

MOVES:



3-time  
Innovation Research Winner

**16%**  
Increase in math  
problem-solving  
skills

Results in just  
three  
10-minute  
sessions  
per week



Best-in-Class for use of  
Learning Sciences



B R A I N Q U A K E

Supplemental Mathematics Curriculum Aligned to the Common Core for 4th - 8th Grade

Easy to use. Fun. **Predictive.**

# THE MATH PROBLEM

Students' math struggles are actually a language problem. We call it the Symbol Barrier™.

Too many students fail to realize their true mathematics potential, **cutting them off from a variety of college majors and rewarding careers.** This occurs at scale, leading to a national skill-shortage while limiting the individual student. We see **one widespread and pervasive obstacle** to good mathematics learning that can change lives and change society.

Symbolic ("algebraic") representations are essential for more advanced mathematics, but cause major problems for 4<sup>th</sup>-8<sup>th</sup> graders. They also create a **barrier** that prevents students (particularly from more impoverished backgrounds) lacking the appropriate literacies from recognizing their capacity for mathematical thinking, **resulting in disengagement.** Our Chief Scientist Dr. Keith Devlin has called this problem—which is one of language, not mathematics—the **Symbol Barrier™.**

# THE SOLUTION

Breaking the Symbol Barrier™ significantly increases math problem-solving skills.

Based on decades of university research, we created BrainQuake to break the Symbol Barrier™ and **to focus on developing the all-important creative, problem-solving ability that underpins all mathematics.**

We design our tools to provide **an alternative, more learner-friendly interface** to mathematical thinking and multi-step problem solving as a means to break the Symbol Barrier™.

Our supplemental content delivers direct representations of mathematical concepts, allowing students to manipulate game objects **instead of symbols on a page.** Third-party research we neither funded nor led has returned positive efficacy and validation results, including:

- A **16.4% increase in math problem-solving skills** in as little as 10 minutes three times per week for four weeks
- A strong, positive correlation with standardized test items in terms of assessing math proficiency, **making BrainQuake's content predictive of performance on standardized tests**

# DESIGNED FOR SIMPLICITY



1

## SSO To Your LMS

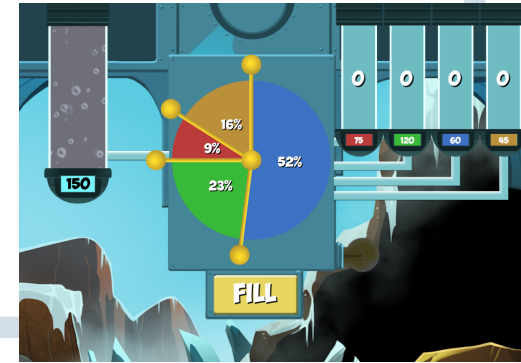
We're on major LMSes, such as Google Classroom, Schoology, Canvas, Blackboard, and Microsoft Teams. Use a different LMS? We'll support you!



2

## Select Your Content

With thousands of puzzles available, you'll never run out of supplemental content. Filter by grade level, Common Core Standard, or Mathematical Practice. Choose individual puzzles or assessment bundles.



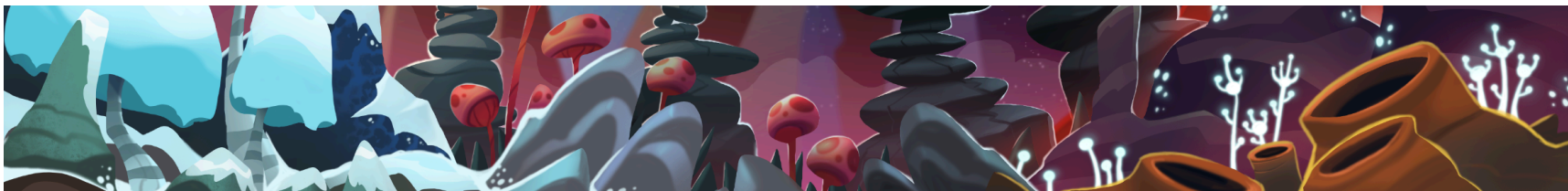
3

## Go!

Teachers use BrainQuake in a variety of ways, from warm ups to psychometrically-validated assessment. Use our materials in ways that best support students!

## Simple Ways To Use BrainQuake

- Class Warm Up with a Single Puzzle
- Assessment Bundle Quiz or Test
- Single Puzzle as Basis for Number Talks
- Assessment Bundles as Growth Measures
- As part of After School Programming
- Homework Playlist
- Puzzles as Formative Assessment
- Student/Teacher Collaborative Problem Solving







# HOW WE'RE DIFFERENT

- Designed to break the Symbol Barrier™
- Backed by **numerous third-party research studies**, including one Stanford study that saw BrainQuake **increase math problem-solving skills by 16.4%** in just four weeks in as little as 10 minutes three times per week.
- .58 correlation with standardized test items **makes BrainQuake predictive of standardized test performance**
- Digital Promise winner for **best-in-class use of Learning Sciences** and honored as a **Research-Backed Product**
- **Three-time winner** of the U.S. Department of Education's Small Business Innovation Award
- Owned by our employees; **we answer to our customers and to ourselves**
- Considered by a wide range of experts, from Jo Boaler to Greg Toppo to Jordan Shapiro, as **an exemplar in mathematics game-based learning**
- Awarded **five patents** by the U.S. Patent and Trademark Office for our mathematical innovations

# Explore the possibilities of breaking the Symbol Barrier™

- ▶ Book a Demo via [hello@brainquake.com](mailto:hello@brainquake.com)
- ▶ [Watch Dr. Keith Devlin Discuss the Symbol Barrier™](#)
- ▶ [Read Our Research](#)



Contact BrainQuake now to learn more about the science behind our designs and how we might be able to help your students and teachers unlock students' right to a mathematically empowered future!

[www.brainquake.com](http://www.brainquake.com) | [hello@brainquake.com](mailto:hello@brainquake.com)



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