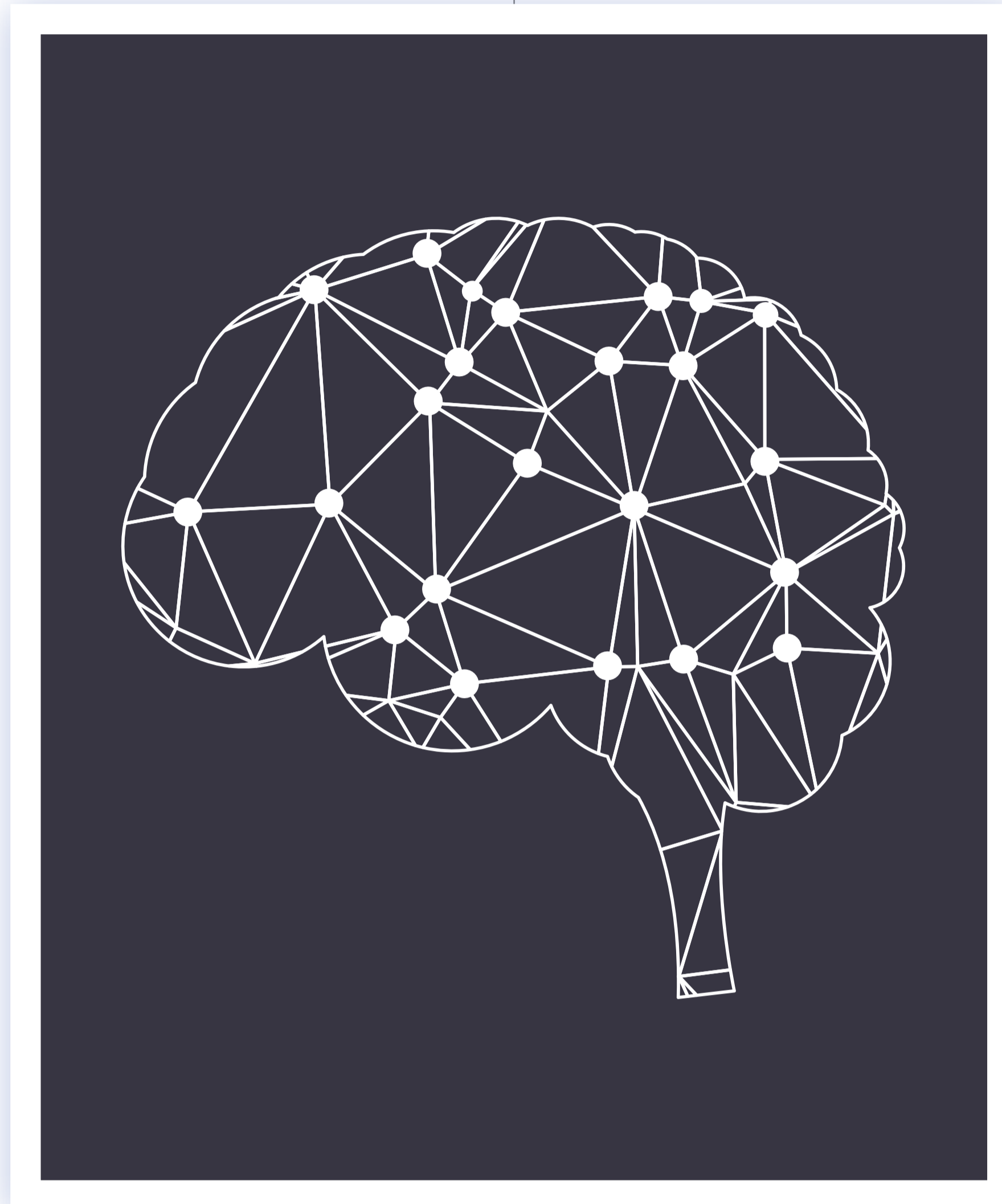







The Brains behind Cerebry's Pedagogy & Content



Cerebry's content has been developed under the direct supervision of 30+ scholars and teachers. The talented and highly skilled team of educators has years of working experience in various educational institutions. They have extensive knowledge in developing content and designing curriculum for the CBSE, ICSE, IGCSE, and IB syllabus. Many of them have been directly involved in creating pedagogically sound and student-driven Math and Physics courses for students of various classes.

Our pedagogues and mentors are established in their own fields and are well equipped with up-to-date knowledge to employ the global best practices in the academic area.

Curriculum Coverage

 Thailand	 India	 Philippines	 Singapore	 Mid-East
IGCSE	CBSE, ICSE	Singapore Math (GCE O Level), DepEd Curriculum.	O Level, IGCSE.	IGCSE, CBSE.

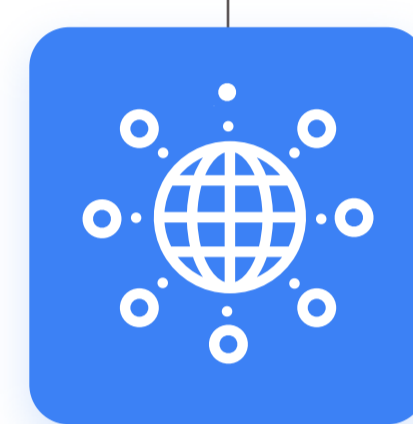


Cerebry's Philosophy

At Cerebry, we believe in the power of a growth mindset. We treat each learner as an individual that absorbs and responds to instructions and educational materials differently. We employ an adaptive and personalized approach through continuously improving learning models.

Cerebry's teaching philosophy helps students in

7 ways:



Connecting mathematical knowledge to real-world phenomena for better understanding



Providing individualized assistance to struggling learners



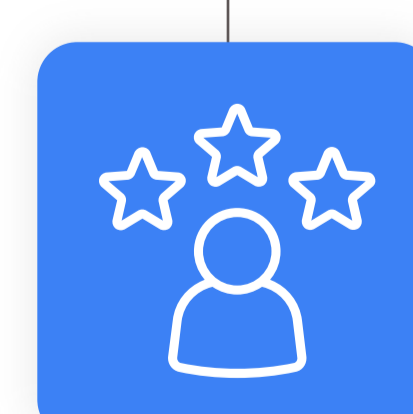
Developing intuition and learning power



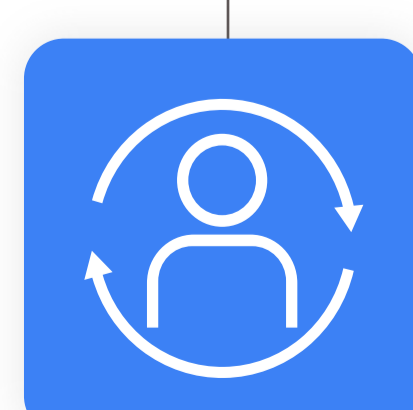
Teaching Maths in a way that is tailored to their level



Providing feedback and support every step of the way



Making them more confident with their math skills and improving their math grades

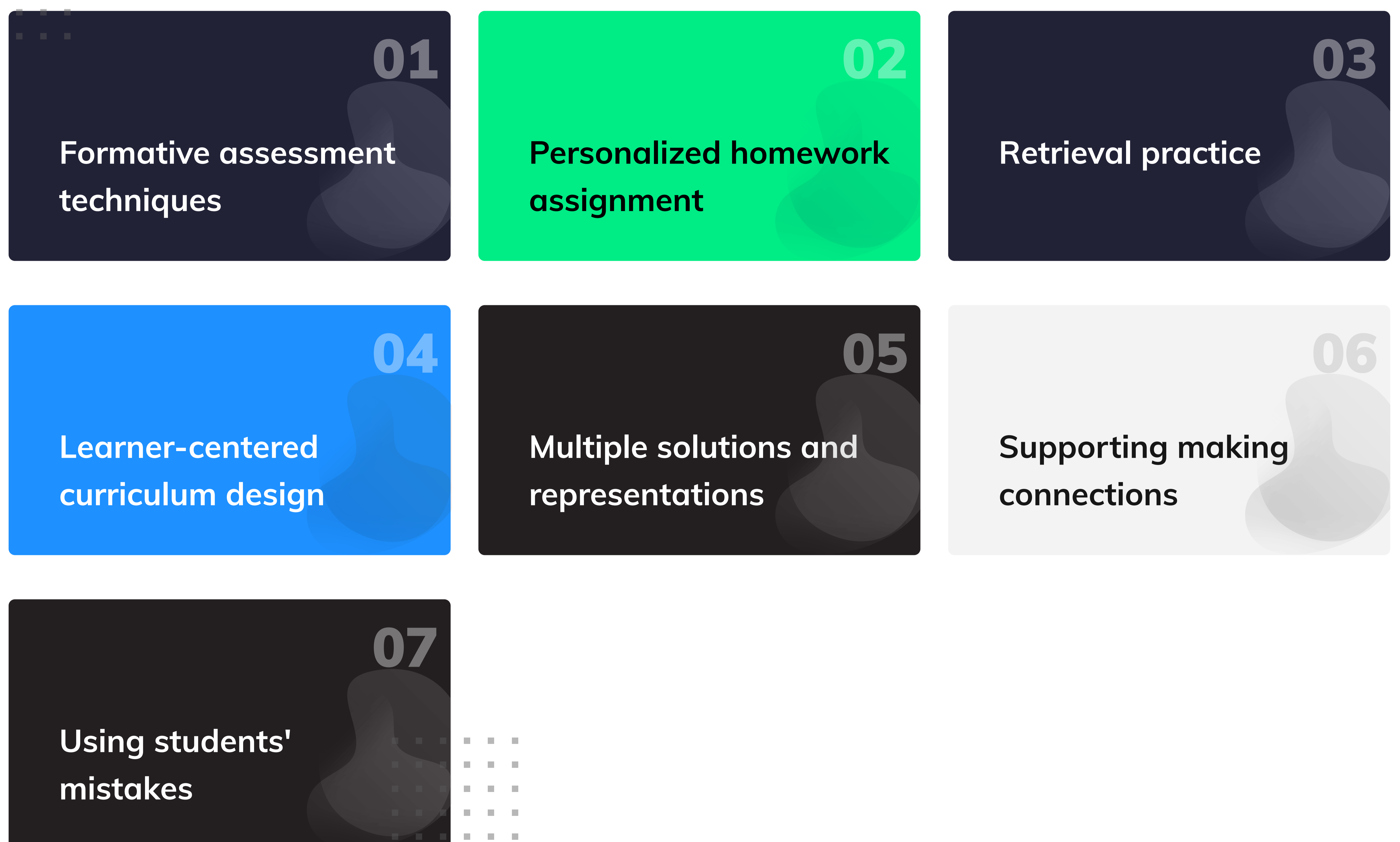


Increasing their engagement and retention rates

The Pedagogy Details

A single teaching technique does not work for everyone, especially for an empirical and practice-based subject like Mathematics. In Cerebry, we've combined variety of techniques that together offer an effective solution for overcoming all Math-related learning barriers.

Cerebry's learning structure is based on 7 crucial blocks:



1. Formative assessment for in-process evaluation.

With this technique, Cerebry determines the academic progress of individual students by assessing their learning needs and comprehension level. It monitors how well students understand concepts as they learn them and adjust instruction accordingly.

For instance, if Cerebry identifies that one aspect of multiplication has been mastered but another part needs work, it will focus attention on the latter half with additional practice problems or videos until mastery is achieved. Learners are thereby given specific tasks that match their skills at any point in time. This approach reduces classroom frustration and ensures a high degree of success.

When it comes to figuring out what the students really know, Cerebry looks at more than one kind of information. It evaluates the answers on their assignments along with how they solve problems and what they share in class. It can then provide a comprehensive picture of what students know — and don't know yet.

A key advantage of formative assessment is that it improves learning for all learners, regardless of their ability level or background knowledge. With Cerebry's help, teachers can identify individual differences and tailor instruction accordingly.

2. Personalized homework assignment

The most challenging tasks associated with teaching mathematics involve designing engaging lessons. Also, not all students will find the lessons interesting enough to tune in.

This is where Cerebry comes into play. Its personalized learning framework ensures that each individual receives just enough support while still challenging them appropriately based on their level of understanding.

It designs lessons, assignments, and homework that cover different concepts and skills tailored specifically for the needs of each individual student. That way no student falls behind, who would otherwise be struggling to keep up with the rest of the class. The personalized lessons allow students to learn at their own pace. It ensures that learners spend more time on concepts they find difficult instead of wasting time on material they already know well.

3. Retrieval practice

Retrieval practice is about recalling already learned information from memory instead of looking it up in a textbook or note. This process of forcing the mind to work out boosts learning.

Cerebry's homework and assignments require students to recall what they have learned in previous lessons and lectures. Because of the tool's real-time operation, students cannot consult their notes or textbooks. Studies have found that retrieving information after a delay can significantly increase its retention.

4. Learner-centered curriculum design

Cerebry allows students to choose their assignments and learning activities. It motivates students to learn new things and engage more time in practice. In a real-world classroom situation, designing student-driven materials with a special focus on individual needs is labor intensive for teachers. Many also lack skills for designing all-inclusive materials that can bring results. In that case, Cerebry can work as an assisting AI tool. It can design student-centered engaging materials that yield the expected outcomes.

Cerebry's learner-centered curriculum design teaches a variety of algorithms and strategies for problem-solving that can be applied in any circumstance. Its goal is to develop strong mathematical concepts in students instead of focusing solely on rote memorization or procedural skills.

One way of promoting this learning goal is through a "problem-based mathematics" approach. For example, students may be introduced to the idea of "algebraic expressions" through a discussion of how they can represent real-life situations, such as simple interest rates or compound interest rates. The focus on solving practical problems helps children develop powerful problem-solving skills. This is more effective than spending limited classroom hours learning procedural steps for many different algorithms.

5. Alternate solutions and representations

The Cerebry curriculum is designed with a focus on developing conceptual understanding and computational flexibility. As there are different ways to solve any given problem, students will learn the concepts behind these solutions, so they can understand why one might choose one solution over another.

Students are challenged with solving problems using different representations, such as graphs, tables, or equations, and then asked to apply what they've learned in new contexts. This perspective changes how we think about math education. Instead of looking for one right answer based on its procedure-based representation (i.e., algebra), students learn that there might be many different ways to solve this same problem (i.e., by looking at its graph).

Focusing on concepts and a multi-solution approach develops a better understanding of solving diverse mathematical problems. Such an approach of diving deep into one area at a time is crucial for more complex STEM subjects. It also makes them ready for future workplaces where math skills are critical.

6. Supporting making connections

Cerebry's curriculum is designed to support making connections between different mathematical ideas. The teachers emphasize links between concepts by introducing modifications of a given topic.

For example, teachers may show the students how to find the area of a parallelogram and then ask them to use that knowledge to work out the volume of a cuboid. Different mathematical patterns and principles can be highlighted by changing the details in a problem set. These connections help learners see new ideas in light of what they already know. They can make sense of complex subject matter by drawing parallels between different concepts.

7. Using mistakes as building blocks

Cerebry designs its building blocks on the misconceptions and mistakes of learners. Instead of simply correcting the mistakes, this tool aims at finding the reason behind the mistakes. It's designed in such a way that it can identify these misunderstood concepts and then provide customized exercises for individual learners.

For example, young children often do decimal fractions incorrectly because of their previous learning that dividing something always makes it smaller. Cerebry will solve this problem by designing homework that requires students rethinking about their solution strategies. It will also drop hints to help them during solving the questions.

The goal is to reduce classroom anxiety, increase confidence, and ensure long-term retention of math through experiential learning.