Full Activities Menu

Whether you already know the activity you want or need to do some browsing, this à la carte menu will help you quickly find what you’re looking for (whether online or in this book)! This year’s activities start on pg. 8.

How to Find an Activity

All past and current National Math Club activities are available at www.mathcounts.org/clubleaders. To make it easier for you to find the activity you need online, we have divided the full list of club activities into the following categories:

- **Hands-On + Interactive**
- **Skills-Focused**
- **Themed + Holiday-Based**

Within each category the activities are listed alphabetically. We have briefly described each activity and included symbols to indicate if a particular activity incorporates technology (**T**), is easy to set up (**☼**), and/or requires no photocopies (**ȼ**).

**Hands-On + Interactive Activities**

A-maze-ing Fractions (pg. 9)  
New: navigating a fun maze while practicing arithmetic with fractions

Action Math Baseball (pg. 33)  
New: exploring probability and statistics by using baseball scenarios in this two-part activity

Alphabet Soup  
From 2014-15: practicing area and proportional reasoning with letters of the alphabet

Buzzer Blitz  
From 2007-08: hosting just-for-fun Countdown Rounds using past Competition Series materials

Calculator Coding (pg. 27)  
New: exploring the basics of coding by creating a simple program on a TI calculator

Club CryptoGRAPHer (pg. 16)  
From 2014-15: using the Desmos online graphing calculator to “decode” and create secret messages

Connect the Dots (pg. 21)  
New: a familiar drawing activity where students use their math skills to manipulate points on a coordinate plane

The Counting Bee  
From 2013-14: boosting mental math skills with a fun, exciting counting contest

Create As You Pass Go!  
From 2012-13: following the Engineering Process to create a fun, original board game

Cube Poster  
From 2007-08: practicing 3-D geometry with a fun hands-on activity

Deep Sea Duel  
From 2011-12: playing a math game, either against a classmate or online against Okta the Octopus

Dice Dice Baby  
From 2014-15: reviewing mental math, computation and more with 6 fun, creative dice games

Enlarging Art  
From 2007-08: using proportions to enlarge photos of the students’ school mascot

Even Taller Towers  
From 2015-16: practicing engineering skills to construct a pipe cleaner tower

Fence Me In  
From 2015-16: calculating perimeter and area with a fun strategy game

Five Regular Geosolids  
From 2009-10: creating 5 3-D geometric solids using straws and pipe cleaners
Form & Function
From 2009-10: applying geometry and ratios to the construction of ship hulls

Free Ride Game ☼
From 2010-11: exploring fractions by using the context of bicycles and gear ratios

Fun Problem-Solving Techniques
From 2007-08: creative, hands-on strategies for tackling 4 types of challenging problems

Function Battleship T ☼
From 2015-16: using the Desmos online graphing calculator to “sink” battleships by graphing

Getting Bigger or Smaller? ☼
From 2012-13: completing a maze to practice decimal operations and their effect

GRAPHic Art T ☼
From 2013-14: using the Desmos online graphing calculator to draw pictures

I Heart Math Club!
From 2013-14: 4 fun and engaging card games that review mental math, computation and inference

KenKen, Vol. 1 & 2 ☼
From 2011-13: 22 sudoku-style puzzles using logic skills and number sense

Let's Make a Deal an Educated Guess ☼
From 2013-14: using probability to test the classic Monty Hall Problem from Let's Make a Deal

M&Ms® ☼
From 2007-08: practicing statistics and probability... and then maybe eating the data at the end

Math BINGO
Reboot from 2014-15: a mathematical twist on a classic game with 4 complete BINGO game sets

Math Messengers (pg. 53) ☼
Reboot from 2014-15: a mathematical version of the Telephone Game with 8 total game cards

Math Gauntlets
From 2015-16: reviewing square numbers, special triangles and more with a memorization game

Measure Your Feet Day, Jan. 23rd
From 2008-09: practicing measurement and proportions in a fun, hands-on way

Number Crunching T
From 2014-15: using Tableau software to analyze data sets about cereal in a creative, interactive way

Number Puzzles (pg. 43) ☼
New: building problem-solving skills with a fun, mathematical spin on crossword puzzles

Odds Are Good
From 2015-16: calculating probability and then conducting real-life trials to test the results

A Picture's Worth A Thousand Math Problems ☼
Reboot from 2015-16: a new take on paint by numbers where students solve problems to create art

Pinwheel Power ☼
From 2010-11: creating an original pinwheel and learning about the math behind it

Press Play T ☼
From 2013-14: watching, critiquing and producing Math Video Challenge videos

Product Game ☼
From 2009-10: BINGO-style game involving a list of factors and a grid of products

Proofigami ☼
From 2015-16: understanding and proving the Pythagorean Theorem using origami

Reflection Battle (pg. 71) ☼
From 2009-10: practicing symmetry with a fun, easy-to-create game

Rules Game ☼
From 2007-08: creating rules to a math game that other students have to solve

Shake It Up ☼
From 2009-10: applying actuarial skills to create scatterplots of earthquake data

Smallest Integer Game ☼
From 2012-13: playing a fun game and then analyzing the results

The Solve-A-Thon Game ☼
From 2014-15: a game of chance and skill to carry out a just-for-fun fundraiser

Sum Fun Tournament (pg. 61)
Reboot from 2009-10: game with fun problems to solve and constantly changing teammates and opponents

The Symmetry Championship
From 2007-08: practicing vertical, horizontal and line symmetry with a challenging game

Talk Like a Pirate Day, Sep. 19th
Reboot from 2014-15: going on a treasure hunt with a set of pirate-themed math problems

ThinkFun® Strategy Game – Chocolate Fix T
From 2011-12: practice problem-solving while fulfilling orders in a chocolate shop

ThinkFun® Strategy Games – Hounds & Hare and Swag
From 2010-11: 2 strategy games to strengthen problem-solving skills
Skills-Focused Activities

A-maze-ing Fractions (pg. 9) ✤ ✦
New: navigating a fun maze while practicing arithmetic with fractions

Action Math Baseball (pg. 33)
New: exploring probability and statistics by using baseball scenarios in this two-part activity

Algebra Meeting ☼
From 2009-10: problem set covering a variety of algebra and pre-algebra topics

Alphabet Soup
From 2014-15: practicing area and proportional reasoning with letters of the alphabet

Calculator Coding (pg. 27) ☼
New: exploring the basics of coding by creating a simple program on a TI calculator

Connect the Dots (pg. 21) ☼
New: a familiar drawing activity where students use their math skills to manipulate points on a coordinate plane

The Counting Bee ☼ ☦
From 2013-14: boosting mental math skills with a fun, exciting counting contest

Cube Poster ☼
From 2007-08: practicing 3-D geometry with a fun hands-on activity

Enlarging Art ☼
From 2007-08: using proportions to enlarge photos of the students’ school mascot

Eye-Catching Symmetry ☼
From 2013-14: identifying line and rotational symmetry in common company logos

Faster Rate × Less Time ☼
From 2013-14: MATHCOUNTS Mini exploring new ways to solve d = r × t problems

Fence Me In ☼
From 2015-16: calculating perimeter and area with a fun strategy game

Five Regular Geosolids
From 2009-10: creating 5 3-D geometric solids using straws and pipe cleaners

Form & Function
From 2009-10: applying geometry and ratios to the construction of ship hulls

Free Ride Game ☼
From 2010-11: exploring fractions by using the context of bicycles and gear ratios

Fun Number Theory ☼
From 2010-11: a fun problem set covering a number of topics, but with a focus on number theory

Fun Problem-Solving Techniques
From 2007-08: creative, hands-on strategies for tackling 4 types of challenging problems

Function Battleship ☼
From 2015-16: using the Desmos online graphing calculator to “sink” battleships by graphing

Getting Bigger or Smaller? ☼
From 2012-13: completing a maze to practice decimal operations and their effect

I Heart Math Club!
From 2013-14: 4 fun and engaging card games that review mental math, computation and inference

KenKen, Vol. 1 & 2 ☼
From 2011-13: 22 sudoku-style puzzles using logic skills and number sense

Let’s Make a Deal an Educated Guess ☼
From 2013-14: using probability to test the classic Monty Hall Problem from Let’s Make a Deal

Logic Challenges ☼
From 2010-11: problem set of logic puzzles with topics ranging from counting to spatial reasoning

M&Ms® ☼
From 2007-08: practicing statistics and probability... and then maybe eating the data at the end

Making Your Money Grow ☼
From 2015-16: building financial literacy with an activity from PricewaterhouseCoopers LLP

Math Gauntlets
From 2015-16: reviewing square numbers, special triangles and more with a memorization game

MATHCOUNTS Minis: Arithmetic Sequences ☼
From 2010-11: explaining how to solve problems involving arithmetic sequences

MATHCOUNTS Minis: Counting Techniques ☼
From 2011-12: exploring new ways to approach different counting problems

Mathemagicians (pg. 17) ☼
New: practicing writing algebraic equations to reveal the secret behind a magic trick

Measure Your Feet Day, Jan. 23rd
From 2008-09: practicing measurement and proportions in a fun, hands-on way

Number Crunching ☼
From 2014-15: using Tableau software to analyze data sets about cereal in a creative, interactive way

Number Lines & Coordinate Planes ☼
From 2009-10: problem set about number lines and coordinate planes covering numerous topics

Number Puzzles (pg. 43) ☼
New: building problem-solving skills with a fun, mathematical spin on crossword puzzles
Odds Are Good
From 2015-16: calculating probability and then conducting real-life trials to test the results

Overlapping Photos ☼
From 2011-12: using trigonometry to solve a problem set involving overlapping photos of airplanes

Pascal's Triangle ☼
From 2013-14: introduction to understanding and using Pascal's Triangle

Past Math Challenges ☼
From 2007-13: 6 10-question and 34 5-question problem sets covering numerous skills

Patterns ☼
From 2007-08: fun problem set with a variety of patterns commonly found in math problems

Patterns All Around ☼
From 2013-14: learning new strategies for solving problems involving patterns

Portions of Portions ☼
From 2009-10: practicing portions of portions, from fractions to percents

Probability Meeting ☼
From 2009-10: problem set to practice and apply knowledge of probability

Product Game ☼
From 2009-10: BINGO-style game involving a list of factors and a grid of products

Proofigami ☼
From 2015-16: understanding and proving the Pythagorean Theorem using origami

Proportional Reasoning ☼
From 2010-11: problem set focused on measurement and proportions

Reading Charts & Graphs ☼
From 2009-10: problem set challenging students to interpret a variety of methods of displaying data

Reflection Battle ☼
From 2009-10: practicing symmetry with a fun, easy-to-create game

Rubik's Cube ☼
From 2011-12: drawing 3-D geometric shapes (including a Rubik's Cube) to scale

Rules Game ☼
From 2007-08: creating rules to a math game that other students have to solve

Secret Writing
From 2010-11: using cryptography to write secret messages. Club leaders beware!

Shake It Up ☼
From 2009-10: applying actuarial skills to create scatterplots of earthquake data

Smallest Integer Game ☼
From 2012-13: playing a fun game and then analyzing the results

Story of a Graph ☼
From 2012-13: matching graphs to real-life scenarios and creating original graphs

The Symmetry ChampiOnship
From 2007-08: practicing vertical, horizontal and line symmetry with a challenging game

Tennis Balls ☼
From 2007-08: practicing combinations and permutations with tennis balls (and even ice cream!)

ThinkFun® Strategy Game – Chocolate Fix ☼
From 2011-12: practice problem-solving while fulfilling orders in a chocolate shop

ThinkFun® Strategy Games – Hounds & Hare and Swag
From 2010-11: 2 strategy games to strengthen problem-solving skills

Tree Diagrams ☼
From 2011-12: problem set about tree diagrams to understand different outcomes of given events
Themed + Holiday-Based Activities

30 with 30 for 30
From 2012-13: 30 problems with the number 30 to celebrate the 30th Anniversary of MATHCOUNTS

Bake Cookies Day, Dec. 18th
From 2008-09: a cookie-themed problem set that will have your students hungry for more

Defy Superstition Day, Sep. 13th
From 2008-09: a set of problems that all center around common superstitions

Dictionary Day, Oct. 16th
From 2008-09: an alphabet-themed problem set covering a variety of topics

Games & Puzzles Month, November
From 2008-09: a set of problems that include mazes, game boards and other puzzles

Halloween, Vol. 1 & 2
From 2007-09: Spooky, scary, fun Halloween-themed math problems

Measure Your Feet Day, Jan. 23rd
From 2008-09: practicing measurement and proportions in a fun, hands-on way

Opposite Day, Jan. 25th
From 2008-09: practicing inverse operations as “doing the opposite”

Pi Day, Mar. 14th
From 2007-08: in honor of Pi Day, a problem set with questions that all use $\pi$

Piggy Bank Day, Nov. 2nd
From 2008-09: a problem set in which students “earn money” for each question answered correctly

Read a Book Day, Sep. 6th
From 2008-09: a literature-themed problem set featuring references to classic novels

St. “Pi”tricks Day
From 2008-09: a combination of Pi problems and St. Patrick’s Day problems for 3/14 – 3/17

Talk Like a Pirate Day, Sep. 19th
Reboot from 2014-15: going on a treasure hunt with a set of pirate-themed math problems

Valentine’s Day
From 2007-09: sweet, lovely, fun Valentine’s Day-themed math problems