Beanbag Toss

Learning Goals

Recommended Grades	• K – 1
Possible Math Tools	• Tally representation • Addition
Possible Objectives	• K – 1 students will ○ Quantify real-world values ○ List values in a table ○ Draw conclusions by comparing values
Real-World Context	Students divide into groups, and each group designs a beanbag toss game. The game must be fair enough to attract players, and challenging enough to keep them invested. Students use the resources at their disposal to design a carnival game, and use data to set an appropriate level of challenge by changing player accuracy. Students may brainstorm one of many different modeling problems: • How big should the target be? • How far should a player stand from the target?
Vocabulary	• Accuracy • Challenge • Score • Quality • Values
Cross-Curricular Connections	This lesson could be inspired by a field trip or icebreaking game; for example, students might create a carnival stand as a crafts project, and then consider how to improve their game.

Relevant Common Core Standards:

K – 1:

CCSS.MATH.CONTENT.K.CC.C.7

Compare two numbers between 1 and 10 presented as written numerals.

Task: Determine who had a higher score in the bean bag toss.

CCSS.MATH.CONTENT.K.OA.A.2

Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.

Task: Sum up the score of a bean bag toss game.

CCSS.MATH.CONTENT.1.MD.A.2

Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. *Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.*

Task: Measure the distance from thrower to target.

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CCSS.MATH.CONTENT.1.MD.C.4

Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

Task: Compare the accuracy of contestants standing at different distances from the target.