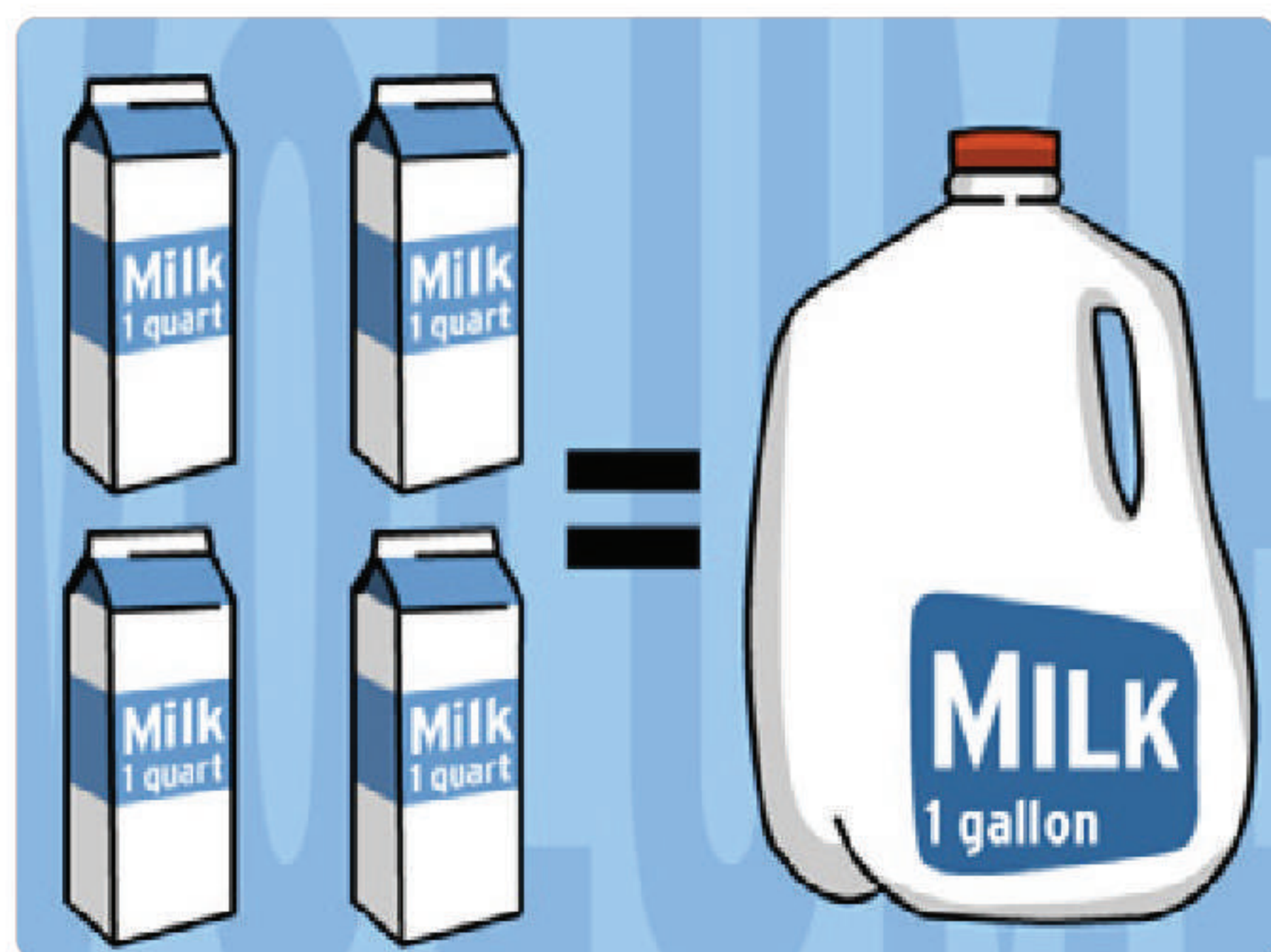


Brain POP

Summer School Toolkit

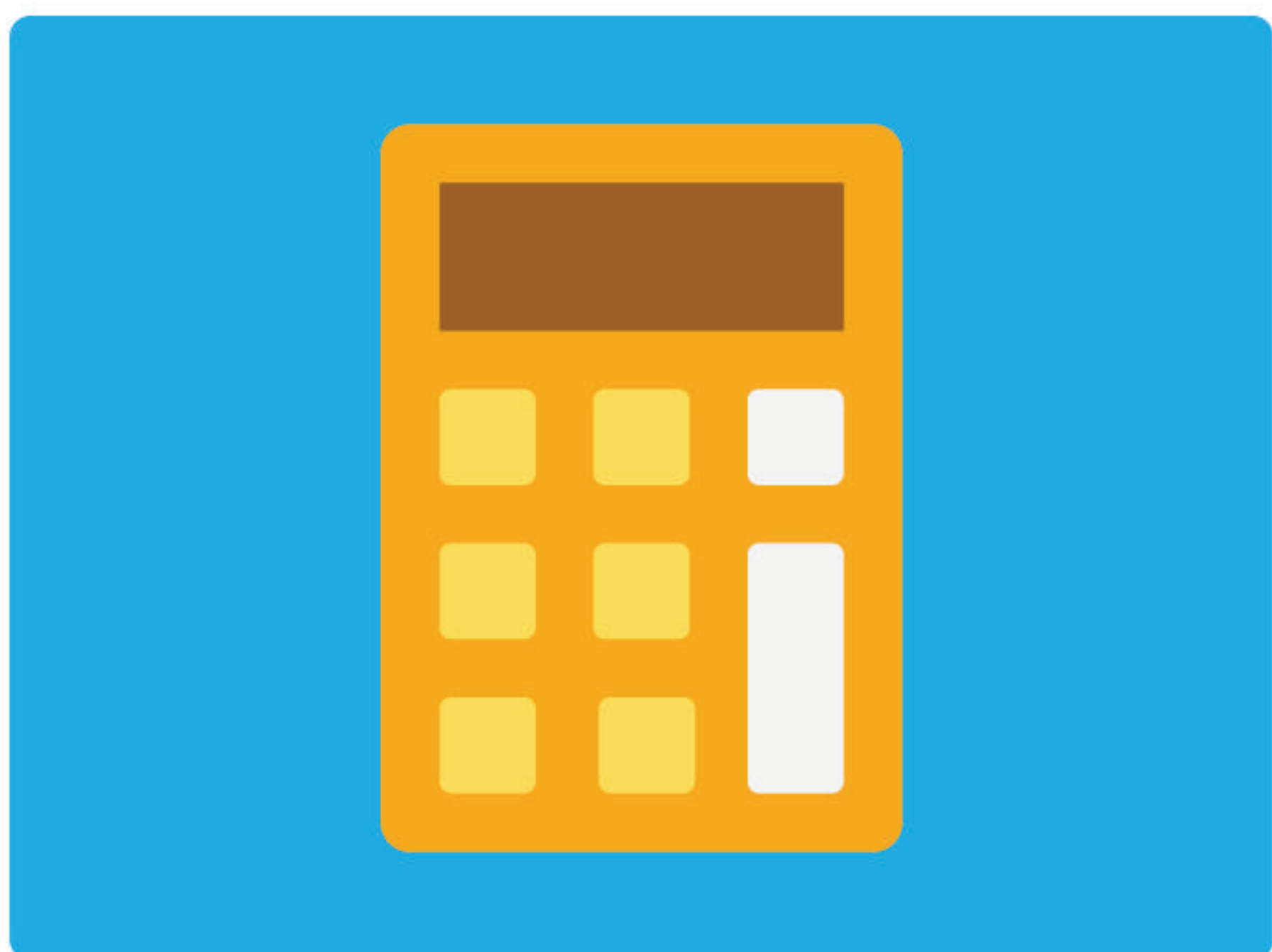
Math in action



MAKE MATH REAL

“When am I ever going to use this?” No doubt your child has asked you this question many times! This summer help them find answers to this question by exploring BrainPOP’s [Practical Math](#) unit. Or, check out BrainPOP Jr. movies that focus on math kids use every day, such as [Time](#) and [Money](#). Watch the movies with your child to see how the ever whimsical Moby applies math skills in real life, from estimating a budget and splitting a bill to using statistics for purchasing decisions, and much more!

After watching a movie, take a deep dive into the topic by playing a BrainPOP game, taking a quiz, and even making your own BrainPOP-style movie about the topic.



THE NATURE OF MATH

Nature is bursting with math and summer is a great time to discover its many forms! You may want to watch the BrainPOP movie [Fibonacci Sequence](#) to find out how and why this sequence shows up in nature. Then take a hike, stopping along the way to notice the many epic examples of math in all its natural glory. Here are some things you may see. Keep a list or take pictures along the way:

- Radial symmetry in butterflies, leaves, and spiderwebs
- Fibonacci sequence in flowers, such as a sunflower
- Honeycomb shape— (according to mathematicians, a honeycomb’s shape offers the perfect balance of strength and space required for honey storage)
- Patterns in rainbows, markings on animals’ coats, ripples in a pond



GET YOUR MATH ON WITH GAMEUP!

Put your math smarts to the test by playing BrainPOP and BrainPOP Jr. math games throughout the summer. Here are some of our faves:

BrainPOP

[Cat Insanity](#)

Explore the basics of credit and debt with this free financial game where you feed cute, hungry cats. But watch out—they multiply quickly!

[Math Snacks: Agrinautica](#)

This flexible, sandbox-type game features pre-algebra skills, including mathematical expression-building and order of operations.

[Math Snacks: Creature Caverns](#)

Explore creepy, spooky, or scary caves that are home to creatures with various numbers of eyes, horns, brains, and limbs.

[Math Snacks: Curse Reverse](#)

Greedy explorers have stolen treasures from seven ancient sites, and cursed the world! Find the treasure and return it to reverse the curse.

[Money Magic](#)

Help ambitious magician Enzo manage his budget, reach his savings goal, and take his show to Vegas!

[Shady Sam](#)

Learn the hidden “tricks of the loan trade” as you play the role of a loan shark and try to maximize your profits.

[Ratio Rumble](#)

Battle your opponents by making powerful potions using ratios.

BrainPOP Jr.

[Addition Blocks](#)

Addition Blocks Test your addition skills and speed! Destroy falling sum blocks by clicking on connected digit blocks. Add fast, or the sum blocks will stack up.

[Battleship Numberline](#)

Collect stars and explode paper ships by estimating their positions on a number line.

[Monster School Bus](#)

Combine little monsters to make as few trips as possible as you drive around the neighborhood on your monster school bus!

[Pearl Diver](#)

Grab pearls by diving at the proper place on a number line.

[Sortify: Basic Adding](#)

Add up numbers to reach the bin’s sum.

[Teachley Add & Subtract](#)

Use math strategies to help the addimals and subtractimals save their world.



FAMILY TRIP

Taking a trip this summer? Use the opportunity to practice key math skills. Before heading out, have your child use an atlas to calculate how many miles you'll drive to your destination. Figuring out your car's fuel efficiency is another real-life math challenge. To solve this problem, your child will use a variety of operations: adding the cost to fill the tank over the course of the trip; dividing miles you drive per gallon of gas; multiplying cost of a fill-up based on miles you plan to drive. After you arrive at your destination, challenge your child to figure out your average speed.

Younger ones can get in on the traveling math fun, too! While on a road trip, challenge them to count everything, from trucks and cars to trees and traffic lights! Continue the counting fun when you reach your destination by watching the BrainPOP Jr. [Counting On](#) movie.

RAINY DAY GAME PLAY

What's better than a board game on a rainy summer day? Not only are games just plain fun but many of the most popular ones sharpen kids' math smarts without them even noticing! Here are examples of classic games and related math concepts. Before you play, check out a related BrainPOP movie on the math topic.

Basic Operation

Games

Monopoly, Life, Payday

BrainPOP

Unit: [Numbers and Operations](#)

BrainPOP Jr.

Unit: [Addition and Subtraction](#)

Unit: [Multiplication and Division](#)

Patterns & Geometry

Games

Sequence, Blokus, Geoshapes, Qwirkle

BrainPOP:

[Geometry and Measurement](#)

BrainPOP Jr.

[Geometry](#)

Coordinate Graphing

Game

Battleship

BrainPOP

[Coordinate Plane](#)

BrainPOP Jr.

[Line Graphs](#)

Logic & Strategy

Games:

Clue, Stratego, Sudoku, Chess, Checkers, Backgammon, Othello, Mancala, Connect 4

BrainPOP

[Critical Reasoning](#)

Design and construct your own board game! Invite your friends over to play!



CALLING ALL COOKS!

From measuring to timing, math is a main ingredient for cooking! Designate one night per week this summer when you and your child make a recipe together. Let your child do the math heavy lifting. For example, if you are doubling a recipe, encourage your child to figure out which operation and calculate the amount you need of each ingredient.

Brush up on measuring skills by exploring the BrainPOP topics [Customary Units](#), [Metric Units](#), and [Measuring Matter](#). For younger kids, review these BrainPOP Jr. topics: [Cups, Pints, Quarts, Gallons](#); [Grams and Kilograms](#); [Ounces, Pounds, and Tons](#); and [Temperature](#).



SHOP 'TIL YOU DROP

Ok, maybe not til you drop! But seriously, shopping is a great way for your child to brush up on real-life math skills. Whether at the supermarket comparing prices of apples or calculating the percentage off on those cool new kicks, challenge your child to do the calculating for you. Engage your child with prompts such as, "If the grapes are \$2.49 per pound and we buy 6 ounces, how much will they cost?" or "If the jeans are 10% off the price, how much do they cost?"

BATTER UP!

Take your kid out to a ballgame this summer to see math in action. From speed of a pitch to batting averages, point out that experts use this data to evaluate players performance which affect their rankings. Bring math to life by using a scorecard during the game. After the game, keep the fun and learning going by looking up favorite players and calculating their statistics.

Still got baseball on the brain? Watch BrainPOP's [Baseball](#) or BrainPOP Jr.'s [Jackie Robinson](#) movie. Your child can also make a [BrainPOP-style movie](#) about baseball—or any sport—to share with family and friends.

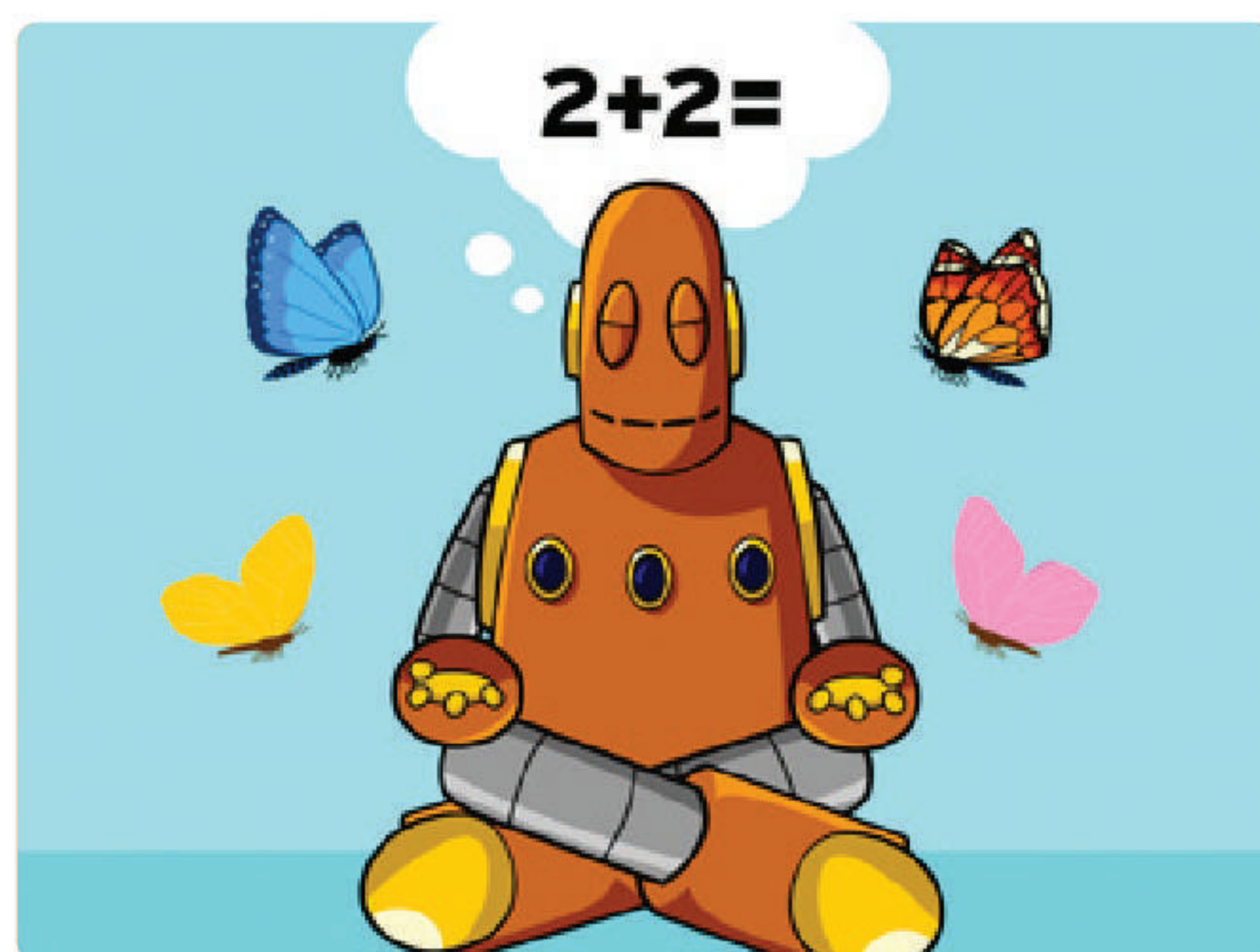




LAUNDRY SORT

Bring some math fun to the ho-hum chore of laundry. Here are some ideas:

- After pairing up socks, skip count by two to figure out the total number of socks in the laundry.
- Organize laundry by family member then practice comparing numbers by calculating who has the most and least. You can also do this by categorizing by color to see what colors your family wears most and least.
- Point out symmetry while folding laundry. When folding a shirt, for example, show how the sleeves line up together and review that the fold is called a line of symmetry.
- Practice time elapse skills by having your child take note of the time you turn on the washer or dryer. Tell how long the laundry will take and have your child calculate what time it will be ready.
- When the cycle is done, they can figure out if the calculations were correct.



BOOSTING MATH CONFIDENCE

A simple way to boost your child's math confidence is how you talk about math. Here are some tips:

- DO point out the many everyday ways we use math (e.g., measuring for recipes, paying a bill, calculating tips)
- DO activities together that require using math, such as cooking or shopping.
- DON'T talk about math as easy or hard.
- DON'T say "I don't like math" or "I've always been bad in math." They may take this to mean that math skills are inheritable.

