

# We ❤️ learning

We're here to stoke your curiosity and inspire you with the beauty of math, science, and computer science.

*"The mind is not a vessel to be filled, but a fire to be kindled."*  
— Plutarch

## Our principles

Brilliant creates a culture of learning around inquiry, curiosity, and openness to failure. All of our courses are written with these principles of learning in mind.

### Effective math and science learning...

- 1

**Excites.**  
The greatest challenges to education are disinterest and apathy.
- 2

**Cultivates curiosity.**  
Questions and storytelling that cultivate natural curiosity are better than the threat of a test.
- 3

**Is active.**  
Effective learning is active, not passive. Watching a video is not enough.
- 4

**Is applicable.**  
Use it or lose it: it is essential to apply what you're learning as you learn it.
- 5

**Is community driven.**  
A community that challenges and inspires you is invaluable.
- 6

**Doesn't discriminate.**  
Your age, country, and gender don't determine what you are capable of learning.
- 7

**Allows for failure.**  
The best learners allow themselves to make many mistakes along their journey.
- 8

**Sparks questions.**  
The culmination of a great education isn't knowing all the answers — it's knowing what to ask.

## Our course creators

Brilliant is made with the loving efforts of lifelong learners from MIT, Caltech, Duke, the University of Chicago, and more.

We're passionately working on delivering the very best math and science education on earth. Your age, country, and gender don't determine what you are capable of learning. You do.

Learn more about our core team below. We organize dozens of leading instructors and researchers around the world to create Brilliant.



**Calvin Lin**  
International Mathematical Olympiad 2000, 2001  
Calvin represented Singapore in the IMO. He has spent years teaching the joy of mathematics through understanding the patterns and linkage of ideas, rather than the memorization of formulas.



**Zandra Vinegar**  
B.S. in Mathematics, MIT  
Zandra has taught aspiring young students in math enrichment programs such as the Berkeley, Stanford, and San Francisco Math Circles. She loves opening people's eyes to the beautiful relationships that exist in mathematics.



**Blake Farrow**  
M.S. in Materials Science and Applied Physics, Caltech  
Blake has pursued research in physics and engineering ranging from quantum optics to molecular recognition at the University of Waterloo and Caltech. He had his fill lecturing in chemistry and physics and loves teaching at scale through challenging and interactive problems.



**Josh Silverman**  
Ph.D. in Biological Physics, The Scripps Research Institute  
Josh has researched problems at the intersection of physics and biology, focusing on the economics of resource allocation in growing cells. He likes to shine light on ideas that cross the borders between disciplines.

[See all educators](#)

## Our method

In school, people are often trained to apply formulas to rote problems. But this traditional approach prevents deeper understanding of concepts, reduces independent critical thinking, and cultivates few useful skills.

The capacity to think critically separates the great from the good. We can grow this capacity by trying — and often failing — to solve diverse, concrete problems.

- Start with simple questions and stories that build your foundation and intuition.
- Ramp up to solving problems that seemed beyond your ability.
- Study different ways of solving the problems that are out of your grasp.

Millions of people around the world are growing their critical thinking and problem-solving skills together on Brilliant, and we're studying what works and what doesn't. We put our learnings back into our product, content, and community development for your benefit.

*"A significantly greater number of students fail science, engineering and math courses that are taught lecture-style than fail in classes incorporating so-called active learning that expects them to participate in discussions and problem-solving beyond what they've memorized."*

— [Enough with the lecturing](#), National Science Foundation