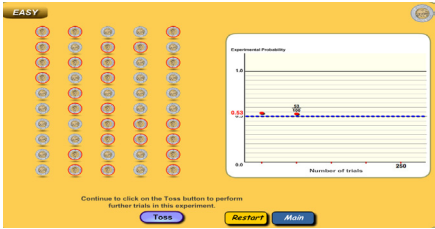
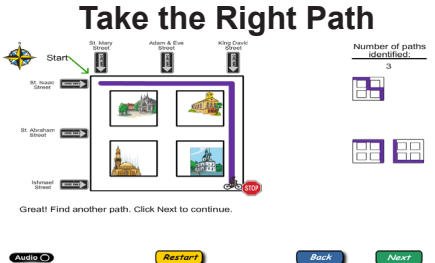
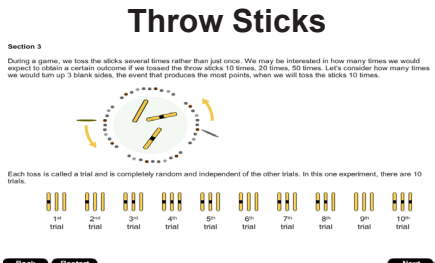
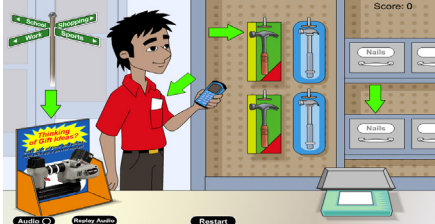


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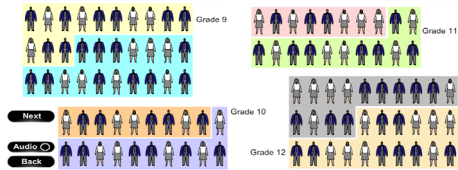
Ontario Educational Resources Bank (OERB) Activities

Counting and Probability	
Activity	Description
<p style="text-align: center;">Experimental Probabilities</p>  <p style="text-align: center;">Resource ID: ELO1243370</p>	<p>Build understanding of theoretical and experimental probability by making and testing hypotheses in three different games of chance simulations (dreidel, dice and cards).</p>
<p style="text-align: center;">Take the Right Path</p>  <p style="text-align: center;">Resource ID: ELO1243390</p>	<p>Build understanding of the connections between combinations and Pascal's triangle by completing a variety of path analyses, including several involving obstacles and required tasks.</p>
Probability Distributions	
Activity	Description
<p style="text-align: center;">Throw Sticks</p>  <p style="text-align: center;">Resource ID: ELO1243400</p>	<p>Build understanding of binomial probability distributions by analysing the probabilities of various events associated with the Aboriginal game of Throw Sticks.</p>
Organization of Data for Analysis	
Activity	Description
<p style="text-align: center;">Data, Data, More Data!</p>  <p style="text-align: center;">Resource ID: ELO1243380</p>	<p>Practise the terminology associated with different types of variables and different types of data by completing a set of multiple choice contextual questions.</p>

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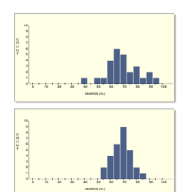
Ontario Educational Resources Bank (OERB) Activities

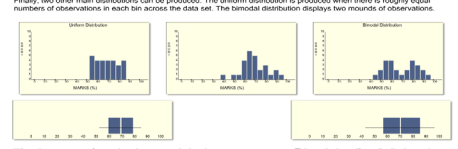
Organization of Data for Analysis (continued)

Activity	Description																											
<p style="text-align: center;">Sampling Techniques</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>Cluster Random Sampling When applying the method of cluster random sampling to choose individuals for collecting information, again a convenient way of organizing the population into different groups is necessary. Perhaps, in a school situation, the groups may be in different homerooms.</p> </div> <table border="1" style="margin-bottom: 10px;"> <thead> <tr> <th>Class</th> <th>Grade</th> <th># of Students</th> </tr> </thead> <tbody> <tr><td>1 (French)</td><td>9</td><td>13</td></tr> <tr><td>2 (Math)</td><td>9</td><td>17</td></tr> <tr><td>3 (Computers)</td><td>10</td><td>8</td></tr> <tr><td>4 (English)</td><td>10</td><td>11</td></tr> <tr><td>5 (Phys. Ed)</td><td>11</td><td>8</td></tr> <tr><td>6 (History)</td><td>11</td><td>12</td></tr> <tr><td>7 (Chemistry)</td><td>12</td><td>14</td></tr> <tr><td>8 (English)</td><td>12</td><td>16</td></tr> </tbody> </table>  <p style="text-align: center;">Resource ID: ELO1243360</p>	Class	Grade	# of Students	1 (French)	9	13	2 (Math)	9	17	3 (Computers)	10	8	4 (English)	10	11	5 (Phys. Ed)	11	8	6 (History)	11	12	7 (Chemistry)	12	14	8 (English)	12	16	<p>Build understanding of how to collect primary data by viewing explanations and examples of various sampling techniques. Practise applying this knowledge by completing a multiple choice quiz.</p>
Class	Grade	# of Students																										
1 (French)	9	13																										
2 (Math)	9	17																										
3 (Computers)	10	8																										
4 (English)	10	11																										
5 (Phys. Ed)	11	8																										
6 (History)	11	12																										
7 (Chemistry)	12	14																										
8 (English)	12	16																										

Statistical Analysis

Activity	Description
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<p style="text-align: center;">All Kinds of Distributions: Part A</p>  <p>Sample A Measures of Central Tendency Mean: 71.9 Median: 72 Mode: 72 Modal Interval: 65 - 69.9%</p> <p>Sample B Measures of Central Tendency Mean: 71 Median: 71 Mode: 72 Modal Interval: 70 - 74.9%</p> <p>Another bell-shaped distribution is shown for the quiz marks of a second group of Data Management students. As you may notice, the measures of central tendency for Sample B are very close to each other, all approximately 71%, indicating that this distribution is symmetric as well. When comparing these measures of central tendency to those for Sample A, we can see that these two distributions essentially have the same measures of central tendency.</p> <p style="text-align: center;">Resource ID: ELO1243430</p>	<p>Build understanding of measures of central tendency and spread by viewing an instructional tutorial outlining how to calculate and interpret mean, median, mode and standard deviations.</p>
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<p style="text-align: center;">All Kinds of Distributions: Part B</p> <p>Finally, two other main distributions can be produced. The uniform distribution is produced when there is roughly equal numbers of observations in each bin across the data set. The bimodal distribution displays two mounds of observations.</p>  <p>When the measures of central tendency are calculated, some patterns emerge. This particular uniform distribution and bimodal distribution are roughly symmetrical. As a result, the mean and the median tend to be located close together and near the centre of the data set.</p> <p style="text-align: center;">Resource ID: ELO1243440</p>	<p>Build understanding of classifications of distributions by viewing an instructional tutorial supported by histograms and box-whisker plots.</p>
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