Common Core State Standards
Aligned to *Action Math Baseball* Activities

The activities in *Action Math Baseball* are linked to key Common Core math standards. The software tracks and measures each student's performance on these activities and generates class and student assessment reports.

Performance Standards	Standard Description	Game Activities
5.OA Write and interpret numerical expressions.	Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.	1. On-base percentage 2. Total bases (slugging avg.)
5.NBT Understand the place value system.	Read, write, and compare decimals to thousandths.	1. Rank batting average 2. Rank on-base percentage
5.NBT Understand the place value system.	Use place value understanding to round decimals to any place	Convert ratio to decimal and round to four places
5.NBT Perform operations with multi-digit whole numbers and decimals to hundredths.	Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.	1. Home run ratio 2. Strikeout ratio 3. Slugging Average
5.NF Use equivalent fractions as a strategy to add and subtract fractions.	Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers.	Compute fractions for probability table (player's wheel)
6.RP Understand ratio concepts and use ratio reasoning to solve problems.	Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities.	Apply ratios to the player's wheel
6.RP Understand ratio concepts and use ratio reasoning to solve problems.	Understand the concept of a unit rate a/b associated with a ratio a:b with b $\neq$ 0, and use rate language in the context of a ratio relationship.	1.Compute home run ratio 2. Compute on-base percentage

Common Core State Standards
Aligned to *Action Math Baseball* Activities

Performance Standards	Standard Description	Game Activities
6.RP Understand ratio concepts and use ratio reasoning to solve problems.	Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.	Identify the appropriate player to be selected in the Free Agent Draft
6.NS Compute fluently with multi-digit numbers and find common factors and multiples.	Fluently multiply multi-digit numbers using the standard algorithm.	1. Batting average 2. On-base percentage 3. Home run ratio 4. Strikeout ratio 5. Slugging average
6.NS Compute fluently with multi-digit numbers and find common factors and multiples.	Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.	1. Compute batting average 2. Compute slugging average 3. Compute on-base percentage
6.EE Apply and extend previous understandings of arithmetic to algebraic expressions.	Write, read, and evaluate expressions in which letters stand for numbers.	Compute Player Stats
6.EE Reason about and solve one-variable equations and inequalities.	Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.	Compute all stats necessary for determining best year.
6.EE Reason about and solve one-variable equations and inequalities.	Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.	1. Slugging average 2. Home run ratio 3. Strikeout ratio
6.SP Develop understanding of statistical variability.	Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers.	Draft players that improve your overall team's batting performance
6.SP Summarize and describe distributions.	Summarize numerical data sets in relation to their context, such as by: A. Reporting the number of observations. B. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.	Compute Player Stats, Best Year and Wheel stats calculations

Common Core State Standards
Aligned to *Action Math Baseball* Activities

Performance Standards	Standard Description	Game Activities
7.RP Analyze proportional relationships and use them to solve real-world and mathematical problems.	Recognize and represent proportional relationships between quantities.	Create player's wheel
7.RP Analyze proportional relationships and use them to solve real-world and mathematical problems.	Use proportional relationships to solve multistep ratio and percent problems.	Proportion 360 degrees for each type of hit
7.NS Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.	Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.	1. Home run ratio 2. Strikeout ratio 3. Slugging average 4. Plate Appearance 5. On-base percentage
7.NS Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.	Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.	Compute formulas for player stats, best year and player's wheel.
7.EE Solve real-life and mathematical problems using numerical and algebraic expressions and equations.	Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.	Compute wheel stats using ratios, decimals and percents
7.SP Investigate chance processes and develop, use, and evaluate probability models.	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.	Compute degrees for the player's wheel
7.SP Investigate chance processes and develop, use, and evaluate probability models.	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.	1. Apply probability statistics 2. Create the player's wheel

Common Core State Standards
Aligned to *Action Math Baseball* Activities

Performance Standards	Standard Description	Game Activities
7.SP Investigate chance processes and develop, use, and evaluate probability models.	Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.	Compute counts, decimals, percentages and degrees for wheel stats grid
MATH PRACTICE 1	Make sense of problems and persevere in solving them.	1. Compute best year for all players 2. Draft players to replace low performing batters
MATH PRACTICE 2	Reason abstractly and quantitatively.	1. Identify the appropriate player to be drafted 2. Identify the appropriate players that should be traded
MATH PRACTICE 3	Construct viable arguments and critique the reasoning of others.	Achieve a winning record
MATH PRACTICE 4	Model with mathematics	Improve team's overall batting average, on-base percentage and slugging average
MATH PRACTICE 5	Use appropriate tools strategically.	1. Set batting order 2. Bunt appropriately 3. Draft players appropriately
MATH PRACTICE 6	Attend to precision.	1. Compute calculations accurately 2. Set batting order appropriately