





The Maker Mindset

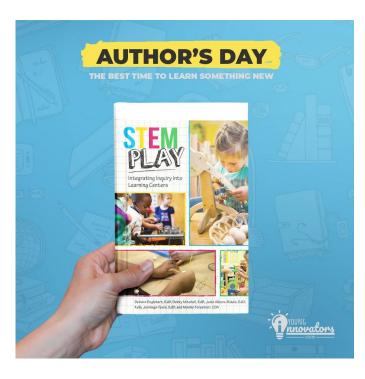






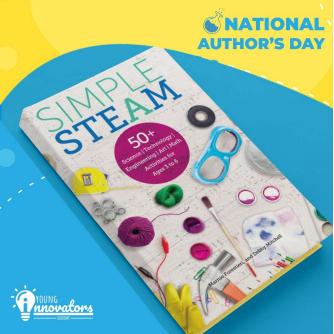








"When I Grow Up ... " STEM Kits



AUTHORITIES IN STEAM EDUCATION IN EARLY CHILDHOOD



LITTLE EXPLORERS ACADEMY ON CHANNEL 6 NEXT GENERATION PRESCHOOL





What is the Maker Mindset?

Simply put, the maker mindset is a way of thinking that emphasizes **building, creating, and learning through action**. It's about harnessing curiosity and resourcefulness to solve problems, improve processes, or create entirely new products. Makers are not afraid of failure—in fact, they lean into it. Every failed prototype, project, or experiment represents a learning opportunity that pushes them closer to success.

For entrepreneurs, the maker mindset shifts the focus from merely **planning or strategizing** to actually testing, building, and doing. It's the opposite of over-analysis or "paralysis by analysis."

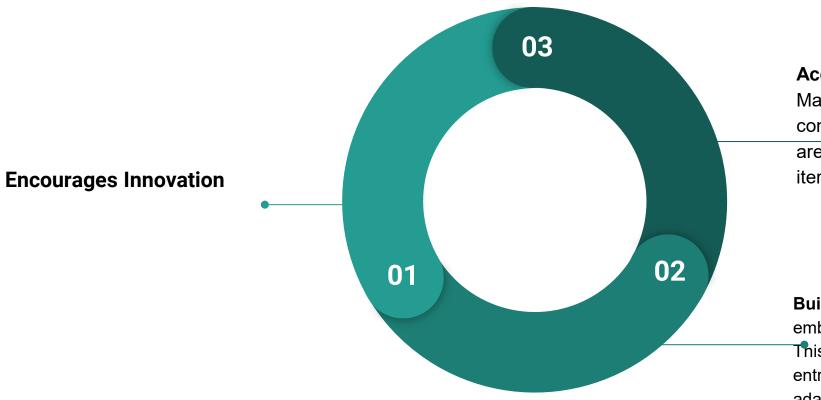


Becoming Makers









Why Does the Maker Mindset Matter in Business?

Accelerates Problem-Solving:

Makers don't wait for the perfect conditions. They start where they are, using available resources to iterate solutions until they succeed.

Builds Resilience: A maker mindset embraces failure as part of the process. This attitude creates resilient entrepreneurs who persist and remain adaptable in the face of obstacles.

STEP #1 Lead by Example



Entrepreneurs set the tone for their team's mindset. To inspire a maker-driven culture, you must embody the values of **creativity**, **curiosity**, and **persistence**.

Show your team that you approach challenges as opportunities to learn and grow. When leaders experiment and take calculated risks, it normalizes the behavior for employees.

For example

- Create a policy and process when testing new ideas.
- Encourage creating prototypes
- Demonstrate resilience by iterating on ideas when the initial approach doesn't work.

By walking the talk, you encourage your team to follow suit.





STEP 1: Learn from Failures

Failure is a critical component of the maker process. Entrepreneurs with a maker mindset view failures as stepping stones to success, extracting valuable lessons from each experience.

Actionable Tip:

- After every unsuccessful project or experiment, hold a retrospective meeting to review what worked, what didn't, and how you can improve moving forward
- Incorporate Thinking routines into your staff meetings.

Step 2: Practice a Thinking Routine

A thinking routine is a set of questions or steps that help guide students' thinking. They can help students develop their content knowledge and thinking skills.





LOOKING CLOSELY

A thinking routine is a set of **questions or steps** that help guide students' thinking. They can help students develop their content knowledge and thinking skill.





What are the different components?

What are the most important departments?

What are the complexity and root cause?

What is the purpose of each department

The most important purpose of the department?.

Brainstorm Solutions

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Brainstorm solutions, build a prototype.

Build a culture of experimentation



EVER WONDER HOW A CLOCK WORKS?

Inspired by the daily chime of the church bell, Miss Dixon's PreK students took apart a wall clock to uncover the its secrets

Children's Reflections

1. What did you do?

Mrs. Dixon brought in a clock to the Young Innovators Academy Winter Park PreK classroom for the children to explore. We dissected the clock, plece by piece, to gain information on the function of the clock. After observing the clock and discussing all the parts, the students did an observational drawing. All children had an opportunity to touch and see the clock as they shared what they observed.



Callum: "It's hard". Noah: "It has numbers, and I can count them". Shiloh: "The handles can move; it has three handles". Jasmin: "The clock tells you when it's time go outside". Austin: "Some clocks have a bell to tell the time". Eowyn: "It has lines, it has glass". Ayla: "It has a bottom here"

2. How did it go?

Students and teachers had a blast dissecting and learning about the clock. We learned that it had more parts than we thought. After the dissection, we couldn't put it back together.

Parts and Purposes:

"There is a gear". (Noah) "Is to spin the hands of the clock". (Austin) "The gear is circle - Shiloh A glass in front of it". (Eowyn) "There is bottom on the back, I think it stops the clock". (Ayla)



3. What did it look like?

Our maker center learning was about a mechanical dissection of an Analog clock. Our students were familiar with a digital clock and were surprised by the type of clock t and how it worked. They were confused by the movements of the hands and how to tell time. Students used various tools to dissect the clock, piece by piece, to learn what each part did.

Observational Drawing: After using their senses, the children were instructed to draw what they saw. The wall clock was placed in front of all children to see the object.



Mechanical Dissection:

The teacher asked how the children could learn more about how a clock works. The children look puzzled. The teacher suggested opening it to see how it worked inside. Some children demonstrated concern about breaking the clock. The teacher explained why we were doing this. The children began interacting with each other, comparing which screwdriver would work best.



Teacher's Reflections

4. What did you learn?

We learned that there were three different hands on the clock which represented hours, minutes, and seconds. We learned that it had gears, and was battery powered. The inside and outside of the clock was like a shell.

5. What did the students learn?

They learned about different types of clocks, screw drivers, batteries and the different sides of them. The also learned about gears and how to work together and more.

6. Outstanding puzzles.

They are curious to see if all clocks like this have similar parts, particularly gears, and if digital clocks have them too. They were curious about how clocks plug in the wall and if there was a way to plug in our clock

7. Next steps.

We are planning on taking apart a digital clock to compare and contrast.

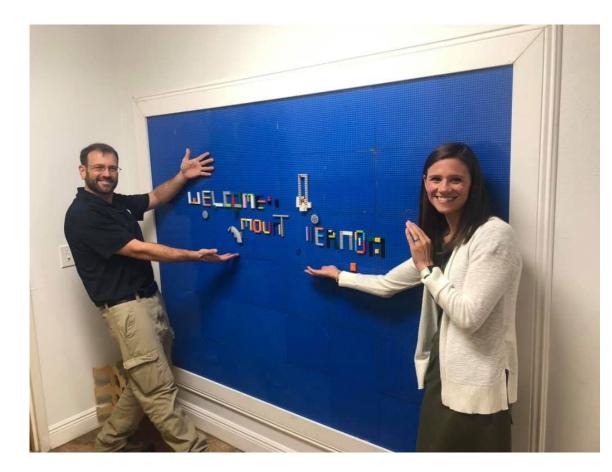


Brought to you by Young Innovators and sponsored by the Early Learning Coalition of Orange County, this initiative unites Orlando's top educators and schools to advance maker-centered learning. Empowering Communities is a project designed by Harvard University professors with the goal of fostersing a community of practitioners dedicated to preparing children for future skills. Join us in shaping the future of education! #EmpoweringCommunities #FutureofEducation

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2. Start Small, but Start Now

The maker mindset thrives on action. You don't need a multi-million-dollar budget or perfect conditions to begin. Start small, experiment, and iterate as you learn.

 Actionable Tip: Take one small idea you've been sitting on and turn it into a low-cost prototype, whether that's a simple sketch, a test product, or a landing page to gauge interest.

3. Build a Culture of Experimentation

Businesses with a maker approach encourage experimentation at every level—from leadership to entrylevel roles. Provide an environment where teams feel safe to try new ideas, even if they fail.

 Actionable Tip: Set aside time for brainstorming or innovation challenges in your team meetings. Recognize and reward innovative thinking, regardless of the outcome.

5. Stay Hands-On

The maker mindset thrives when entrepreneurs are closely engaged with their processes, products, and people. Even as your business grows, don't lose touch with the hands-on principles that inspired its inception.

Actionable Tip:

Regularly immerse yourself in your team's day-to-day activities, customer interactions, or product creation process.
Experience your business from the ground up to gain fresh insights.



3. Provide Resources and Support

Experimentation and innovation require the right tools and resources. Equip your team with the materials, technology, and training they need to bring their ideas to life. Whether it's access to cutting-edge software or mentorship programs, your support signals that innovation is a top priority.

Additionally, ensure your team has the time and autonomy to focus on creative projects. Overburdened employees can't innovate effectively.

4. Create a Safe Space for Failure

One of the most important elements of the maker mindset is **learning from failure**. Entrepreneurs often fear that failure could damage productivity or morale, but the opposite is usually true. By making failure an acceptable part of the process, you empower employees to take calculated risks.

Turn failures into educational moments:

- Conduct post-project reviews with an emphasis on learning, not blame.
- Celebrate effort and ideas, even when they don't result in success.
- Highlight examples of innovations born from "failed" attempts.

When employees feel safe trying new things, they're more likely to innovate.



5. Recognize and Reward Innovation

Celebrating innovation is essential to sustaining a maker mindset. Acknowledge your team's contributions regularly, whether through public recognition, promotions, or incentives.

Some ideas include:

- Highlighting team achievements during meetings or newsletters.
- Offering professional development perks, such as classes or conferences, to team members who show exceptional creativity.
- Establishing an annual or monthly "Innovation Award" to honor outstanding efforts.

This kind of recognition motivates employees to keep pushing boundaries and aligns your organizational culture with the values of the maker mindset.



The Problem: Up <u>to 85 percent of the jobs</u> in 2030 haven't been invented yet.

Give your child the Gift of Innovation Your Child's Innovation Journey starts here...

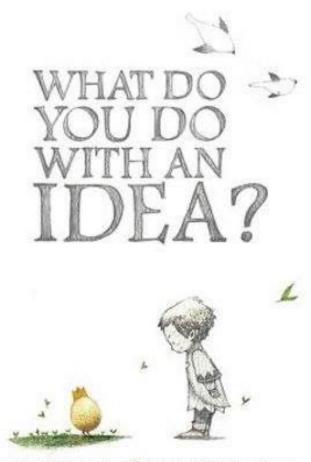
Proprietary Curriculum











Written by Kobi Yamada 🐓 Illustrated by Mae Besom



Give Your Child The INNOVATION ADVANTAGE

