Mathematics Standards Alignment Guide

Grades 5–7 · Middle School Mathematics

Common Core (CCSS) with crosswalks to Texas (TEKS), Florida (B.E.S.T.), and Virginia (SOL)

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State crosswalk codes — verify against your district's adopted standards.

Purpose & How to Use This Guide

Action Math Baseball (AMB) is a performance-based math learning simulation for grades 5–7. As students draft Major League All-Star teams and manage their lineups, the software automatically measures the mathematics they apply and generates student- and class-level standards reports on demand.

This guide documents the specific mathematics standards AMB addresses. It is written for curriculum directors, math coordinators, and procurement reviewers who must confirm that a resource aligns to their adopted standards before purchase.

It is organized in three layers: **(1)** the Common Core alignment, with the AMB activity that exercises each standard; **(2)** a multi-state crosswalk to Texas, Florida, and Virginia; and **(3)** state-specific notes that flag every place the alignment is less than exact.

Common Core is used as the hub because AMB's scoring engine is itself organized by Common Core codes; nearly every state's standards can be mapped through it.

How alignment was determined

The Common Core codes in this guide are taken directly from AMB's standards-scoring logic — they are the codes the software uses to compute its standards reports, not after-the-fact labels. The Texas, Florida, and Virginia codes were matched to each Common Core standard against those states' official published standards and verified conservatively: where the content and grade align directly we say so, and where they do not, we say that too rather than overstate coverage.

Match-rating key

Exact	Same content at the same grade level — a direct one-to-one match.
Close	Same content, but the state standard is slightly broader/narrower or placed at an adjacent grade.
Partial	Related content that the state standard covers indirectly or splits across several standards.
no direct match	The state does not teach this topic at this grade band; shown honestly as a gap.

Coverage at a Glance

AMB exercises 30 standards across the six middle-grades math strands. Grade-level content spans grades 5–7; the six Standards for Mathematical Practice apply across all grades.

Strand	Grade band	Standards
Number & Operations (Base Ten & Fractions)	Grade 5	**5**
Ratios & Proportional Relationships	Grades 6–7	**5**
The Number System	Grades 6–7	**5**
Expressions & Equations	Grade 6	**3**
Statistics & Probability	Grades 6–7	**6**
Standards for Mathematical Practice	All grades	**6**
Total		**30**

Table A — Common Core Alignment & Game Activities

Each AMB standard, its Common Core code, and the in-game activity through which students apply it. This is the alignment the software measures and reports.

#	CCSS	Standard	AMB game activity
Number & Operations (Gr 5)			
1	**5.OA.A.1**	Evaluate numerical expressions using parentheses, brackets, or braces.	On-base Percentage; Total Bases (Slugging Avg.)
2	**5.NBT.A.3**	Read, write, and compare decimals to the thousandths.	Rank Batting Average; Rank On-base Percentage
3	**5.NBT.A.4**	Use place value understanding to round decimals to any place.	Convert ratio to decimal and round to four places
4	**5.NBT.B.7**	Add, subtract, multiply, and divide decimals using concrete models.	Home Run Ratio; Strikeout Ratio; Slugging Average
5	**5.NF.A.2**	Solve problems involving addition and subtraction of fractions.	Compute fractions for the probability table (Player's Wheel)
Ratios & Proportional Relationships			
6	**6.RP.A.1**	Understand ratio concepts and use ratio reasoning to solve problems.	Apply ratios to the Player's Wheel
7	**6.RP.A.2**	Understand the concept of, and derive, a unit rate associated with a ratio.	Compute Home Run Ratio; Compute On-base Percentage
8	**6.RP.A.3**	Use ratio and rate reasoning to solve real-world and mathematical problems.	Identify players to trade; identify players to draft
The Number System			
9	**5.NBT.B.5 / 6.NS.B.2**	Fluently multiply and divide multi-digit numbers using the standard algorithm.	Batting Avg.; On-base %; Home Run Ratio; Strikeout Ratio; Slugging Avg.
10	**6.NS.B.3**	Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm.	Compute Batting Average, Slugging Average, On-base Percentage
Expressions & Equations			
11	**6.EE.A.2**	Write and evaluate numerical expressions in which letters stand for numbers.	Compute Player Stats
12	**6.EE.B.5**	Solve an equation or inequality as a question: which values make it true.	Compute all stats needed to determine the Best Year
13	**6.EE.B.6**	Use variables to represent numbers and write expressions for real-world problems.	Slugging Average; Home Run Ratio; Strikeout Ratio
Statistics & Probability			
14	**6.SP.A.1**	Recognize a statistical question as one that anticipates variability in the data.	Draft players that improve overall team batting performance
15	**6.SP.B.5**	Summarize numerical data sets in relation to their context.	Compute Player Stats, Best Year, and Wheel Stats
Ratios & Proportional Relationships			
16	**7.RP.A.2**	Recognize and represent proportional relationships between quantities.	Create the Player's Wheel
17	**7.RP.A.3**	Use proportional relationships to solve multistep ratio and percent problems.	Proportion 360° for each type of batting outcome
The Number System			
18	**7.NS.A.1**	Represent addition and subtraction on a horizontal	Home Run Ratio; Strikeout Ratio; Slugging

#	CCSS	Standard	AMB game activity
		or vertical number line diagram.	Avg.; Plate Appearance; On-base %
19	**7.NS.A.2**	Apply and extend understanding of operations with fractions to multiply and divide rational numbers.	Compute formulas for Player Stats, Best Year, and Player's Wheel
Statistics & Probability			
20	**7.EE.B.3**	Solve multi-step real-life problems posed with positive rational numbers.	Compute Wheel Stats using ratios, decimals, and percents
The Number System			
21	**6.NS.C.6**	Graph and interpret points on a number line and the coordinate plane.	Review, interpret, and select data points on number line and coordinate-plane plots
Statistics & Probability			
22	**7.SP.C.6**	Approximate the probability of a chance event by collecting data on relative frequency.	Compute degrees for the Player's Wheel
23	**7.SP.C.7**	Develop a probability model and use it to find probabilities of events.	Apply probability statistics; create the Player's Wheel
24	**7.SP.C.8**	Find probabilities of compound events using lists, tables, tree diagrams, and simulation.	Compute counts, decimals, percentages, and degrees for the Wheel Stats grid
Mathematical Practices			
25	**MP1**	Make sense of problems and persevere in solving them.	Compute Best Year for all players; draft to replace low performers
26	**MP2**	Reason abstractly and quantitatively.	Identify appropriate players to draft and trade
27	**MP3**	Construct viable arguments and critique the reasoning of others.	Build a strong All-Star team and achieve a winning record
28	**MP4**	Model with mathematics.	Improve team Batting Average, On-base Percentage, Slugging Average
29	**MP5**	Use appropriate tools strategically.	Set Batting Order; bunt appropriately; draft appropriately
30	**MP6**	Attend to precision.	Compute calculations accurately; set Batting Order appropriately

Table B — Multi-State Crosswalk

Common Core standard mapped to the nearest standard in each state, with a conservative match rating. “no direct match” means the state does not address that topic at this grade band — see the notes that follow. Practice-standard codes (#25–30) use each state’s process-standards strand.

#	CCSS	Texas — TEKS	Florida — B.E.S.T.	Virginia — SOL (2023)
1	**5.OA.A.1**	5.4E, 5.4F *(Close)*	MA.5.AR.2.2 *(Close)*	5.CE.4 *(Close)*
2	**5.NBT.A.3**	5.2A, 5.2B *(Exact)*	MA.5.NSO.1.2, 1.4 *(Exact)*	5.NS.1 *(Close)*
3	**5.NBT.A.4**	5.2C *(Close)*	MA.5.NSO.1.5 *(Close)*	5.CE.3 *(Partial)*
4	**5.NBT.B.7**	5.3E, 5.3G, 5.3K *(Close)*	MA.5.NSO.2.3 *(Close)*	5.CE.3 *(Exact)*
5	**5.NF.A.2**	5.3H, 5.3K *(Close)*	MA.5.AR.1.2 *(Close)*	5.CE.2 *(Exact)*
6	**6.RP.A.1**	6.4C *(Close)*	MA.6.AR.3.1 *(Exact)*	6.PFA.1 *(Exact)*
7	**6.RP.A.2**	6.4D *(Close)*	MA.6.AR.3.2 *(Exact)*	6.PFA.2 *(Exact)*
8	**6.RP.A.3**	6.4B, 6.5A *(Close)*	MA.6.AR.3.5 *(Exact)*	6.PFA.2 *(Close)*
9	**5.NBT.B.5 / 6.NS.B.2**	5.3B, 5.3C *(Close)*	MA.5.NSO.2.1, MA.6.NSO.2.1 *(Close)*	5.CE.1 *(Close)*
10	**6.NS.B.3**	5.3E, 5.3G, 5.3K *(Partial)*	MA.6.NSO.2.1 *(Close)*	5.CE.3 *(Partial)*
11	**6.EE.A.2**	6.7A, 6.7B *(Partial)*	MA.6.AR.1.1, 1.3 *(Exact)*	6.PFA.3 *(Partial)*
12	**6.EE.B.5**	6.10B *(Close)*	MA.6.AR.2.1 *(Exact)*	6.PFA.3, 6.PFA.4 *(Close)*
13	**6.EE.B.6**	6.9A *(Close)*	MA.6.AR.1.1 *(Close)*	6.PFA.3 *(Close)*
14	**6.SP.A.1**	6.13B *(Close)*	MA.6.DP.1.1 *(Exact)*	6.PS.1 *(Partial)*
15	**6.SP.B.5**	6.12B, 6.12C *(Close)*	MA.6.DP.1.2 *(Close)*	6.PS.2 *(Close)*
16	**7.RP.A.2**	7.4A, 7.4C *(Close)*	MA.7.AR.4.1 *(Exact)*	7.PFA.1 *(Exact)*
17	**7.RP.A.3**	7.4D *(Exact)*	MA.7.AR.3.1 *(Exact)*	7.CE.2 *(Exact)*
18	**7.NS.A.1**	7.3A, 7.3B *(Close)*	MA.7.NSO.2.2 *(Close)*	7.CE.1 *(Close)*
19	**7.NS.A.2**	7.3A, 7.3B *(Close)*	MA.7.NSO.2.2 *(Close)*	7.CE.1 *(Close)*
20	**7.EE.B.3**	7.11A, 7.4D *(Partial)*	MA.7.NSO.2.3 *(Close)*	7.CE.1 *(Close)*
21	**6.NS.C.6**	6.2C, 6.11A *(Exact)*	MA.6.NSO.1.1, MA.6.GR.1.1 *(Exact)*	6.NS.2, 6.MG.3 *(Close)*
22	**7.SP.C.6**	7.6C, 7.6I *(Close)*	MA.7.DP.2.4 *(Close)*	7.PS.1 *(Exact)*
23	**7.SP.C.7**	7.6D, 7.6E *(Close)*	MA.7.DP.2.3 *(Close)*	7.PS.1 *(Close)*
24	**7.SP.C.8**	7.6A *(Exact)*	*no direct match*	*no direct match*

#	CCSS	Texas — TEKS	Florida — B.E.S.T.	Virginia — SOL (2023)
25	**MP1**	5/6/7.1A, .1B *(Exact)*	MA.K12.MTR.1.1 *(Close)*	Problem Solving *(Close)*
26	**MP2**	5/6/7.1B, .1E *(Close)*	MA.K12.MTR.2.1 *(Partial)*	Reasoning *(Close)*
27	**MP3**	5/6/7.1G *(Close)*	MA.K12.MTR.4.1 *(Exact)*	Reasoning + Comm. *(Close)*
28	**MP4**	5/6/7.1A, .1D *(Close)*	MA.K12.MTR.7.1 *(Close)*	Connections + Repr. *(Close)*
29	**MP5**	5/6/7.1C *(Exact)*	*no direct match*	Representations *(Partial)*
30	**MP6**	5/6/7.1G *(Exact)*	MA.K12.MTR.6.1 *(Partial)*	Communication *(Partial)*

Rating key: Exact = direct match · Close = adjacent grade / scope · Partial = covered indirectly · *no direct match* = topic not taught at this grade band

State-Specific Notes & Known Gaps

In the spirit of giving curriculum reviewers an honest picture, every less-than-exact match in the crosswalk is explained here.

Texas (TEKS)

- Decimal fluency (10) is a Grade 5 expectation in Texas (5.3E/G/K), not Grade 6; rated Partial for grade placement.
- Evaluating expressions with variables (11) has no clean Grade 6 TEKS expectation — Texas focuses on distinguishing and generating expressions (6.7); rated Partial.
- Multi-step problems with rational numbers (20) are spread across 7.3B, 7.4D, and 7.11 rather than one expectation; rated Partial.
- Texas separates nothing for the two rational-number standards (18, 19): both map to 7.3A/7.3B because TEKS does not split add/subtract from multiply/divide.
- Rounding (3) and multiply and divide multi-digit numbers (9) are rated Close because TEKS imposes explicit numeric limits (tenths/hundredths; 3-digit × 2-digit) where CCSS is open-ended.
- Practice standards map to the TEKS Mathematical Process Standards (the ".1" strand), which is identical at 5.1, 6.1, and 7.1.

Florida (B.E.S.T.)

- Compound-event probability (24) has no B.E.S.T. equivalent at Grade 7 — Florida defers compound events; shown as a genuine gap.
- Procedural fluency for decimal multiplication/division (4) lands a grade later in Florida (Grade 6, MA.6.NSO.2.1); Grade 5 only "explores."
- Florida merges all four rational-number operations into one benchmark (MA.7.NSO.2.2), so standards 18 and 19 share it.
- Practice standards map to Florida's Mathematical Thinking and Reasoning (MTR) benchmarks. Florida reorganized the eight practices into seven MTRs, so "use appropriate tools" (29) has no dedicated MTR (Partial), and precision (30) is only partially covered by MTR.6.1.

Virginia (SOL, 2023)

- Compound-event probability (24) has no equivalent in Virginia's 2023 Grade 7 SOL — 7.PS.1 covers single-event probability only; shown as a gap.
- Graphing points (21) maps to Virginia Grade 6: the coordinate-plane half (6.MG.3) is exact; the number-line half (6.NS.2) covers integers, slightly narrower than CCSS's full rational-number scope, so rated Close.
- Decimal fluency (10) is a Grade 5 topic in Virginia (5.CE.3), a grade earlier than CCSS; rated Partial.
- Virginia has no standalone rounding standard (3); rounding lives as an estimation skill inside 5.CE.3.
- Caution for reviewers: Virginia's 7.NS.1 is scientific notation, not rational-number operations — those are 7.CE.1.
- Practice standards map to Virginia's five Mathematical Process Goals (Problem Solving, Communication, Reasoning, Connections, Representations), which are woven through the content standards rather than coded individually.

Verification & Sources

Common Core codes were taken from Action Math Baseball's standards-scoring logic. State crosswalk codes were verified against the following official sources:

- Texas: 19 Texas Administrative Code Chapter 111 (TEKS for Mathematics), Texas Education Agency — tea.texas.gov.
- Florida: B.E.S.T. Standards for Mathematics, Florida Department of Education and CPALMS — fldoe.org / cpalms.org.
- Virginia: 2023 Mathematics Standards of Learning, Virginia Department of Education — doe.virginia.gov.

A note on rigor: The Common Core layer reflects Action Math Baseball's own scoring engine and is authoritative. The three state crosswalks are accurate to the published state standards but should be verified against your district's locally adopted standards. Where a state code is followed by "Close" or "Partial," the alignment is real but not one-to-one; "no direct match" items are disclosed as gaps rather than omitted.