Standard ID	Standard Text	Edgenuity Lesson Name
6.SP	Statistics and Probability	
6.SP.A	Develop understanding of statistical variability.	
6.SP.A.1	Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. For example, ''How old am I?'' is not a statistical question, but ''How old are the students in my school?'' is a statistical question because one anticipates variability in students' ages.	
		Performance Task: Exciting Entertainment
		Plotting Data on a Dot Plot
6.SP.A.2	Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.	
		Box Plots
		Comparing Mean and Median
		Data Displays and Statistics
		Describing Data on Dot Plots
		Finding the Mean
		Mean Absolute Deviation
		Performance Task: Exciting Entertainment
		Range and Interquartile Range
		Representing Data Sets with Histograms
		Summarizing Data Sets with Statistics
6.SP.A.3	Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.	
		Comparing Mean and Median
		Finding the Mean
		Mean Absolute Deviation
		Range and Interquartile Range
		Summarizing Data Sets with Statistics
6.SP.B	Summarize and describe distributions.	
6.SP.B.4	Display numerical data in plots on a number line, including dot plots, histograms, and box plots.	
		Box Plots
		Performance Task: Exciting Entertainment
		Plotting Data on a Dot Plot
		Representing Data Sets with Histograms
6.SP.B.5	Summarize numerical data sets in relation to their context, such as by:	
6.SP.B.5a	Reporting the number of observations.	
		Data Displays and Statistics

Standard ID	Standard Text	Edgenuity Lesson Name
6.SP.B.5b	Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.	Data Displays and Statistics
6.SP.B.5c	Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.	Comparing Mean and Median Data Displays and Statistics Mean Absolute Deviation Range and Interquartile Range
6.SP.B.5d	Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.	Comparing Mean and Median Data Displays and Statistics Summarizing Data Sets with Statistics
7.SP	Statistics and Probability	
7.SP.A	Use random sampling to draw inferences about a population.	
7.SP.A.1	Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.	Inferences and Predictions Populations and Sampling Sampling Methods
7.SP.A.2	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. For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.	Multiple Samples Variation in Predictions and Estimates

Standard ID	Standard Text	Edgenuity Lesson Name
7.SP.B	Draw informal comparative inferences about two populations.	
7.SP.B.3	Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability. For example, the mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team, about twice the variability (mean absolute deviation) on either team; on a dot plot, the separation between the two distributions of heights is noticeable.	
		Analyzing Dot Plots Comparing Box Plots Comparing Measures of Center and Variability
7.SP.B.4	Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. For example, decide whether the words in a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.	
		Analyzing Dot Plots Comparing Box Plots Comparing Measures of Center and Variability
7.SP.C	Investigate chance processes and develop, use, and evaluate probability models.	
7.SP.C.5	Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around 1/2 indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.	
		Geometric Probability Performance Task: Geometric Probability Models Theoretical Probability Understanding Probability
7.SP.C.6	Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. For example, when rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times.	
		Experimental Probability Experimental vs. Theoretical Probability

Standard ID	Standard Text	Edgenuity Lesson Name
7.SP.C.7	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.	
7.SP.C.7a	Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. For example, if a student is selected at random from a class, find the probability that Jane will be selected and the probability that a girl will be selected.	Simulations to Estimate Probabilities
7.SP.C.7b	Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process. For example, find the approximate probability that a spinning penny will land heads up or that a tossed paper cup will land open-end down. Do the outcomes for the spinning penny appear to be equally likely based on the observed frequencies?	Simulations to Estimate Probabilities
7.SP.C.8	Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.	
7.SP.C.8a	Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs.	Probability of Compound Events
7.SP.C.8b	Represent sample spaces for compound events using methods such as organized lists, tables and tree diagrams. For an event described in everyday language (e.g., ''rolling double sixes''), identify the outcomes in the sample space which compose the event.	Compound Events and Sample Space Compound Events and the Fundamental Counting Principle Probability of Compound Events
7.SP.C.8c	Design and use a simulation to generate frequencies for compound events. For example, use random digits as a simulation tool to approximate the answer to the question: If 40% of donors have type A blood, what is the probability that it will take at least 4 donors to find one with type A blood?	Simulations to Estimate Probabilities
8.F	Functions	
8.F.A	Define, evaluate, and compare functions.	
8.F.A.2	Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.	Comparing Data Sets

Standard ID	Standard Text	Edgenuity Lesson Name
8.SP	Statistics and Probability	
8.SP.A	Investigate patterns of association in bivariate data.	
8.SP.A.1	Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.	
		Comparing Data Sets
		Constructing Scatterplots
		Exploring Association
		Interpreting Clusters and Outliers
8.SP.A.2	Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line.	
		Drawing Trend Lines
		Using Equations to Represent Trend Lines
8.SP.A.3	Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept. For example, in a linear model for a biology experiment, interpret a slope of 1.5 cm/hr as meaning that an additional hour of sunlight each day is associated with an additional 1.5 cm in mature plant height.	
		Making Predictions
		Using Equations to Represent Trend Lines
8.SP.A.4	Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table. Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. Use relative frequencies calculated for rows or columns to describe possible association between the two variables. For example, collect data from students in your class on whether or not they have a curfew on school nights and whether or not they have assigned chores at home. Is there evidence that those who have a curfew also tend to have chores?	
		Interpreting Two-Way Tables
		Making Two-Way Tables

Standard ID	Standard Text	Edgenuity Lesson Name
HSN	Number and Quantity	
HSN-Q	Quantities	
HSN-Q.A	Reason quantitatively and use units to solve problems.	
HSN-Q.A.1	Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.	
		Box Plots
		Line of Best Fit
HSA	Algebra	
HSA-CED	Creating Equations	
HSA-CED.A	Create equations that describe numbers or relationships.	
HSA-CED.A.3	Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.	
		Regression Models
HS-F	Functions	
HSF-IF	Interpreting Functions	
HSF-IF.A	Understand the concept of a function and use function notation.	
HSF-IF.A.2	Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.	
		Line of Best Fit
		Regression Models
HSF-IF.B	Interpret functions that arise in applications in terms of the context.	
HSF-IF.B.6	Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.	
		Regression Models
HSS-ID	Interpreting Categorical and Quantitative Data	
HSS-ID.A	Summarize, represent, and interpret data on a single count or measurement variable	
HSS-ID.A.1	Represent data with plots on the real number line (dot plots, histograms, and box plots).	
		Box Plots
		Comparing Data Sets
		Measures of Center

Standard ID	Standard Text	Edgenuity Lesson Name
HSS-ID.A.2	Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.	Box Plots Comparing Data Sets Measures of Center Standard Deviation
HSS-ID.A.3	Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers).	Box Plots Comparing Data Sets Describing Data Measures of Center Standard Deviation
HSS-ID.A.4	Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. Use calculators, spreadsheets and tables to estimate areas under the normal curve.	Applications with Standard Normal Distribution Introduction to Normal Distributions Properties of Probability Distributions
HSS-ID.B	Summarize, represent, and interpret data on two categorical and quantitative variables	
HSS-ID.B.5	Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal and conditional relative frequencies). Recognize possible associations and trends in the data.	Relative Frequencies and Association Two-Way Tables
HSS-ID.B.6	Represent data on two quantitative variables on a scatter plot and describe how the variables are related.	
HSS-ID.B.6a	Fit a function to the data; use functions fitted to data to solve problems in the context of the data. Use given functions or choose a function suggested by the context. Emphasize linear, quadratic, and exponential models.	Analyzing Residuals Line of Best Fit Regression Models Standard Deviation

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HSS-ID.B.6b	Informally assess the fit of a model function by plotting and analyzing residuals.	
		Analyzing Residuals
HSS-ID.B.6c	Fit a linear function for scatter plots that suggest a linear association.	
		Analyzing Residuals
		Line of Best Fit
		Performance Task: Super Survey Simulator
		Regression Models
		Strength of Correlation
HSS-ID.C	Interpret linear models	
HSS-ID.C.7	Interpret the slope (rate of change) and the intercept (constant term) of a linear fit in the context of the data.	
		Line of Best Fit
		Regression Models
HSS-ID.C.8	Compute (using technology) and interpret the correlation coefficient of a linear fit.	
		Strength of Correlation
HSS-ID.C.9	Distinguish between correlation and causation.	
		Strength of Correlation
HSS-IC	Making Inferences and Justifying Conclusions	
HSS-IC.A	Understand and evaluate random processes underlying statistical experiments	
HSS-IC.A.1	Understand that statistics is a process for making inferences about population parameters based on a random sample from that population.	
		Designing a Study
		Representing Data
HSS-IC.A.2	Decide if a specified model is consistent with results from a given data-generating process, e.g. using simulation. For example, a model says a spinning coin falls heads up with probability 0.5. Would a result of 5 tails in a row cause you to question the model?	
		Statistical Inferences
HSS-IC.B	Make inferences and justify conclusions from sample surveys, experiments and observational studies	
HSS-IC.B.3	Recognize the purposes of and differences among sample surveys, experiments and observational studies; explain how randomization relates to each.	
		Designing a Study
HSS-IC.B.5	Use data from a randomized experiment to compare two treatments; use simulations to decide if differences between parameters are significant.	
		Hypothesis Testing
HSS-IC.B.6	Evaluate reports based on data.	
		Representing Data

Standard ID	Standard Text	Edgenuity Lesson Name
HSS-CP	Conditional Probability and the Rules of Probability	
HSS-CP.A	Understand independence and conditional probability and use them to interpret data	
HSS-CP.A.1	Describe events as subsets of a sample space (the set of outcomes) using characteristics (or categories) of the outcomes, or as unions, intersections, or complements of other events (''or,'' ''and,'' ''not'').	Finding Outcomes Sets and Venn Diagrams Theoretical and Experimental Probability
HSS-CP.A.2	Understand that two events A and B are independent if the probability of A and B occurring together is the product of their probabilities, and use this characterization to determine if they are independent.	Probability of Independent Events Independent and Mutually Exclusive Events
HSS-CP.A.3	Understand the conditional probability of A given B as P(A and B)/P(B), and interpret independence of A and B as saying that the conditional probability of A given B is the same as the probability of A, and the conditional probability of B given A is the same as the probability of B.	Conditional Probability
HSS-CP.A.4	Construct and interpret two-way frequency tables of data when two categories are associated with each object being classified. Use the two-way table as a sample space to decide if events are independent and to approximate conditional probabilities. For example, collect data from a random sample of students in your school on their favorite subject among math, science, and English. Estimate the probability that a randomly selected student from your school will favor science given that the student is in tenth grade. Do the same for other subjects and compare the results.	Probability and Two-Way Tables
HSS-CP.A.5	Recognize and explain the concepts of conditional probability and independence in everyday language and everyday situations. For example, compare the chance of having lung cancer if you are a smoker with the chance of being a smoker if you have lung cancer.	Conditional Probability Probability and Two-Way Tables
HSS-CP.B	Use the rules of probability to compute probabilities of compound events in a uniform probability model	
HSS-CP.B.6	Find the conditional probability of A given B as the fraction of B's outcomes that also belong to A and interpret the answer in terms of the model.	Conditional Probability Probability and Two-Way Tables
HSS-CP.B.7	Apply the Addition Rule, P(A or B) = P(A) + P(B) - P(A and B), and interpret the answer in terms of the model.	Independent and Mutually Exclusive Events

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HSS-CP.B.8	(+) Apply the general Multiplication Rule in a uniform probability model, P(A and B) = P(A)P(B|A) = P(B)P(A|B), and interpret the answer in terms of the model.	Conditional Probability
HSS-CP.B.9	(+) Use permutations and combinations to compute probabilities of compound events and solve problems.	Probability with Combinations and Permutations
HSS-MD	Using Probability to Make Decisions	
HSS-MD.B	Use probability to evaluate outcomes of decisions	
HSS-MD.B.6	(+) Use probabilities to make fair decisions (e.g., drawing by lots, using a random number generator).	Performance Task: Applying Probability Concepts Expected Value
HSS-MD.B.7	(+) Analyze decisions and strategies using probability concepts (e.g. product testing, medical testing, pulling a hockey goalie at the end of a game).	Performance Task: Applying Probability Concepts Binomial Distribution Expected Value