Mini-Map for M.EE.8.SP.4

Subject: Mathematics
Statistics and Probability (SP)
Grade: 8

Learning Outcome

DLM Essential Element	Grade-Level Standard
M.EE.8.SP.4 Construct a graph or table from given categorical data, and compare data categorized in the graph or table.	**M.8.SP.4** Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table. Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. Use relative frequencies calculated for rows or columns to describe possible association between the two variables.

Linkage Level Descriptions

Initial Precursor	Distal Precursor	Proximal Precursor	Target	Successor
Arrange objects in a specific order or by following a specific rule (e.g., arranging three pencils by increasing length). Group like items by attributes and distinguish between like items based on simple characteristics such as shape, size, texture, and numerical pattern.	Recognize the structure of bar graphs, picture graphs, line plots, and tally charts, such as the title and labels for the *x*- and *y*-axes. Understand that bars are used to display data on bar graphs. Understand that pictures, symbols, or geometric figures are used to display data on picture graphs. Understand that on a line plot, "x" is used to	Answer questions by lifting information from a bar graph, picture graph, line plot, and tally chart and understand the information represented on the graph (e.g., in the graph representing students' favorite ice cream, how many students like strawberry ice cream? How many students like chocolate ice cream?).	Represent data on bar graphs, picture graphs, line plots, and tally charts. Use bar graphs, picture graphs, line plots, and tally charts to answer questions (e.g., how many, most, least) that require interpretation and integration of information presented on the graph.	Draw inferences or make predictions by interpreting information presented on a bar graph, picture graph, line plot, or tally chart (e.g., on the bar graph representing the number of pizzas required for a certain number of people, predict the number of pizzas needed for 20 people).

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Initial Precursor	Distal Precursor	Proximal Precursor	Target	Successor
	represent the data values, and tally marks are used to represent data on a tally chart.			

Initial Precursor and Distal Precursor Linkage Level Relationships to the Target

How is the Initial Precursor related to the Target?

In order to represent and use data, students begin by learning to recognize what is the same and different between familiar items such as color, shape, quantity, size, texture, and pattern. Educators should take care to use attribute words (e.g., circle/square, more/less/same, rough/smooth, red, green, red, green) 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. 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?

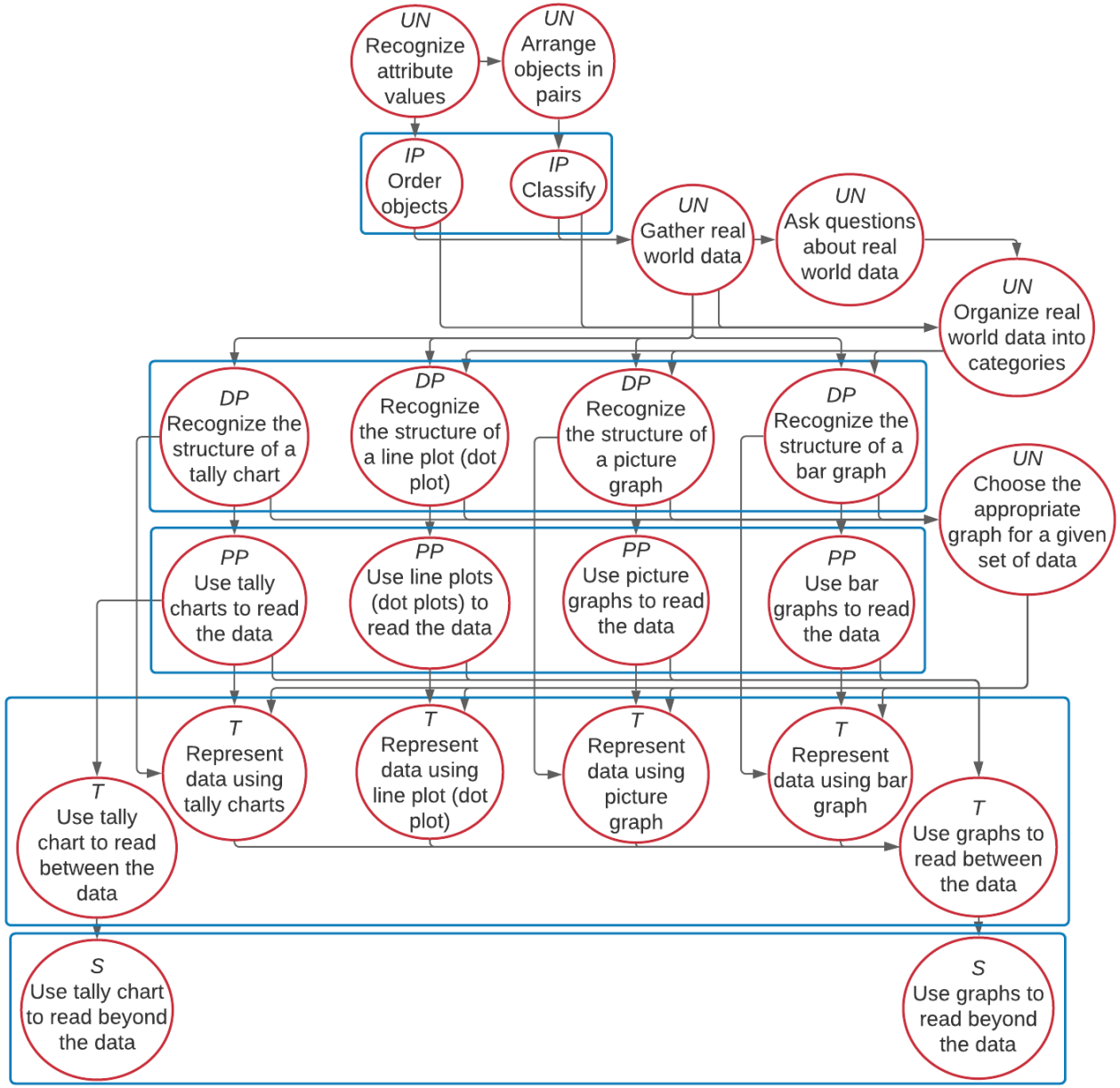
Students actively participate in the creation of bar graphs, picture graphs, line plots, and tally charts by placing representations, x's, or dots for each response to the research question.

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.

[Link to Text-Only Map]

M.EE.8.SP.4 Construct a graph or table from given categorical data, and compare data categorized in the graph or table.



Map Key	
IP	Initial Precursor
DP	Distal Precursor
PP	Proximal Precursor
T	Target
S	Successor
UN	Untested

Boxes indicate tested nodes