

Invention Education

Preparing Students for a Future Yet To Be Invented

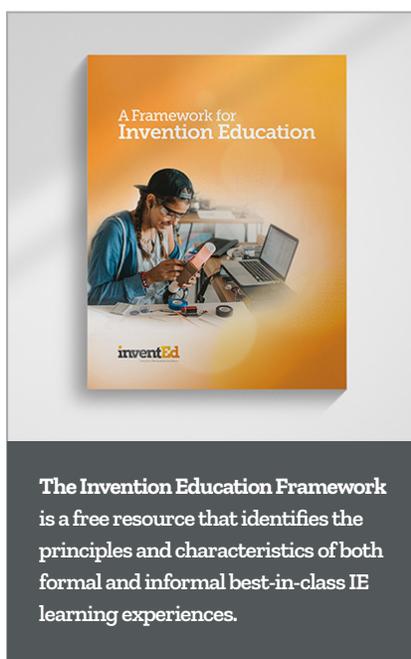
Our children face a future of new, more demanding, and increasingly complex problems¹ - climate change, global health, sustainable business, poverty, and more.

Solving these problems will require agile thinkers with diverse perspectives and life experiences, and an ability to identify and acquire the new, yet unknown knowledge needed to operate and create tomorrow's technologies and industries². Skills like leadership, teamwork, empathy and resilience will be needed to prepare students to succeed in the future. There's never been a more clear or urgent need for educators, policy makers, industry leaders, and funders to act.



A diverse group of educators, organizations, and stakeholders are responding.

They're working together to bring Invention Education to more students. Hundreds of thousands of students have already demonstrated that by teaching the unique ways inventors identify and solve problems, we can empower students with a set of skills that gives them the ability to succeed in an ever-changing future.



WHAT is Invention Education

- A powerful educational approach for K-12 students that teaches the unique ways inventors identify and solve problems.
- A fun and engaging way to empower students with a set of skills that gives them the ability to succeed in an ever-changing future - whether or not they become inventors.
- A real-world application of disciplines including STEM and computer science that acts as a catalyst for deeper learning and engagement.
- A transformative experience that helps students be more inclusive and equitable in how they identify and solve problems.
- A flexible approach that comes to life in a variety of ways in both formal and informal settings.

1 UN Sustainable Development Goals
2 WEF Jobs for the Future

WHY it Matters

Invention Education is relevant for both in- and out-of-school programming because it cultivates the skillsets and mindsets critical for enabling students to navigate a fast-paced, evolving economy and changing career landscape.

For Students

- ✔ The demand for knowledge and skills in STEM and technology is well documented.³ Invention Education can be a catalyst for deeper learning in STEM while also developing skills such as empathy and inclusion.
- ✔ Students increase their self-confidence and resilience as well as develop leadership and collaboration skills.
- ✔ Every young person has the capacity to invent. Engaging students in Invention Education expands their thinking on what's possible for themselves, their futures, and their world.

3 Researching Invention Education, A White Paper, 2019

For Educators

- ✔ Educators are faced with increasing demands on their time and resources.⁴ Invention Education enhances their existing approaches and integrates with current curriculum.
- ✔ Research shows steady declines in student engagement.⁵ But educators consistently report that Invention Education inspires students to be more engaged in their own learning.
- ✔ Creating a fun, inclusive learning environment is a critical task for any educator. Invention Education's approach to problem identification and real-world learning engages all students in an inclusive and empathetic learning process.

4 Researching Invention Education, A White Paper, 2019
5 Gallup Student Poll, Education Week

For Society

- ✔ Tomorrow's problems demand leaders with diverse thinking and approaches, yet today, 90% of inventors are male and nearly 95% are white or Asian⁶. Our society needs more invention. Engaging diverse students in Invention Education can help deliver it.
- ✔ Creating sustainable, resilient economies is a fundamental challenge for the future. Invention has proven to be a critical driver of economic growth and high quality, high paying jobs.
- ✔ Future leaders will need skills such as empathy and inclusion, as well as technical knowledge (e.g. STEM, computer science) to both thrive in and create the industries and jobs of tomorrow⁷.

6 Researching Invention Education, A White Paper, 2019
7 WEF Jobs for the Future

HOW it Works

Invention Education is a student-centered approach that empowers students to solve the problems they care about. It offers educators the flexibility to integrate it into their current efforts in a variety of ways across a wide range of formal and informal educational settings.



1 Educators integrate the process of invention into their current approaches and curriculum

2 Students are given agency in problem identification – they choose which problems to solve.

3 Students draw upon their knowledge in existing disciplines and approaches (including STEM, computer science, entrepreneurship, project-based-learning and more) as well as their lived experiences to develop real solutions.

4 Students face real-world challenges that activate deeper engagement and learning.

5 Throughout the process, diverse student and community inputs are emphasized, so students gain deep, first-hand knowledge of the value of inclusivity.

LEARN MORE about the InventEd Network

The InventEd Network is a diverse group of leaders from education, government, policy, industry and more, collaborating to bring Invention Education to more students. Learn more about the InventEd Network and how to help more students succeed in a future of rapid change at inventioneducation.org.