

Extraordinary Young Inventors: Promoting a Growth Mindset

STEM innovation knows no age. After all, some of the most remarkable inventions are kid creations! Discover the stories behind ingenious devices brought to life by extraordinary young inventors. These role models are the key to making STEM learning experiences more relatable than ever before.



HANDS-ON STEM EDUCATION

For over 30 years, PCS Edventures has inspired students to develop a passion for Science, Technology, Engineering and Mathematics (STEM), focusing our efforts on making learning and discovery a fun and interactive process for grades K-12.

- Classroom
- After-School
- Home Learning

Educator Prep

MATERIALS:

- Extraordinary Young Inventors Tri-fold (1 per learner or group)
- Set of 5 Extraordinary Young Inventors Posters

OBJECTIVE:

Explore the inspiration behind young inventors' designs to get learners excited about pursuing their own innovative ideas.

Background Information

Seeing someone their age accomplish what they perceive to be an adult-level achievement is inspirational for learners. It's empowering and makes them realize, "Hey, I can do that too!" That's why incorporating young role models into STEM instruction has so many benefits.

5 Ways Learners Benefit from Young STEM Role Models

- Inspires innovation
- Builds learners' confidence in their abilities
- Promotes diversity and inclusion
- Encourages learners to pursue their goals
- Fosters a growth mindset

INSTRUCTIONS:

- 1 Print out a tri-fold for each learner or group and one set of classroom posters. Be sure to print the tri-fold as a 2-sided document.
- 2 Display the posters to build student curiosity.
- 3 Hand out the tri-fold and demonstrate how to fold a tri-fold.
- 4 Read about each extraordinary young inventor.
- 5 Challenge learners to reflect on the discussion questions below.

Discussion Questions:

Reflect on your potential as a young inventor.

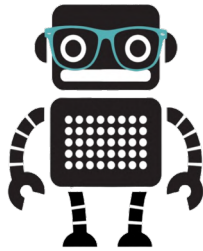
- What problems or challenges in the world inspire you?
- How might you use your creativity to develop a solution?

STEM Extensions:

Literacy: Encourage learners to write fictional stories about their ideas for inventions. They can explore the problem-solving process, the inspiration behind their invention and potential future impacts.

Engineering: Sketch a prototype for an original invention. What problem(s) will your device solve? What materials are needed to make it work?

Social Studies: Discuss the role new inventions play in shaping the world. How have they affected your life? How have they affected society?

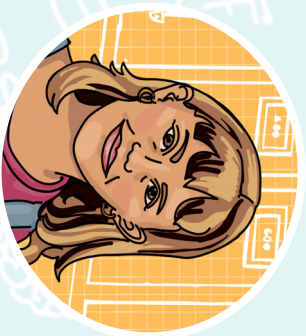
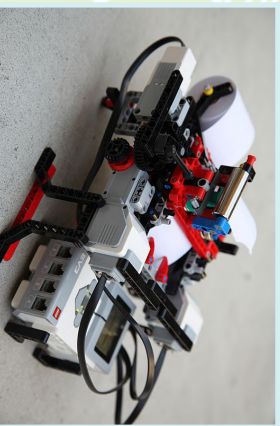


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Name: Shubham Banerjee
Invention: Braigo printer, 2014
Age at time of invention: 12
Location: Born in Hasselt, Belgium/
Moved to California, USA

You've heard of the famous kid inventor Louis Braille, but what about the young inventor who made his raise dot system more accessible? Shubham Banerjee's brick-based Braille printer brought costs for a typical printer-embosser from nearly \$2,000 to just a few hundred dollars. While his company Braigo Labs manufactures printers, they also offer open-source documentation, giving anyone free access to build their own Braille printer. How cool!



Name: Sarah Buckel
Invention: Magnetic Locker
Wallpaper, 2006
Age at time of invention: 14
Location: Pennsylvania, USA

Sparking joy within your drab school locker is easy thanks to Sarah Buckel. Unhappy with difficult-to-remove locker decorations, Buckel teamed up with her father's magnetic business card manufacturing company, MagnaCard, to design magnetic wallpaper she knew teens would love. Her idea brought in over one million dollars in just one year and has stuck around for purchase ever since.



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Extraordinary Young Inventors

Imagine this: you're faced with a problem that seems impossible to crack, but you're no ordinary kid — you're a young inventor! Sometimes problems can be solved best by a young, creative mind. Fortunately, young inventors around the world have chosen to believe in themselves and pursue their ideas.

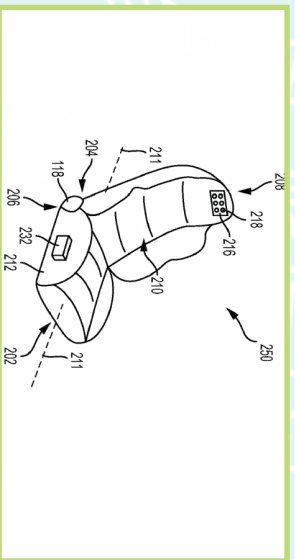
Let's get inspired! These amazing young inventors are proof that the next great idea can come from anywhere and anyone.





Name: Bishop Curry V
Invention: Oasis, 2018
Age at time of invention: 10
Location: Texas, USA

Bishop Curry V is on a mission to save young lives. Inspired by a tragic incident in his local community, he came up with a cool idea — a device designed to alert parents and law enforcement if a child is accidentally left alone in a hot car. The Oasis car seat monitor blows cool air to the child until assistance arrives and is also equipped with motion sensors and GPS technology. Through crowdfunding, Curry built a prototype and even received a patent in 2018 for his life-saving invention.



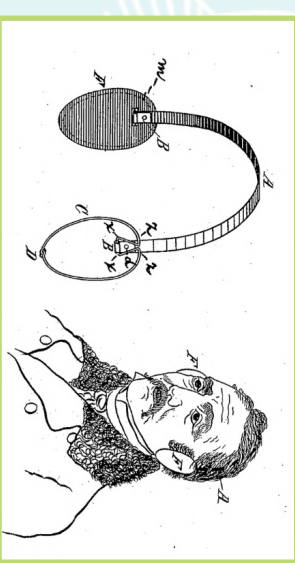
Name: David Cohen
Invention: Robot Earthworm, 2014
Age at time of invention: 13
Location: Texas, USA

A science lesson on earthworms inspired David Cohen to design life-saving robots. Fascinated by their ability to tunnel under layers of dirt, Cohen coded a prototype that could reach and aid disaster survivors trapped beneath rubble. He even included heat sensors and GPS that help locate survivors. Robot earthworms are quite the byte-sized heroes!



Name: Chester Greenwood
Invention: Earmuffs, 1873
Age at time of invention: 15
Location: Maine, USA

In 1873, Chester Greenwood was frustrated. The scarf he wrapped around his ears refused to stay in place and failed to keep him warm while skating. He developed a prototype, asking his grandmother to sew beaver skins to his secure, wire-frame earmuff design. A few years later, World War I soldiers and kids alike had an effective way to stay warm in the winter.



Chester Greenwood

Extraordinary Young Inventors



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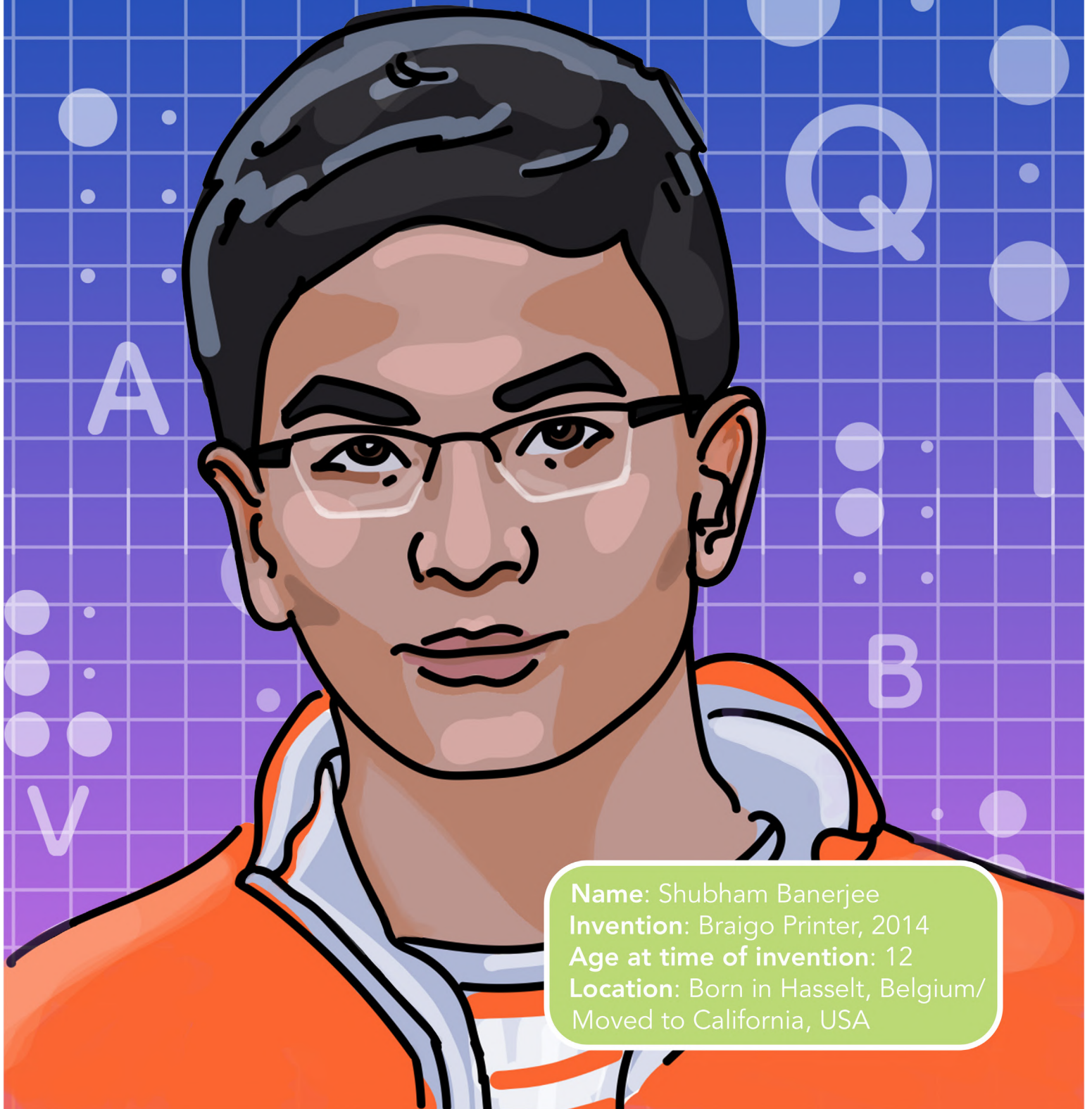
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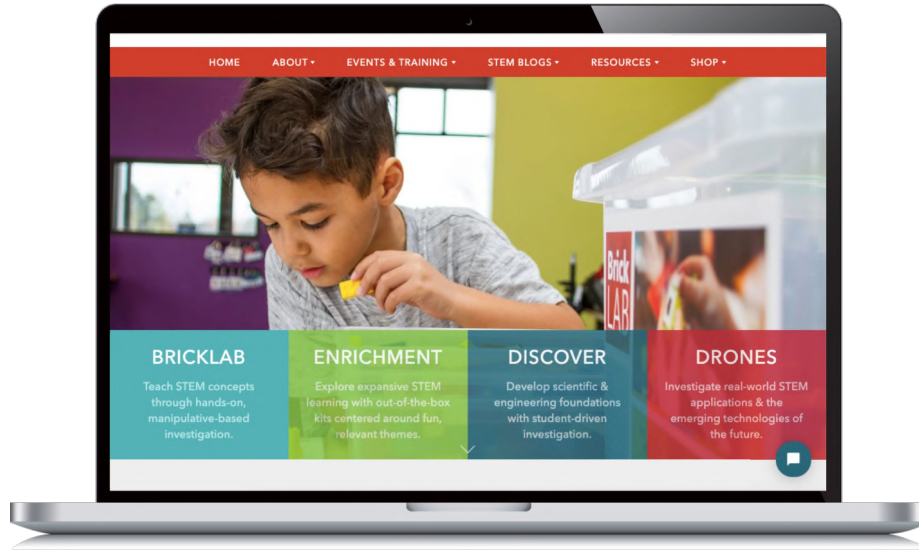
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