|  |  |  |
| --- | --- | --- |
| **MT: Statistics and Probability** | | |
|  | **Learn** | **Practice** |
| **Target 1:** Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. (M.7.SP.2) | * <http://quizlet.com/39673372/statictics-7sp2-flash-cards/> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-population-sampling/v/statistics--sample-vs--population-mean> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-population-sampling/v/reasonable-samples> * <http://learnzillion.com/lessons/1848-make-inferences-about-a-population-by-analyzing-random-samples> * <http://learnzillion.com/lessons/1844-identify-a-random-sample> * <http://www.ck12.org/na/Random-and-Biased-Sampling-in-a-Population---7.SP.1%2C2-1/lesson/user%3Ac2ZveDJAb3N3ZWdvLm9yZw../Random-and-Biased-Sampling-in-a-Population---7.SP.1%252C2/> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-population-sampling/v/reasonable-samples> * <http://learnzillion.com/lessons/1845-identify-a-representative-sample> * <http://learnzillion.com/lessons/1850-assess-whether-an-inference-is-valid-by-analyzing-data> * <http://www.ck12.org/na/Random-and-Biased-Sampling-in-a-Population---7.SP.1%2C2-1/lesson/user%3Ac2ZveDJAb3N3ZWdvLm9yZw../Random-and-Biased-Sampling-in-a-Population---7.SP.1%252C2/> * <http://www.ck12.org/statistics/Sampling-Distributions/lecture/Statistics-Sampling/r1/> * <http://learnzillion.com/lessons/1846-generate-a-representative-sample> * <http://learnzillion.com/lessons/1847-understanding-biased-samples> * <http://learnzillion.com/lessons/1848-make-inferences-about-a-population-by-analyzing-random-samples> * <http://learnzillion.com/student/lessons/1850-assess-whether-an-inference-is-valid-by-analyzing-data> * <http://learnzillion.com/student/lessons/1851-make-estimates-about-a-population-using-the-mean-of-multiple-samples> | * <http://www.ixl.com/math/grade-6/identify-representative-random-and-biased-samples> * <http://www.ixl.com/math/grade-7/identify-representative-random-and-biased-samples> * <http://www.map.mathshell.org/materials/download.php?fileid=1078> * <http://www.ixl.com/math/grade-8/make-predictions> * <http://www.ixl.com/math/grade-8/identify-representative-random-and-biased-samples> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-population-sampling/e/valid-claims> * <http://www.ixl.com/math/grade-8/identify-representative-random-and-biased-samples> * <http://learnzillion.com/student/lessons/1848-make-inferences-about-a-population-by-analyzing-random-samples> * <http://www.map.mathshell.org/materials/download.php?fileid=1142> * <http://www.ixl.com/math/grade-7/estimate-population-size-using-proportions> * <http://learnzillion.com/student/lessons/1851-make-estimates-about-a-population-using-the-mean-of-multiple-samples> * <http://learnzillion.com/student/lessons/1850-assess-whether-an-inference-is-valid-by-analyzing-data> |
| **Target 2:** Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. (M.7.SP.4) | * <http://quizlet.com/39673707/statistics-7sp4-flash-cards/> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-central-tendency/v/statistics-intro--mean--median-and-mode> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-central-tendency/v/mean-median-and-mode> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-central-tendency/v/exploring-mean-and-median-module> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-population-sampling/v/comparing-swim-times-at-the-olympics> * <http://learnzillion.com/lessons/3601-compare-populations-using-mean> * <http://www.youtube.com/embed/z9AJk7TvdpQ> * <http://www.mathsisfun.com/data/quartiles.html> * <http://www.mathsisfun.com/data/mean-deviation.html> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-population-sampling/v/comparing-swim-times-at-the-olympics> * <http://learnzillion.com/lessons/3601-compare-populations-using-mean> * <http://learnzillion.com/lessons/3577-compare-populations-using-median> * <http://learnzillion.com/lessons/3551-make-inferences-about-range> * <http://learnzillion.com/student/lessons/1849-use-proportional-reasoning-to-make-estimates-about-a-population> * <http://learnzillion.com/lessons/3551-make-inferences-about-range> * <http://learnzillion.com/lessons/3596-compare-iqr-using-box-plots> * <http://learnzillion.com/lessons/3578-compare-two-populations-using-mean-absolute-deviation> * <http://www.mathsisfun.com/data/mean-deviation.html> | * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-central-tendency/e/mean_median_and_mode> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-central-tendency/e/average_word_problems> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-central-tendency/e/exploring_mean_and_median> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-population-sampling/v/comparing-throws> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-population-sampling/e/variation-in-samples> * <http://www.mathopolis.com/questions/q.php?id=697&site=1&ref=/data/quartiles.html&qs=697_1470_3066_698_1471_3067_3800_3801_3802_3803> * <http://www.mathopolis.com/questions/q.php?id=8838&site=1&ref=/data/mean-deviation.html&qs=8838_8839_8840_8841_8842_8843_8844_8845_8846_8847> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-population-sampling/v/comparing-throws> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-population-sampling/e/comparing-populations> * <http://www.bbc.co.uk/education/mathsfile/shockwave/games/train.html> * <http://www.ixl.com/math/grade-7/interpret-charts-to-find-mean-median-mode-and-range> * <http://www.xpmath.com/forums/arcade.php?do=play&gameid=114> * <http://www.mathopolis.com/questions/q.php?id=8838&site=1&ref=/data/mean-deviation.html&qs=8838_8839_8840_8841_8842_8843_8844_8845_8846_8847> * <http://www.ixl.com/math/grade-7/interpret-charts-to-find-mean-median-mode-and-range> |
| **Target 3:** 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. (M.7.SP.7) | * <http://quizlet.com/39673862/statistics-7sp7-flash-cards/> * <http://www.mathsisfun.com/data/probability.html> * <http://www.mathsisfun.com/probability_line.html> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-basic-prob/v/simple-probability> * <http://learnzillion.com/lessons/1588-understand-the-law-of-large-numbers-by-comparing-experimental-results-to-the-theoretical-probability> * <http://learnzillion.com/lessons/1371-compare-experimental-and-theoretical-probability-to-interpret-data> * <http://learnzillion.com/lessons/1386-predict-the-frequency-of-an-event-using-results-from-experiments> * <http://learnzillion.com/lessons/1387-predict-the-frequency-of-an-event-using-the-theoretical-probability> * <http://www.mathsisfun.com/data/probability.html> * <http://www.mathsisfun.com/activity/dice-experiment-2.html> * <http://learnzillion.com/lessons/1589-explain-discrepancies-in-results-from-a-probability-model-by-comparing-the-experimental-and-theoretical-probabilities> * <http://www.mathsisfun.com/activity/dice-experiment-2.html> * <http://learnzillion.com/lessons/1587-find-the-probability-of-events-with-multiple-possibilities> * <http://www.mathsisfun.com/data/probability-events-types.html> | * <http://www.xpmath.com/forums/arcade.php?do=play&gameid=70> * <http://www.xpmath.com/forums/arcade.php?do=play&gameid=98> * <http://www.xpmath.com/forums/arcade.php?do=play&gameid=76> * <http://www.learner.org/courses/mathilluminated/interactives/galton/> * <http://www3.stats.govt.nz/games/Mystery-spinner-challenge-2/index.html> * <http://www.mathopolis.com/questions/q.php?id=1449&site=1&ref=/data/relative-frequency.html&qs=1449_1450_1451_1452_3128_3129_3130_3131_3786_3787> * <http://resources.woodlands-junior.kent.sch.uk/maths/higher-lower/index.htm> * <http://www.xpmath.com/forums/arcade.php?do=play&gameid=108> * <http://www.xpmath.com/forums/arcade.php?do=play&gameid=107> * <http://www.mathsisfun.com/activity/dice-experiment-1.html> * <http://www.learner.org/courses/mathilluminated/interactives/galton/> * <http://illuminations.nctm.org/ActivityDetail.aspx?ID=79> * <http://www.xpmath.com/forums/arcade.php?do=play&gameid=108> * <http://www.xpmath.com/forums/arcade.php?do=play&gameid=107> * <http://www.ixl.com/math/geometry/theoretical-and-experimental-probability> * <http://www.xpmath.com/forums/games/numberSetsProbability.swf> * <http://www3.stats.govt.nz/games/Mystery-spinner-challenge-2/index.html> * <http://illuminations.nctm.org/ActivityDetail.aspx?ID=79> * <http://www.map.mathshell.org/materials/download.php?fileid=1118> * <http://www.ixl.com/math/geometry/theoretical-and-experimental-probability> |
| **Target 4:** Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.  (M.7.SP.8) | * <http://quizlet.com/39673977/statistics-7sp8-flash-cards/> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-compound-events/v/tree-diagram-to-count-outcomes> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-compound-events/v/compound-probability-of-independent-events> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-compound-events/v/tree-diagram-to-count-outcomes> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-compound-events/v/water-ballon-outcomes> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-compound-events/v/fantasy-game-outcomes> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-compound-events/v/getting-at-least-one-heads> * <http://learnzillion.com/lessons/1859-analyze-independent-and-dependent-events> * <http://www.youtube.com/embed/4vDihHK4iKY> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-compound-events/v/tree-diagram-to-count-outcomes> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-compound-events/v/water-ballon-outcomes> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-compound-events/v/fantasy-game-outcomes> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-compound-events/v/lebron-asks-about-free-throws-versus-three-pointers> * <http://learnzillion.com/lessons/1860-find-the-probability-of-a-compound-event-by-creating-an-organized-list> * <http://learnzillion.com/lessons/1861-find-the-probability-of-a-compound-event-by-creating-a-tree-diagram> * <http://www.youtube.com/embed/mkDzmI7YOx0> * <http://www.mathsisfun.com/data/probability-tree-diagrams.html> * <http://www.mathsisfun.com/data/basic-counting-principle.html> * <http://www.mathsisfun.com/data/survey-results.html> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-compound-events/v/fantasy-game-outcomes> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-compound-events/v/lebron-asks-about-the-chances-of-making-10-free-throws> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-compound-events/v/lebron-asks-about-free-throws-versus-three-pointers> * <http://www.321know.com/g7-sta-basic-cntg.htm> * <http://www.mathsisfun.com/data/probability-tree-diagrams.html> | * <http://www.mrmaisonet.com/index.php?/Probability-Quizzes/Probability-Of-Compound-Events.htm> * <http://www.algebralab.org/practice/practice.aspx?file=Algebra_ProbabilityCoin.xmll> * <http://www.math-play.com/Permutations/permutations%20millionaire.html> * <http://www.mathopolis.com/questions/q.php?id=3096&site=1&ref=/data/probability-tree-diagrams.html&qs=3096_3097_3098_3099_3830_3831_3832_3833_3100_3829> * <http://www.ixl.com/math/grade-7/compound-events-find-the-number-of-outcomes> * <http://www.mathopolis.com/questions/q.php?id=3096&site=1&ref=/data/probability-tree-diagrams.html&qs=3096_3097_3098_3099_3830_3831_3832_3833_3100_3829> * <http://www.ixl.com/math/grade-7/compound-events-find-the-number-of-outcomes> * <http://www.math-play.com/Permutations/permutations%20millionaire.html> * <http://www.mathopolis.com/questions/q.php?id=3096&site=1&ref=/data/probability-tree-diagrams.html&qs=3096_3097_3098_3099_3830_3831_3832_3833_3100_3829> * <http://www.ixl.com/math/grade-7/compound-events-find-the-number-of-outcomes> * <http://www.ixl.com/math/grade-8/compound-events-find-the-number-of-outcomes> |
| **Target 5:** Design and use a simulation to generate frequencies for compound events. (M.7.SP.8c) | * <http://quizlet.com/39674089/statistics-7sp8c-flash-cards/> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-compound-events/v/frequency-probability-and-unfair-coins> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-compound-events/v/independent-events-3> * <http://learnzillion.com/lessons/1861-find-the-probability-of-a-compound-event-by-creating-a-tree-diagram> * <http://learnzillion.com/lessons/1862-find-the-probability-of-a-compound-event-by-creating-a-table> * <http://www.youtube.com/embed/OGlW7Uz2h84> * <http://www.youtube.com/embed/-HyxOjUZ04Q> * <http://www.youtube.com/embed/4vDihHK4iKY> | * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-compound-events/e/independent_probability> * <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-compound-events/e/compound-events> * <http://www.ixl.com/math/grade-7/compound-events-find-the-number-of-outcomes> * <http://www.ixl.com/math/grade-7/probability-of-independent-and-dependent-events> * <http://www.ixl.com/math/grade-8/compound-events-find-the-number-of-outcomes> |