

Probability and ChartGizmo¹

Grade Level: 7-8

Overview	The purpose of this lesson is for students to pair up to learn probability, how it affects dice rolling, and then to apply computer skills by putting the data into a graph using the Web 2.0 Application ChartGizmo.																								
Objectives	Students will be able to team up and create probability outcomes using dice rolling, record data, and represent the data visually in a graph using ChartGizmo with 100% accuracy.																								
Standards	<ul style="list-style-type: none">Analyze, interpret, and display data in appropriate bar, line, and circle graphs and stem-and-leaf plots and justify the choice of display. – 7.6.1Make predictions from statistical data. – 7.6.2																								
Materials	<ul style="list-style-type: none">Computer with Internet Access2 Dice (per student group)Pen/PencilPaper <div data-bbox="964 877 1417 1222"><table border="1"><caption>Number Rolled When Two Dice Are Rolled 50 Times</caption><thead><tr><th>Number Rolled</th><th>Times Rolled</th></tr></thead><tbody><tr><td>2</td><td>2</td></tr><tr><td>3</td><td>3</td></tr><tr><td>4</td><td>4</td></tr><tr><td>5</td><td>5</td></tr><tr><td>6</td><td>7</td></tr><tr><td>7</td><td>8</td></tr><tr><td>8</td><td>7</td></tr><tr><td>9</td><td>5</td></tr><tr><td>10</td><td>4</td></tr><tr><td>11</td><td>3</td></tr><tr><td>12</td><td>2</td></tr></tbody></table></div> <p data-bbox="1081 1241 1268 1276">Sample Chart²</p>	Number Rolled	Times Rolled	2	2	3	3	4	4	5	5	6	7	7	8	8	7	9	5	10	4	11	3	12	2
Number Rolled	Times Rolled																								
2	2																								
3	3																								
4	4																								
5	5																								
6	7																								
7	8																								
8	7																								
9	5																								
10	4																								
11	3																								
12	2																								
Procedure	<ol style="list-style-type: none">Students are paired off or put into groups, depending on how many students you want in each group.One student in the group rolls the two dice and another student records the outcome of the roll.Repeat Step 2 a total of 50 times to increase quantity of data.After 50 rolls have been completed and recorded, the students will get on the computer and go to the ChartGizmo website (chartgizmo.com).The students should begin by simply creating a free account to be able to use this website by clicking on the “Get Your Free Account Today!” button at the bottom of the page.																								

¹ Lesson plan adapted from <http://www.lessonplanspage.com/MathCIProbSpreadsheets6HS.htm>

² Image taken from <http://chartgizmo.com/GenerateChart?id=9561&dumy=841552>

	<ol style="list-style-type: none">6. After an account is created, they should click on the “New Chart” button to go to the Chart Editor page.7. On the Chart Editor page, the students should begin to enter in the necessary information for their graph, including chart title, x-axis, y-axis, labels, and values for their data.8. When all the information is put into their chart, they can preview their graph by clicking the “Update Preview” button on the right side of the page.9. When the chart is complete, they should save the chart by clicking the “Save Chart” button at the bottom of the page.10. After they save their chart, they will be redirected back to the main charts page for their account, where they can preview, edit, delete, and even publish their chart in a number of different ways.
Evaluation	<ul style="list-style-type: none">• Walk around the classroom answering questions from each group and providing help to any groups needing assistance with the ChartGizmo aspect of this lesson.• Make sure each student in the group is contributing in some way, even if it means taking turns rolling the dice or recording data.• After the students have made and saved their graphs on ChartGizmo, check to make sure all necessary parts of the graph are included, like chart title, x-axis, y-axis, labels, and values for data.• Ask students about what they learned and make sure they gained a basic comprehension of the Web 2.0 Application ChartGizmo and a basic knowledge of probability.