Mini-Map for M.EE.7.SP.5-7

Subject: Mathematics
Statistics and Probability (SP)
Grade: 7

Learning Outcome

DLM Essential Element	Grade-Level Standard
M.EE.7.SP.5-7 Describe the probability of events occurring as possible or impossible.	**M.7.SP.5** Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around 1/2 indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event. **M.7.SP.6** Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. **M.7.SP.7** Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy.

Linkage Level Descriptions

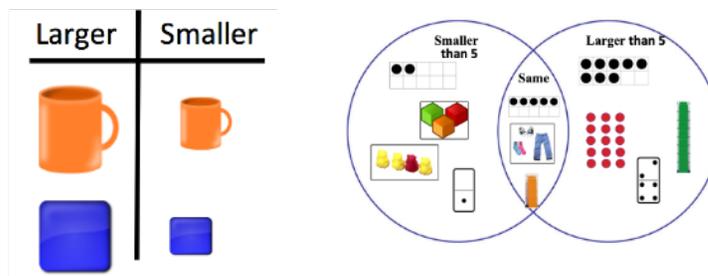| Initial Precursor	Distal Precursor	Proximal Precursor	Target	Successor
Recognize attributes or characteristics of an object, such as color, orientation, length, width, and weight.	Group together objects by attribute values such as shape or size (e.g., group together a square, a rectangle, and a rhombus, as they all have four sides).	Recognize possible outcomes of an event (e.g., drawing a red marble from a bag containing red and green marbles).	Categorize events as possible or impossible (e.g., drawing a red marble from a bag containing red and yellow marbles as possible and drawing a blue marble from a group of red and yellow marbles as an impossible event).	Communicate understanding that probability of an event is the likelihood of an event occurring (e.g., given the likelihood of drawing a blue crayon out of a box containing 5 blue crayons and 6 yellow crayons is 5/11, the student describes 5/11 as the probability).

Initial Precursor and Distal Precursor Linkage Level Relationships to the Target

How is the Initial Precursor related to the Target?

In order to describe the probability of an event, students begin by learning about attributes, numbers, and measurement. Educators draw student attention to new objects or stimuli, label and describe them (e.g., "this is a circle; it won't have sides," "this egg carton has 12 spaces; it is likely that 12 eggs will fit into those spaces," "this book is a small book, and it's impossible for it to get bigger") and students observe, feel, or otherwise interact with the objects.

How is the Distal Precursor related to the Target?

Proportional understanding is key when working toward describing probabilities. Educators provide many opportunities for students to classify (group) items based on their size (e.g., compare two or more items and determine which is larger or smaller), amount (e.g., numbers larger or smaller than a given number), and distance between numbers (e.g., skip counting by 2, 5, or 10).

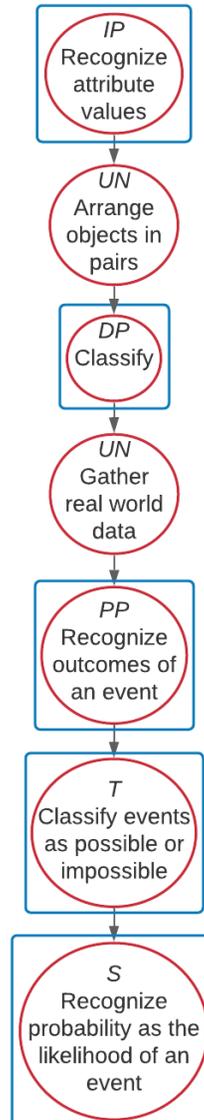Use a number line or counters to model how you got your answer.

2, 4, 6, ?

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.

M.EE.7.SP.5-7 Describe the probability of events occurring as possible or impossible.

Map Key

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

Boxes indicate tested nodes