

Equals: The Game of Strategy for the Basic Facts



Brain research on how children store facts in long term memory has shown the need for a low-stress environment, friends, and fun with games involving the basic facts. Equals was designed with these needs in mind.

Same Facts. New Strategies. Less Stress.

Equals is a game of strategy where players work in teams to make choices about the math facts they will use as they roll polyhedron dice and turn wooden cubes on dowel rods to clear the board and win.

Math principles such as the **commutative property** of addition and multiplication, **least common multiple**, and **greatest common factor** are emphasized as children play Equals.

Cooperation over Competition...All teams have an equal chance of winning and both teams can win! Players get to make choices about the facts they use. Each game lasts approximately 10 minutes, but the facts these children store in long term memory will stay with them as they build number sense and practice their addition, multiplication, subtraction, and division facts.



Ordering Information
Equals Price: \$34.95
For orders of 10 or more:
\$33.95
Custom Dice Price:
(set of 5) \$5.00

Learning by Design
160 Brandenburg Way
Fayetteville, Ga. 30215
(678) 481-2456

Learning by Design
www.playequals.com
info@playequals.com

Produced by:



Made in the
U.S.A.



Rainbow Number Puzzles

U.S. Patent Pending



Making connections between the **number of objects** and the **number symbol** is an important step in the development of numeracy. The Rainbow Number Puzzles were designed to make it easy for children to visualize the number counted within the symbol.

Same Concepts. **New Strategies.** More Meaning.

VISUAL REPRESENTATION: One has one piece, two has two pieces, and three has three pieces. These puzzles can be used to develop counting within the number symbols. If a child does not remember the name of the number symbol, the child can count the number of pieces to recall the name of the number.

At an early age, a child can put the puzzles together to develop readiness and familiarity with the meaning of each number symbol. The zero comes without a piece. The word name of each number is engraved on the puzzle for **language** development.

On the back of the puzzle pieces, a related **concept** is engraved. If all the puzzle pieces are jumbled, one can look on the back of each piece to identify the puzzle it goes with. For example, on the back of the 2 pieces, there are two eyes. On the back of the 5 pieces, there is an imprint of a hand with five fingers.

As students see the whole number and a visual of the sum of the pieces within that whole number, they will be able to see the **meaning of each number symbol** by learning enhanced with the Rainbow Number Puzzles.



Ordering Information

Set Price (0-9): \$149.50

Set Shipping: \$15.70

Individual Puzzle Prices:

0, 1, or 2: \$13.70

3, 4, or 5: \$14.86

6, 7, 8, or 9: \$ 16.93

Standard Size: 8X10

Discounts available for large orders.

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Quadrilateral Pieces: A Geometry Puzzle

U.S. Patent Pending

LEARN GEOMETRY
THROUGH PLAY

Go beyond tangrams...
construct and create with
right, obtuse, and acute
angles. Build
quadrilaterals, discover
the Pythagorean theorem
and solve problems.



Geometry. Problem Solving. Challenge.

COMMON CORE CURRICULUM: The puzzle consists of four pieces, each a congruent quadrilateral with blue and green sides. Students can engage in authentic problem solving with right, acute and obtuse angles.

They can explore flips, turns, rotations, supplementary angles and symmetry as they **construct** several different kinds of **quadrilaterals**. They will explore the **properties of quadrilaterals** including the trapezoid, rectangle, parallelogram, and square as they evaluate their own created solutions.

Students develop spatial sense informally as they use the pieces to create a variety of designs with the blue and green sides of the puzzle pieces. Students can **communicate** their designs using geometric terms so that other students can try to recreate them. In the process, **vocabulary** related to geometry can be learned and reinforced through frequent use.

Ordering Information

Set Price: \$6.95

For orders of 10 or more:
\$6.50

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STAR 10



Rainbow Numbers, Tally Marks, Dot Cards and Ten Frames

U.S. Patent Pending



Developing numeracy involves being able to count and recognize a number in different ways. Playing with a deck of STAR 10 Cards requires students to count and match the numbers at every step.

Same Games. New Cards. Numeracy.

Students learn that **10 is the STAR** of our number system as they play with a deck of STAR TEN © cards. Instead of hearts, spades, clubs, and diamonds, these cards have **Ten Frames, Tally Marks, Rainbow Numbers ©, and Dot Cards!** No queens, kings, aces or jacks, only ALL the digits that make up our entire number system... 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, and the STAR number 10!

Every star has **10 sides**, so the top of each card in the deck has a star and the number ten on it. Children can play war, memory go fish, and odd man out. In playing these games, they will **build number sense**. Skills in counting, identifying numbers, comparing and ordering numbers will increase with these traditional games.



Ordering Information

Deck Price: \$10.95

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Liquid Measure Fractions

A 3-Dimensional Model for Cups, Pints, Quarts, Half Gallons, and Gallons

U.S. Patent Pending



Because the model fits together as one, it is easy for the students to see the parts (cups, pints, quarts, and half gallons) and the whole (gallon) at the same time. Brain research on part-to-whole thinking supports building these types of relationships as effective learning tools.

Same Concepts. **New Models.** Understanding.

Students can play with cups, pints, quarts, half gallons, and gallon containers from our recycling bin as they learn about liquid measure. But if we really want students to **SEE the relationships** among the units we will use **Liquid Measure Fractions**.

The **base unit** in Liquid Measure Fractions is a **cup** that is made into the shape of a **cube**. A cup of water fits inside exactly. Two cup cubes fit inside the pint, a rectangular prism that holds exactly one pint of water. Two pints can be embedded into a quart. Two quarts are also embedded inside a half gallon, a larger rectangular prism. Two half gallon units fit exactly inside the larger gallon unit. Each container holds exactly the right amount of water.

If students have these **models**, they will be able to make **conversions** among units with ease. The **three dimensional** nature of the model enables students to understand that these units measure **capacity**. The connections to **volume** become clear as the students can also measure the length, width, and height of the containers.

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Set Price: \$49.95

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U.S. Patent Pending



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Ordering Information

Deck Price: \$10.95

Presently taking orders.

When we have received enough pre-orders, we produce the required quantity.

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