Make After-School Count!

Bedtime Math presents Crazy 8s, an after-school program to help schools launch recreational math clubs. We offer 24 weeks of activities packaged in three 8-week kits for Grades K-2 and 3-5. Unlike competitive clubs that appeal to a select few, our activities – like Glow-in-the-Dark Geometry and Beach Ball Party – can appeal to any kid. We're making math club the cool thing to do after school!

Our goal with Crazy 8s is nothing short of overhauling our country's culture around math. While many Americans dislike or even fear math, we hope to raise a next generation who loves numbers.

Here's how Crazy 8s fulfills that mission:

- ★ It's collaborative: The activities get kids working together, building together, running and jumping together, so they can bond over math in a whole new way.
- ★ It's hands-on: Our lively get-up-and-move activities explore the math behind kids' favorite things, like treasure hunts, card games, puzzles – even secret codes!
- ★ It's proven: A study by Johns Hopkins University found Crazy 8s reduced kids' math anxiety after only 8 weeks in the club. We hear from many of our teacher coaches that students participate more in the classroom because of Crazy 8s.

Celebrating 10 years of over-the-top math fun enjoyed by more than 300,000 kids nationwide.

Start a Club Today!
crazy8sclub.org

continued...

Cost-Sharing Contribution

As part of our charitable mission, Bedtime Math heavily subsidizes the overall cost of each Crazy 8s club, valued at more than $400.

We ask our Crazy 8s partners to contribute $128 for each 8-week kit. That's just $1 per kid, per week for a club of 16 kids. Schools that commit to 16 or 24 weeks upfront receive a bundled discount: $198 for kits 1 and 2, or $268 for all 3 kits.

Federal Title I and Title IV funding can be used for this educational resource.

Kit Contents

Our kits provide most of the materials needed to run a club, along with math-y take-home items for the kids. Coaches need to provide a few supplies like scrap paper and scissors. To make Crazy 8s the best it can be, our online Coaches' Area includes step-by-step directions, how-to videos and other resources.

Honor Code

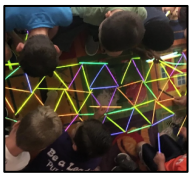
All Crazy 8s partners must apply online, then do a brief phone call with one of our Crazy 8s Ambassadors. During this call, we'll review our Honor Code:

- ★ Clubs must meet weekly either before or after school, ideally for 8 consecutive weeks. We'll also allow clubs to meet twice weekly or daily for a 1-week camp.
- ★ Each club should include at least 12 kids, but no more than 16 kids.
- ★ Kids must be grouped Grades K-2, Grades 1-3 or Grades 3-5. Clubs can serve a single grade or a pair of grades within those ranges, but they should not be expanded beyond them.

To apply for a kit, visit crazy8sclub.org!

Crazy 8s math club

Weekly Sessions
Season 1



Glow-in-the-Dark Geometry

Glowsticks bring repeating patterns and 3D shapes to life in kids' hands!

Grades K-2: 2-D geometric shapes; Counting; Pattern recognition; Building a cube

Grades 3-5: 2-D, 3-D geometric shapes; Pattern recognition: shapes, numbers

Beach Ball Party

Forget flash cards. Master math facts with our numbered beach ball!

Grades K-2: Addition and subtraction; Comparison of numbers; Logic: thinking ahead multiple steps

Grades 3-5: Addition and subtraction; Multiplication; Logic: thinking ahead multiple steps

Bouncy Dice Explosion

Roll the dice and do the math to capture the winning Bingo square!

Grades K-2: Addition; Counting; Frequency; Subtraction, Strategic thinking

Grades 3-5: Addition; Multiplication; Order of operations; Simple combinatorials; Simple probability

Crazy 8s Race

Teams speed around a figure 8 racetrack to be the first to 8 x 8!

Grades K-2: Addition; Introduction to the concept of multiples of 8; Number recognition

Grades 3-5: Addition; Multiples of 8; Factoring (bonus)

Piece of Cake

No matter how you slice it, learning fractions is fun when you play with cakes!

Grades K-2: Use manipulatives to add fractions with the same/different denominators; Comparing fractions; Finding common factors; Finding equivalent fractions.

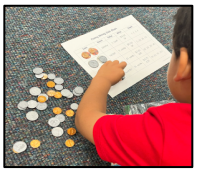
Grades 3-5: Use manipulatives to add fractions with the same/different denominators; Comparing fractions; Finding common factors; Finding equivalent fractions.

Daring Darts

Supersize the math fun in this game of floor darts!

Grades K-2: Addition; Number recognition; Number value comparison; Subtraction

Grades 3-5: Addition; Subtraction; Multiplication



Funny Money

It's payday! Compare coins, race to earn money, then go shopping for a cool puzzle.

Grades K-2: Addition; Basic financial literacy; Skip counting; Valuing, comparing units of money

Grades 3-5: Addition; Subtraction; financial literacy; Skip counting; Valuing, comparing units of money

Spy Training

Solve math-y codes for clues to unlock the hidden spy gear!

Grades K-2: Association between sets; Adding; Subtracting; Number recognition; Pattern recognition

Grades 3-5: Association between sets; Multiplication; Number recognition; Pattern recognition

Glow-in-the-Dark Geometry

Grades K-2

The Big Idea

This week you'll make geometric shapes using glowsticks. First, you'll build triangles and quadrilaterals in different sizes. Then lay the sticks in mystical repeating patterns. Certain shapes work perfectly!

Supplies

In your kit:

- ★ Craft foam balls: 1 bag
- ★ Glowsticks: 150
- ★ Parents' Page postcards: 16 (packed separately)

You provide:

- ★ Nothing this week!

Key Prep

- ★ To save club time, you can unwrap the glowstick tubes before the meeting, but don't crack the sticks until right when you begin the session, for maximum glow. We've provided extra glowsticks in case some are duds.

Room Set-up

- ★ You'll need a room that can get fairly dark. If you're in a space that can't be darkened, don't crack the sticks! Let the kids take home uncracked sticks at the end so they can continue Glow-in-the-Dark Geometry in a dark room or outside at night.

What's the Math?

- ★ 2-D geometric shapes
- ★ Counting
- ★ Pattern recognition
- ★ See last page for Curriculum Standards

Please keep in mind...

We've found that it's good to give kids time to figure out solutions on their own, rather than jumping in and "saving" them. It's more fun for them to wrangle with challenges, and it builds confidence. We'll also be introducing kids to new vocabulary that they may not absorb at first, but they'll make the connection in the classroom!

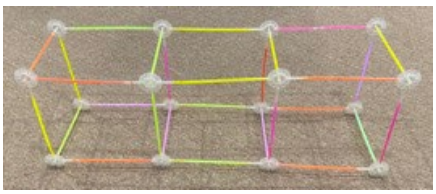
5. Now the kids clear the floor of glowsticks and arrange them in a new lattice of equilateral triangles. You can turn the lights back on while they work, then do the reveal, or leave them off.

   - ? "How many triangles did you make to create your glowing math pattern?" **Discuss**. Watch how kids count – tiptoeing works!
   - ? Once they've started, ask: "What size triangles are you counting?" **Discuss**. Help kids consider bigger triangles!
   - ? "How many sticks did you need to use each time you added one more triangle to the pattern? Show me an example." **Discuss**. Let the kids count! Did they need a total of 3 sticks for every triangle? Why not? Kids will need only 1 or 2 sticks since many triangles borrowed a side from their neighbors.

Do Me a Solid: Build a Cube (20-25 minutes)

"We just learned that flat shapes with straight sides and sharp corners are called polygons. A shape that's not flat is 3-dimensional (or 3-D), like a cube, and those shapes are called ***polyhedrons***. 'Poly' means 'many' and 'hedron' means 'surface.' Let's make some cubes now."

1. Give each pair of kids 12 glowsticks.
2. Ask each pair of kids to build a cube, using the craft foam balls as corners or vertices.
3. Once every pair has assembled 1 cube, ask every pair of kids to join another pair of kids to connect their 2 cubes using 4 extra glowsticks.



   - ? "How many cubes does your new creation have?" **Discuss**. The answer is 3.
   - ? "How many sticks and balls did we use to make our new creation?" **Discuss**. Count together to find that the trio doesn't use 8 balls or 12 sticks per cube, since the cubes share sides and corners! The 3-cube structure uses just 28 sticks and 16 balls.
4. Now the kids can attach all their cubes to make a giant building using more glowsticks. Be sure to dim the lights to see your structure glow! Be creative with your designs!

Extra Challenge (optional)

   - ? "How many cubes does your new building have?"
   - ? "How many sticks and balls did your building use in total?"
   - ? "What happens to the number of balls and sticks used per cube as you make more cubes?" **Discuss**. The number of sticks and balls per cube drops since many cubes are sharing balls and sides. This is called economies of scale. This is why big buildings cost less money per square foot to build than smaller buildings!

A Touch of Class

"People who design and make buildings, like architects, carpenters, construction workers and engineers, use math like this in their jobs every day. One day, you might, too!"

Wrap Up

Give each kid several balls and glowsticks along with a **Parents' Page** postcard, which encourages parents to visit our website for more activities to keep the math fun going at home!

Curriculum Standards

K.G.A.2 Correctly name shapes regardless of their orientations or overall size.

K.G.A.3 Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").

K.G.B.4 Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length).

K.G.B.5 Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.

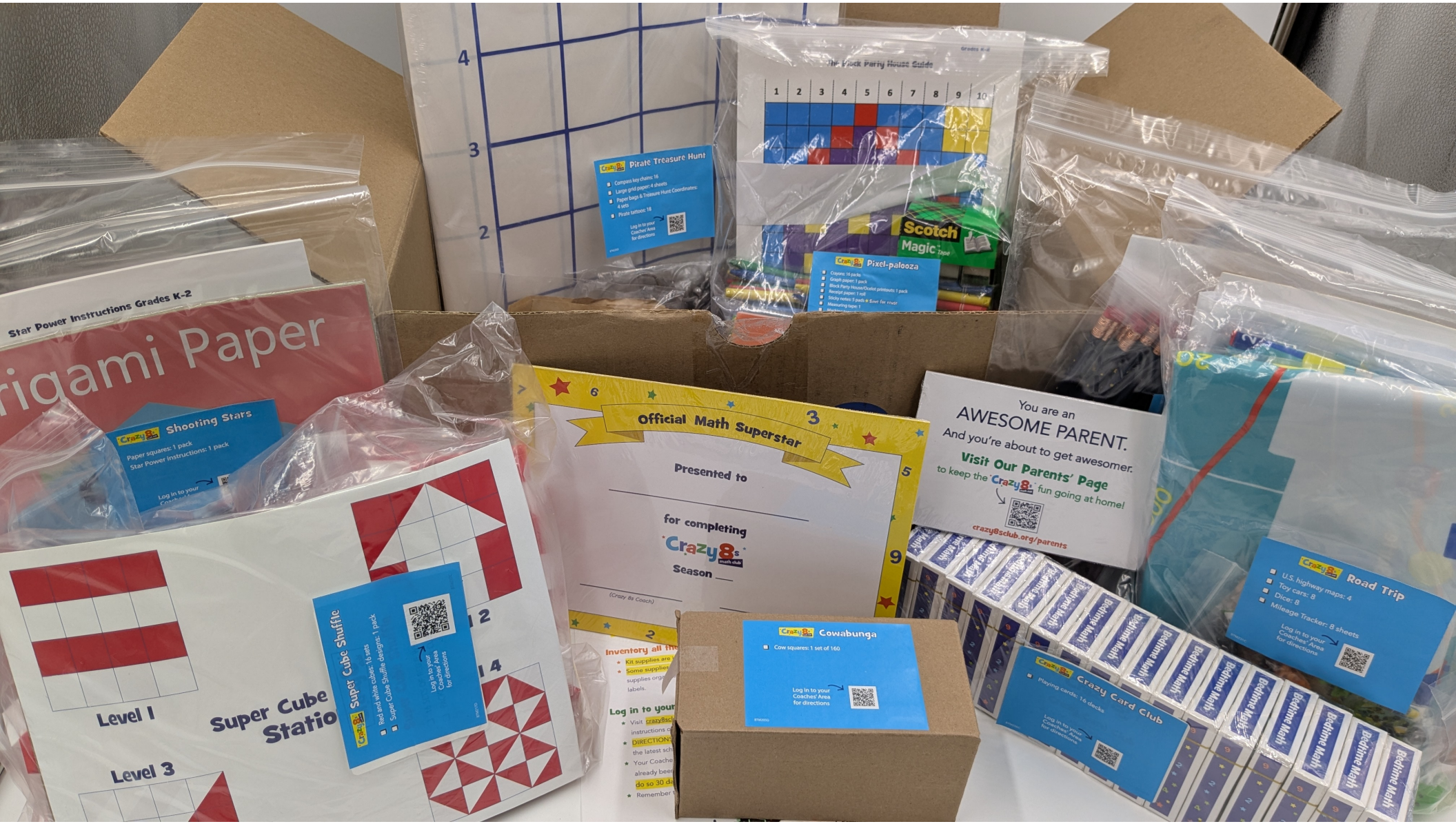
K.G.B.6 Compose simple shapes to form larger shapes. *For example, "Can you join these two triangles with full sides touching to make a rectangle*?"

1.G.A.2 Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.

2.G.A.2 Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.

MP.1 Make sense of problems and persevere in solving them.

MP.4 Model with mathematics.


Star Power Instructions Grades K-2
rigami Paper
Shooting Stars
Paper squares: 1 pack
Star Power Instructions: 1 pack
Pirate Treasure Hunt
Compass key chains: 16
Large grid paper: 4 sheets
Paper bags & Treasure Hunt Coordinates: 4 sets
Pirate tattoos: 18
Pixel-palooza
Scotch Magic Tape
Official Math Superstar
Presented to
for completing
Crazy8s math club
Season
(Crazy 8s Coach)
You are an AWESOME PARENT.
And you're about to get awesomer.
Visit Our Parents' Page
to keep the Crazy8s fun going at home!
crazy8sclub.org/parents
Road Trip
U.S. highway maps: 4
Toy cars: 8
Dice: 8
Mileage Tracker: 8 sheets
Log in to your Coaches' Area for directions
Super Cube Shuffle
Red and white cubes: 16 sets
Super Cube Shuffle designs: 1 pack
Log in to your Coaches' Area for directions
Level 1
Level 3
Super Cube Statio
Cowabunga
Cow squares: 1 set of 160
Log in to your Coaches' Area for directions
Crazy Card Club
Playing cards: 16 decks
Log in to your Coaches' Area for directions
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