

MATH TOGETHER™ MATRIX FOR NCTM ALIGNMENT

STORY	LAUNCH	MATH CONCEPT		NCTM STANDARD
		Main	Secondary	STRAND
1)“Meet the M Team”	Nice to Meet You	Main: Overview	Secondary: None	N/A
2)“The M Team Rides with Paul Revere”	How long is a minute?	Main: SOLVE Measurement	Secondary: Numeration (-) Two-step problems Journal Entry	Number and Operations: 2, 3 Measurement: 1, 2 Algebra: 1, 2 Problem Solving: 1, 2, 3, 4 Reasoning and Proof: 1, 2, 3, 4 Communication: 1, 2, 3, 4 Connections: 1, 2, 3, 4 Representation: 1, 2, 3
3)“The M Team Meets George Washington”	What would you do with \$100?	Main: SOLVE Measurement (money)	Secondary: Numeration (-,x) Estimation Two-step problems Journal Entry	Number and Operations: 2, 3 Measurement 1, 2 Algebra: 1, 2 Problem Solving: 1, 2, 3, 4 Reasoning and Proof: 1, 2, 3, 4 Communication: 1, 2, 3, 4 Connections: 1, 2, 3, 4 Representation: 1, 2, 3

STORY	LAUNCH	MATH CONCEPT		NCTM STANDARD
		Main	Secondary	STRAND
4)“The M Team at the Constitutional Convention”	How long is a kilometer?	Main: SOLVE Measurement (distance)	Secondary: Numeration (-,+), Estimation Journal Entry	Number and Operations: 2, 3 Measurement: 1, 2 Algebra: 1, 2 Problem Solving: 1, 2, 3, 4 Reasoning and Proof: 1, 2, 3, 4 Communication: 1, 2, 3, 4 Connections: 1, 2, 3, 4 Representation: 1, 2, 3
5)“The M Team Visits the Louisiana Purchase”	None	Main: SOLVE Measurement (money, perimeter)	Secondary: Numeration (x, compare) Estimation Two-step problems Journal Entry	Number and Operations: 2, 3 Measurement: 1, 2 Algebra: 1, 2 Problem Solving: 1, 2, 3, 4 Reasoning and Proof: 1, 2, 3, 4 Communication: 1, 2, 3, 4 Connections: 1, 2, 3, 4 Representation: 1, 2, 3
6)“The M Team Meets Lewis and Clark”	Word pronunciation	Main: SOLVE Fact Families	Secondary: Numeration (x) Estimation Journal Entry	Number and Operations: 1, 2, 3 Algebra: 1, 2 Problem Solving: 1, 2, 3, 4 Reasoning and Proof: 1, 2, 3, 4 Communication: 1, 2, 3, 4 Connections: 1, 2, 3, 4 Representation: 1, 2, 3

STORY	LAUNCH	MATH CONCEPT	NCTM STANDARD
		Main Secondary	STRAND
7) No story	None	Main: Fact Families Secondary: Numeration (+,-) Journal Entry	Number and Operations: 1, 2, 3 Algebra: 1, 2 Problem Solving: 1, 2, 3, 4 Reasoning and Proof: 1, 2, 3, 4 Communication: 1, 2, 3, 4 Connections: 1, 2, 3, 4 Representation: 1, 2, 3
8) "The M Team at the Alamo"	None	Main: SOLVE Graphing Secondary: Numeration Estimation Two-step problems Journal Entry	Number and Operations: 1, 2, 3 Data Analysis 1, 2, 3 Algebra: 1, 2, 3, 4 Problem Solving: 1, 2, 3, 4 Reasoning and Proof: 1, 2, 3, 4 Communication: 1, 2, 3, 4 Connections: 1, 2, 3, 4 Representation: 1, 2, 3
9) "The M Team and the California Gold Rush"	None	Main: SOLVE Graphing Secondary: Numeration (-) Estimation Write a word problem Journal Entry	Number and Operations: 1, 2, 3 Data Analysis 1, 2, 3 Algebra: 1, 2, 3, 4 Problem Solving: 1, 2, 3, 4 Reasoning and Proof: 1, 2, 3, 4 Communication: 1, 2, 3, 4 Connections: 1, 2, 3, 4 Representation: 1, 2, 3

STORY	LAUNCH	MATH CONCEPT	NCTM STANDARD
		Main Secondary	STRAND
10)“The M Team Meets Harriet Tubman”	None	Main: SOLVE Coordinate Grids Secondary: Estimation Write a word problem Journal Entry	Number and Operations: 1, 2, 3 Geometry 2 Data Analysis 1, 2, 3 Algebra: 1, 2, 3, 4 Problem Solving: 1, 2, 3, 4 Reasoning and Proof: 1, 2, 3, 4 Communication: 1, 2, 3, 4 Connections: 1, 2, 3, 4 Representation: 1, 2, 3
11)“The M Team and the First Transcontinental Railroad”	Probability	Main: SOLVE Probability Unnecessary Data Secondary: Estimation Write a word problem Journal Entry	Number and Operations: 1, 2, 3 Data Analysis 1, 2, 3, 4 Algebra: 1, 2, 3, 4 Problem Solving: 1, 2, 3, 4 Reasoning and Proof: 1, 2, 3, 4 Communication: 1, 2, 3, 4 Connections: 1, 2, 3, 4 Representation: 1, 2, 3

STORY	LAUNCH	MATH CONCEPT	NCTM STANDARD
		Main Secondary	STRAND
12)“The M Team Meets Thomas Edison”	None	Main: SOLVE Graphing Probability Secondary: Numeration (-) Unnecessary Data Estimation Write a word problem Journal Entry	Number and Operations: 1, 2, 3 Data Analysis 1, 2, 3, 4 Algebra: 1, 2, 3, 4 Problem Solving: 1, 2, 3, 4 Reasoning and Proof: 1, 2, 3, 4 Communication: 1, 2, 3, 4 Connections: 1, 2, 3, 4 Representation: 1, 2, 3
13)“The M Team and the Wright Brothers”	None	Main SOLVE Graphing Measurement Secondary: Numeration (-), Unnecessary Data Estimation Write a word problem Journal Entry	Number and Operations: 1, 2, 3 Data Analysis 1, 2, 3 Measurement: 1, 2 Algebra: 1, 2, 3, 4 Problem Solving: 1, 2, 3, 4 Reasoning and Proof: 1, 2, 3, 4 Communication: 1, 2, 3, 4 Connections: 1, 2, 3, 4 Representation: 1, 2, 3

STORY	LAUNCH	MATH CONCEPT	NCTM STANDARD
		Main Secondary	STRAND
14)“The M Team Meets George Washington Carver”	Grid pictures	Main SOLVE Geometry (congruent shapes) Secondary: Measurement Estimation Write a word problem Two-step problems Journal Entry	Number and Operations: 1, 2, 3 Geometry 1, 2, 4 Measurement: 1, 2 Algebra: 1, 2, 3, 4 Problem Solving: 1, 2, 3, 4 Reasoning and Proof: 1, 2, 3, 4 Communication: 1, 2, 3, 4 Connections: 1, 2, 3, 4 Representation: 1, 2, 3
15)“The M Team at the Panama Canal”	Creating polygons with paper	Main: SOLVE Geometry (polygons, congruent shapes) Secondary: Numeration (-) Estimation Write a word problem Journal Entry	Number and Operations: 1, 2, 3 Geometry: 1, 4 Algebra: 1, 2 Problem Solving: 1, 2, 3, 4 Reasoning and Proof: 1, 2, 3, 4 Communication: 1, 2, 3, 4 Connections: 1, 2, 3, 4 Representation: 1, 2, 3

STORY	LAUNCH	MATH CONCEPT	NCTM STANDARD
		Main Secondary	STRAND
16)“The M Team, Together Again”	None	Main: SOLVE Numeration Multiplication Facts Secondary: Journal Entry	Number and Operations: 1, 2, 3 Algebra: 1, 2 Problem Solving: 1, 2, 3, 4 Reasoning and Proof: 1, 2, 3, 4 Communication: 1, 2, 3, 4 Connections: 1, 2, 3, 4 Representation: 1, 2, 3
17)“The M Team Flies with WWI Ace Pilot”	Build a pyramid	Main: SOLVE Multiplication Facts Geometry (polygons, polyhedron) Secondary: Measurement (perimeter) Estimation Unnecessary Data Write a word problem Journal Entry	Number and Operations: 1, 2, 3 Geometry: 1, 4 Measurement: 1, 2 Algebra: 1, 2, 3, 4 Problem Solving: 1, 2, 3, 4 Reasoning and Proof: 1, 2, 3, 4 Communication: 1, 2, 3, 4 Connections: 1, 2, 3, 4 Representation: 1, 2, 3

STORY	LAUNCH	MATH CONCEPT	NCTM STANDARD
		Main Secondary	STRAND
18)“The M Team Attends a Woman Suffrage Meeting”	Build two polyhedron	Main: SOLVE Geometry (polygon, polyhedron patterns) Multiplication Facts Secondary: Estimation Journal Entry	Number and Operations: 1, 2, 3 Geometry: 1, 4 Algebra: 1, 2, 3, 4 Problem Solving: 1, 2, 3, 4 Reasoning and Proof: 1, 2, 3, 4 Communication: 1, 2, 3, 4 Connections: 1, 2, 3, 4 Representation: 1, 2, 3
19)“The M Team at Pearl Harbor”	Measure perimeter of desk	Main: SOLVE Measurement (perimeter and area) Multiplication Facts Secondary: Numeration (-) Estimation Unnecessary Data Write a word problem Journal Entry	Number and Operations: 1, 2, 3 Measurement: 1, 2 Algebra: 1, 2, 3, 4 Problem Solving: 1, 2, 3, 4 Reasoning and Proof: 1, 2, 3, 4 Communication: 1, 2, 3, 4 Connections: 1, 2, 3, 4 Representation: 1, 2, 3

STORY	LAUNCH	MATH CONCEPT		NCTM STANDARD
		Main	Secondary	STRAND
20) "The M Team on D Day"	Build a real graph	Main: SOLVE Pictographs Multiplication Facts Secondary: Numeration (-, +, ÷ and comparison) Estimation Unnecessary Data Write a word problem Two-step problems Journal Entry		Number and Operations: 1, 2, 3 Data Analysis 1, 2, 3 Algebra: 1, 2, 3, 4 Problem Solving: 1, 2, 3, 4 Reasoning and Proof: 1, 2, 3, 4 Communication: 1, 2, 3, 4 Connections: 1, 2, 3, 4 Representation: 1, 2, 3
21) "The M Team Visits a MASH Unit"	Sorting chips for odd and even	Main: SOLVE Odd and even numbers Multiplication Facts Secondary: Numeration (+), Estimation Write a word problem Journal Entry		Number and Operations: 1, 2, 3 Algebra: 1, 2 Problem Solving: 1, 2, 3, 4 Reasoning and Proof: 1, 2, 3, 4 Communication: 1, 2, 3, 4 Connections: 1, 2, 3, 4 Representation: 1, 2, 3
22) "The M Team Rides with Rosa Parks"	Building place value mats	Main: SOLVE Numeration (Expanded notation, place value) Multiplication Facts Secondary: Estimation Unnecessary Data Write a word problem Journal Entry		Number and Operations: 1, 2, 3 Algebra: 1, 2 Problem Solving: 1, 2, 3, 4 Reasoning and Proof: 1, 2, 3, 4 Communication: 1, 2, 3, 4 Connections: 1, 2, 3, 4 Representation: 1, 2, 3

STORY	LAUNCH	MATH CONCEPT	NCTM STANDARD
		Main Secondary	STRAND
23)“The M Team Hears Martin Luther King, Jr.”	Sorting sets of letters	Main: SOLVE Sets Empty sets Venn Diagram Multiplication Facts Secondary: Estimation Unnecessary Data Write a word problem Journal Entry	Number and Operations: 1, 2, 3 Data Analysis 1, 2, 3 Algebra: 1, 2, 3, 4 Problem Solving: 1, 2, 3, 4 Reasoning and Proof: 1, 2, 3, 4 Communication: 1, 2, 3, 4 Connections: 1, 2, 3, 4 Representation: 1, 2, 3
24)“The M Team Witnesses the Kennedy Assassination”	Finding empty sets	Main: SOLVE Pictographs Bar graphs Sets Multiplication Facts Secondary: Estimation Write a word problem Journal Entry	Number and Operations: 1, 2, 3 Data Analysis 1, 2, 3 Algebra: 1, 2, 3, 4 Problem Solving: 1, 2, 3, 4 Reasoning and Proof: 1, 2, 3, 4 Communication: 1, 2, 3, 4 Connections: 1, 2, 3, 4 Representation: 1, 2, 3

STORY	LAUNCH	MATH CONCEPT		NCTM STANDARD
		Main	Secondary	STRAND
25)“The M Team Over Vietnam”	Exploring measurement and scale	Main: SOLVE Measurement (exploring scale) Multiplication Facts	Secondary: Numeration (comparison) Estimation Unnecessary Data Write a word problem Two-step problems Journal Entry	Number and Operations: 1, 2, 3 Measurement: 1, 2 Algebra: 1, 2, 3, 4 Problem Solving: 1, 2, 3, 4 Reasoning and Proof: 1, 2, 3, 4 Communication: 1, 2, 3, 4 Connections: 1, 2, 3, 4 Representation: 1, 2, 3
26)“The M Team on the Moon”	Discovering square units	Main: SOLVE Measurement (area and perimeter) Geometry (irregular shapes) Multiplication Facts	Secondary: Numeration (\div , $+$), Estimation Unnecessary Data Write a word problem Two-step problems Journal Entry	Number and Operations: 1, 2, 3 Geometry: 1, 4 Measurement: 1, 2 Algebra: 1, 2 Problem Solving: 1, 2, 3, 4 Reasoning and Proof: 1, 2, 3, 4 Communication: 1, 2, 3, 4 Connections: 1, 2, 3, 4 Representation: 1, 2, 3

STORY	LAUNCH	MATH CONCEPT		NCTM STANDARD
		Main	Secondary	STRAND
27)“The M Team Aboard the Exxon Valdez”	Writing expanded numbers	Main: SOLVE Numeration (Place value, expanded notation, standard notation) Multiplication Facts	Secondary: Estimation Unnecessary Data Write a word problem Two-step problems Journal Entry	Number and Operations: 1, 2, 3 Algebra: 1, 2 Problem Solving: 1, 2, 3, 4 Reasoning and Proof: 1, 2, 3, 4 Communication: 1, 2, 3, 4 Connections: 1, 2, 3, 4 Representation: 1, 2, 3
28)“The M Team and Operation Desert Storm”	Building larger numbers	Main: SOLVE Numeration (Expanded notation) Multiplication Facts	Secondary: Estimation Unnecessary Data Write a word problem Two-step problems Journal Entry	Number and Operations: 1, 2, 3 Algebra: 1, 2, 3, 4 Problem Solving: 1, 2, 3, 4 Reasoning and Proof: 1, 2, 3, 4 Communication: 1, 2, 3, 4 Connections: 1, 2, 3, 4 Representation: 1, 2, 3
29)“The M Team Meets George W. Bush”	Rounding smaller numbers	Main: SOLVE Numeration (Rounding) Bar graphs Multiplication Facts	Secondary: Numeration (odd, even) Estimation Unnecessary Data Write a word problem Two-step problems Journal Entry	Number and Operations: 1, 2, 3 Data Analysis 1, 2, 3 Algebra: 1, 2, 3, 4 Problem Solving: 1, 2, 3, 4 Reasoning and Proof: 1, 2, 3, 4 Communication: 1, 2, 3, 4 Connections: 1, 2, 3, 4 Representation: 1, 2, 3

STORY	LAUNCH	MATH CONCEPT		NCTM STANDARD
		Main	Secondary	STRAND
30)“The M Team Meets a Future President”	Review bar graph checklist	Main: SOLVE Bar graphs Multiplication Facts	Secondary: Numeration (+) Estimation Unnecessary Data Write a word problem Two-step problems Journal Entry	Number and Operations: 1, 2, 3 Data Analysis 1, 2, 3 Algebra: 1, 2, 3, 4 Problem Solving: 1, 2, 3, 4 Reasoning and Proof: 1, 2, 3, 4 Communication: 1, 2, 3, 4 Connections: 1, 2, 3, 4 Representation: 1, 2, 3

NUMERATION

1. Understand numbers, ways of representing numbers, relationships among numbers and number systems
2. Understand meanings of operations and how they relate to one another
3. Compute fluently and make reasonable estimates

MEASUREMENT

1. Understand measurable attributes of objects and the units, systems and processes of measurement
2. Apply appropriate techniques, tools and formulas to determine measurements

GEOMETRY

1. Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships
2. Specify locations and describe spatial relationships using coordinate geometry and other representational systems
3. Apply transformations and use symmetry to analyze mathematical situations
4. Use visualization, spatial reasoning and geometric modeling to solve problems

DATA ANALYSIS

1. Formulate questions that can be addressed with data and collect, organize and display relevant data to answer them
2. Select and use appropriate statistical methods to analyze data
3. Develop and evaluate inferences and predictions that are based on data
4. Understand and apply basic concepts of probability

ALGEBRA

1. Understand patterns, relations and functions
2. Represent and analyze mathematical situations and structures using algebraic symbols
3. Use mathematical models to represent and understand quantitative relationships
4. Analyze change in various contexts

Problem-Solving Strand (PS)

1. Build new mathematical knowledge through problem solving
2. Solve problems that arise in mathematics and in other contexts
3. Apply and adapt a variety of appropriate strategies to solve problems
4. Monitor and reflect on the process of mathematical problem solving

Reasoning and Proof (RS)

1. Recognize reasoning and proof as fundamental aspects of mathematics
2. Make and investigate mathematical conjectures
3. Develop and evaluate mathematical arguments and proofs
4. Select and use various types of reasoning and methods of proof

Communication (C)

1. Organize and consolidate their mathematical thinking through communication
2. Communicate mathematical thinking coherently and clearly to peers, teachers and others
3. Analyze and evaluate the mathematical thinking and strategies of others
4. Use the language of mathematics to express mathematical ideas precisely

Connections (CN)

1. Recognize and use connections among mathematical ideas
2. Understand how mathematical ideas interconnect and build on one another to produce a coherent whole
3. Recognize and apply mathematics in contexts outside of mathematics

Representation (R)

1. Create and use representations to organize, record and communicate mathematical ideas
2. Select, apply and translate among mathematical representations to solve problems
3. Use representations to model and interpret physical, social and mathematical phenomena