

Twister Probability Game

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Topic: Probability and Statistics

Curriculum Competencies: - Demonstrate and apply mental math strategies - Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving

Grade Levels: 4 - 7 (8+ with extension to write associated algebraic expression that describes the pattern made)

Resource: ourselves

Description:

The Twister Probability Game

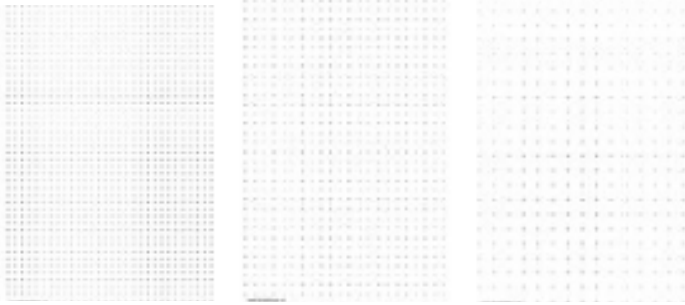
This game lets students decide the path to take to get from Start to Finish on a set of Twister Mats. The goal is to find the quickest and longest paths to move from Start to Finish.

To set up the game: Using two Twister mats, lie them on the floor beside each other. Make sure you tape them together and the floor for safety of players.



Students start off the Mat at the Start sign. Using the Colour Wheel spin the wheel to find out which coloured circle the students will take their first step on. Number of steps are determined by the roll of one Dice. After the first step, the student has a choice as to which direction they will take (at that point colour does not matter). Discuss with the students the choices they made to go from Start to Finish. Why did the student believe that the path chosen was the shortest or longest possible? Would the student's choice of path change if they started on a different colour? Why?

In the Classroom, an alternative to the Twister Mat is to provide the students with dotted Graph Paper (see different sizes below) and have the students travel from one corner to the opposite diagonal corner of the page.



By using coloured pencils the students can demonstrate different paths taken across the paper. To create a bigger challenge, the teacher may want to impose specific rules; examples are:

1. No path may loop back on itself.
2. No path may cross a row more than once.
3. No path may cross a column more than 2 times.
4. A path must use at least 1 dot from every row and every column on the page.