communicate	Analyze data	Summarize data	Recognize appropriate
specific order (e.g.,	understanding that	distribution to	distribution by	measures of center,
smallest to largest).	distribution of data can	recognize outliers,	describing the overall	such as mean or
Group objects by some	be described by the	peaks, or symmetric	shape of data in terms	median, by analyzing
attribute value (e.g.,	overall shape of the	distribution. Recognize	of outliers, peaks, and	the overall shape of the
shape, size, texture,	distribution. Recognize	data values	symmetric distribution.	data distribution. For
numerical pattern).	that in a line plot, "x" is	substantially larger or		example, use the mean
	used to represent the	smaller than the other		to describe the center if
	data values, and labels	values as outliers.		the data distribution is
	are used to represent x-	Recognize peaks as data		symmetric, and use

Initial Precursor	Distal Precursor	Proximal Precursor	Target	Successor
	axis, y-axis, and the title	values that most		median to describe the
	of the graph.	frequently occur.		center if the data
		Recognize symmetric		distribution is not
		distribution as		symmetric.
		distributions where the		
		left- and right-hand		
		sides of the		
		distributions are		
		roughly equal.		

Initial Precursor and Distal Precursor Linkage Level Relationships to the Target

How is the Initial Precursor related to the Target? In order to summarize data, students begin by learning to recognize what is the same and different between familiar items; color, shape, quantity, size, texture, and pattern. Educators should take care to use attribute words while defining and demonstrating their meaning. While students do not need to say these words, they do need to learn the meanings. Students will also begin to group two or more items in the same set based on an attribute (e.g., two tigers, bumpy balls and bumpy gravel, red spoons). As the students group two or more items, the educator will demonstrate the representation in a bar graph or line plot and encourage students to actively participate in its creation.

How is the Distal Precursor related to the Target? Students can actively participate in the creation of graphs and line plots by placing representations, x's, or dots for each response to the research question. When the graph or line plot is complete, the educator will encourage students to use their core vocabulary to describe the overall shape of the data and will also demonstrate the description (e.g., up, not up, same).

Instructional Resources

Released Testlets

See the Guide to Practice Activities and Released Testlets.

Using Untested (UN) Nodes

See the document Using Mini-Maps to Plan Instruction.



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