

Math Toys, Hobbies & Games

Many children have hobbies, and most enjoy playing games with their families. One way families can do more math together is to play games that involve strategic thinking and reasoning, and point out the mathematics in them. Families can also spend time together exploring mathematical materials like blocks and puzzles, and collections of things like buttons or baseball cards.

Mathematical Toys and Hobbies

Building blocks

Collections of things (stamps, coins, baseball cards, buttons, etc.)

Building toys (Geofix, Polydron, Hoberman, Expandagon, Lincoln Logs, Erector Sets, Lego, K'Nex, Capsela, Gears, Jovo, Klikko, Da Clip, Tinker Toys, Kapla, TC Timber, Zome)

Models

Origami and paper folding

2-D and 3-D Puzzles

Sewing

Here are games that encourage mathematical thinking:

Backgammon

A game of strategy. With each roll of the dice a player must choose from numerous options for moving his checkers and anticipate possible counter-moves by the opponent.

Blokus

An award-winning strategy game for the whole family.

Checkers/Chess:

Great games for developing skill with logical reasoning.

Computer games such as *The Logical Journey of the Zoombinis series* and *The Strategy Challenges of the World series*.

Connect Four

Cribbage

A wonderful card game played on a pegged board that develops skill in adding series of small numbers. The game is enjoyable for children of all ages.

Dominoes

A game of strategy and numbers that children as young as 4 years of age can play as a number recognition game. Yet the regular game of dominoes is challenging for adults as well.

Equate or Equate Junior: the Equation Thinking Game (2-4 players, ages 8+/ 6+)

A game for reinforcing computation with whole numbers, decimals, and fractions. Create equations crossword style.

Go Fish

Develops young children's matching and pairing skills.

Katamino

A building game that helps children understand basic concepts of geometry with multiple puzzles featuring solutions that can be extremely simple or extremely difficult

Krypto

The task is to find a way to combine five number cards using the four basic arithmetic operations to yield the objective value. Available online at

<http://illuminations.nctm.org/ActivityDetail.aspx?ID=173>

Mancala

A game of strategy and numbers that children as young as 4 years of age can play as a number recognition game. Yet the regular game of dominoes is challenging for adults as well.

Mastermind

A game of logic enjoyed by both children and adults. Look for a version of Mastermind for younger children ages 6 and up. Available online at

http://nlvm.usu.edu/en/nav/frames_asid_288_g_1_t_1.html?open=instructions&from=category_g_1_t_1.html

Monopoly

Qwirkle (2-4 players, ages 6+)

A visual strategy game where scrabble meets dominoes.

Set: The Family Game of Visual Perception

A card game of logic and visual perception that can be enjoyed by the whole family (ages 6 to adult). Adults, be forewarned that it can be humbling to play this game with youngsters.

24 Game (comes in many versions: Addition/Subtraction, Multiply/Divide, Single Digits, Double Digits, Integers, Variables, Fractions/Decimals, Algebra/Exponents, Factors/Multiples)

Find a mathematical way to reach 24.

Tangoes (1-2 players, ages 5+)

Modern version of the classic Chinese Tangrams puzzle. A game that focuses on spatial relationships and that challenges the whole family, young and old alike. Online Tangrams at

http://nlvm.usu.edu/en/nav/frames_asid_268_g_1_t_3.html?open=activities&from=category_g_1_t_3.html

Uno (2+ players, ages 7+)