

Common Core State Standards at a Glance



Elementary

Geometry

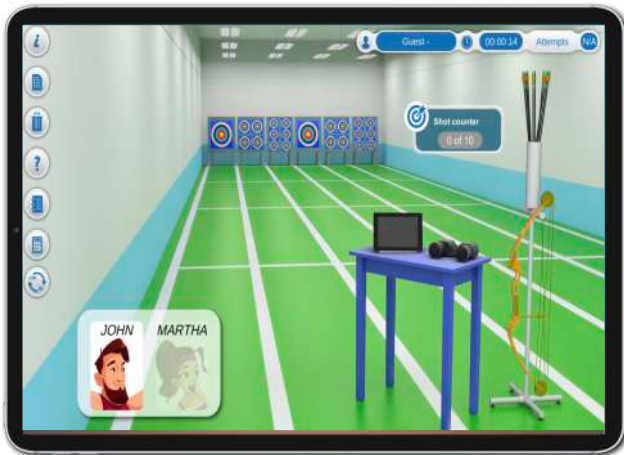
General Topic	Performance Expectations	CloudLabs Learning Unit	CloudLabs Simulations
Graph points on the coordinate plane	<p>CCSS.MATH.CONTENT.5.G.A.1 Use a pair of perpendicular number lines, called Axis, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates.</p>	<p>Area: CloudLabs Mathematics</p> <p>Unit: Cartesian coordinates</p> <p>Activity 1: Coordinates for the rescue of a naval fleet</p> <p>Activity 2: Designing with the 3D machine</p> <p>Activity 3: Drawing in cartesian coordinates</p> <p>Activity 4: Mapping the sea in a cartesian plane</p>	<ul style="list-style-type: none"> • Discovering the hidden message in the jigsaw puzzle • Exploring Africa • Avoiding a pandemic • Saving the Earth

Geometry

Middle School



General Topic	Performance Expectations	CloudLabs Learning Unit	CloudLabs Simulations
The Pythagorean Theorem	<p>CCSS.MATH.CONTENT.8.G.B.7 Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.</p> <p>CCSS.MATH.CONTENT.8.G.B.8 Apply the Pythagorean Theorem to find the distance between two points in a coordinate system.</p>	<p>Area: Mathematics II</p> <p>Unit: Triangles and trigonometric ratios</p> <p>Activity 1: Angles and the Pythagorean Theorem</p> <p>Activity 2: Trigonometric ratios</p> <p>Activity 3: Law of sines and cosines</p>	<ul style="list-style-type: none"> • Suspension Bridge - Pythagoras Theorem • London Bridge Maintenance - Trigonometric ratios • London Bridge Rescue - Trigonometric Ratios • Triangles - Free practice



High and Middle School

Statistics and Probability

General Topic	Performance Expectations	CloudLabs Learning Unit	CloudLabs Simulations
Statistical variability	<p>CCSS.MATH.CONTENT.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.</p> <p>CCSS.MATH.CONTENT.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.</p>	<p>Area: Mathematics I</p> <p>Unit: Statistics</p> <p>Activity 1: Descriptive statistics</p> <p>Activity 2: Probability</p> <p>Activity 3: Probability counting methods</p>	<ul style="list-style-type: none"> Measuring the child development process - Non-clustered data statistics Marketing campaign audit - Statistical distribution Population control in a butterfly farm - Statistics of grouped data Selection of captain for archery team
Rules of probability to compute probabilities of compound events	<p>CCSS.MATH.CONTENT.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.</p> <p>CCSS.MATH.CONTENT.HSS.CP.B.8 Apply the general Multiplication Rule in a uniform probability model, $P(A \text{ and } B) = P(A)P(B A) = P(B)P(A B)$, and interpret the answer in terms of the model.</p>	<p>Area: Mathematics II</p> <p>Unit: robability</p> <p>Activity 1: Concept of probability</p> <p>Activity 2: Counting techniques</p> <p>Activity 3: Conditioned probability and Bayes' theorem</p>	<ul style="list-style-type: none"> Decrypting coordinates- counting techniques Blackjack - Probability of events Determining the origin of an infestation - Bayes' theorem