little **ROBOT** friends®

Supercharge a 'growth mindset' in your kid

A 3-step guide to getting there!

Fixed vs. Growth

There's one defining factor that's repeatedly found to have the greatest impact on success—a growth mindset.

Mindset influences everything from a child's willingness to take risks and feedback, raise their hand in school to offer a potential solution, or attempt a new extra-curricular activity.

After years of studying the attitudes students had around failure, researcher Carol Dweck coined the terms **'growth mindset'** and **'fixed mindset'** to describe the different beliefs she saw amongst the kids.

Those with a fixed mindset believe that talent is finite, so there's no point in trying to improve whereas people who have a growth mindset view failure as a chance to learn and improve.

Neuroscience research has found that the brain is malleable, meaning it is capable of improving with practice. So, if a child adopts a growth mindset, they will be able to go farther in the long-term than their peers with a fixed mindset. They'll learn that success is a result of practice and perseverance rather than a fixed amount of talent. **Learning this mindset is crucial to unlock future achievements.**

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Project presentation at Summer Camp

Fixed vs. Growth

At Little Robot Friends, our favourite teaching moment is when a child realizes they've just programmed their robot to sing their favourite song or do neat tricks with cute sounds. Each time this happens, the child becomes more confident knowing they've solved a puzzle and learned to code.

> *People who have a growth mindset view failure as a chance to learn and improve.*

We've seen it time and time again in our coding classes, day camps, and workshops that we've hosted for hundreds of kids. The kids go through a learning process, making plenty of mistakes, but each failure gets them closer to the outcome they're seeking.

It's difficult to stand back and only offer as much feedback as needed, but the rewards are great. Each experience helps move them toward a growth mindset, which links to a love of learning as kids understand their abilities can strengthen through practice and effort.

> *Success is a result of practice and perservance rather than a fixed mindset.*

Making mistakes is how we learn. The more mistakes your children make, the smarter they'll become. That's why we believe it's **imperative to teach kids to be resilient and persistent in the face of challenges and embracing a growth mindset is how they can successfully tackle their future.**

Coding games at Winter Camp

Building a car in Maker Club

So, are you ready to up your child's mental game?

We're sharing **three steps for you to supercharge your child's growth mindset.** They're so easy that the minute you finish reading this guide you can implement the strategies right away.

Be sure to read to the end, as we have embedded a surprise gift for you! And use the #littlerobotfriends hashtag and tag us @lilrobotfriends when you share your story of implementing growth mindset, so we can feature you!

Identifying the signs of a growth mindset

We can choose our beliefs and change them at any time. That's why the first step to helping your child develop a growth mindset is figuring out where their beliefs lie. Are they operating from a fixed mindset or a growth mindset?

Even before kids begin coding through our camps and workshops, it's easy to spot the differences in mindset through body language and the words they use to describe how they're feeling as they solve problems and face challenges.

So, how can you tell if your child has a growth mindset?

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**Read the seven signs our team of educators look out for when working with kids.**

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Robot concert at Summer Camp

1 **They embrace the problem-solving process as an opportunity to learn.** They're willing to test solutions, be creative, and reflect on what they know.

2 **They accept mistakes as a chance to learn.** They're able to take and use feedback. They know their brain can change and grow.

3 **They continue to persevere while they face challenges.** When they're stuck, they manage their emotions, take a break, and keep trying to find a solution.

4 **They believe they can improve smarts and skills with effort and practice.** They ask questions, explore what others are doing, and put forth their best effort.

5 **They feel secure to step into the unknown,** take on new challenges and try new things. They express curiosity, excitement and confidence.

6 **Speak to themselves with growth positive language.** They acknowledge their feelings and their self-talk is focused on possibility.

7 **They find others' success inspiring.** They get excited when their friends figure something out—sometimes they even cheer! They use their friend's success as evidence of possibility so they gather around to learn how they did it.

Are you ready to help your child build a growth mindset?
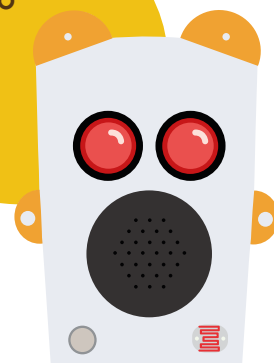
Easy-to-do strategies to build growth mindset

The most effective way to help kids develop their growth mindset is to give them challenging problems and let them make mistakes.

A few of our favourite problem-solving opportunities include: puzzles, board games, building with Lego, learning to tie different knots, and folding laundry (Yes)!

Our Paperbot Kit is another simple option to get started. Using paper, LEDs, conductive tape and a coin cell battery, kids learn about circuits, how to measure, cut, follow instructions and troubleshoot problems.

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CLICK HERE to learn more about the paperbot kits.

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Use the strategies on the next page to help your child reflect on their learning and reframe their self-talk to acknowledge the effort they put into solving problems.

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Paper circuit robots at PA Day Camp

Reframe Mistakes

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" *Remember the two benefits of failure. First, if you do fail you learn what doesn't work; and second, the failure gives you the opportunity to try a new approach.*

Roger Von Dech

How to get started:

Ditch the mistake shame with a family discussion about the importance of mistakes. Decide that your family will embrace mistakes as a learning opportunity.

Share and reflect on your mistakes:

Skip the standard "How was your day?" question and ask your family members to share a mistake they made. Share with each other what you did, and why it's something you don't know how to do yet.

Encourage Risk-Taking

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" *There are no rules here. We're trying to accomplish something.*

Thomas A. Edison

How to get started:

Kids hear a lot of 'No's so consider whether you need to give one. When possible, avoid reprimanding them for their decision to try something risky and do your best to step back and let your child experience risk. Setbacks are a key part of learning and they must experience them and persevere despite them.

Do this one thing over and over:

Model trying new things and share your experiences—successes and failures.

Plan To Solve Problems

I wonder...

STEM TALK
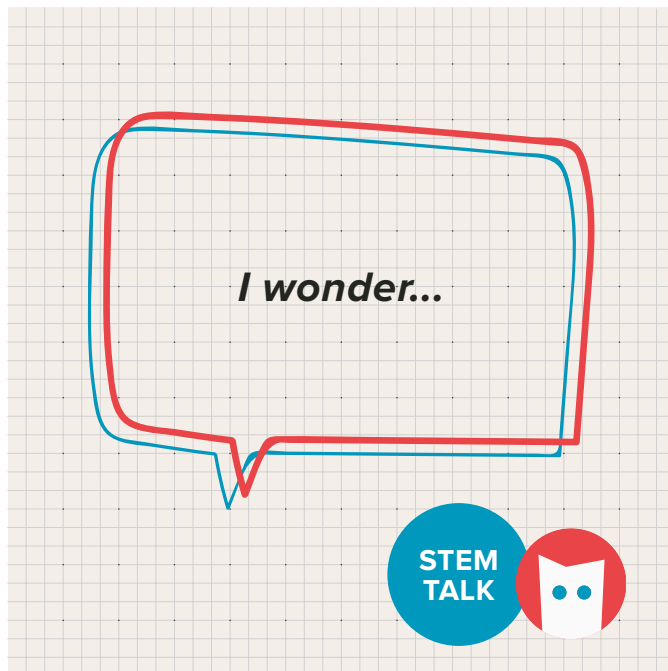
How to get started:

Make it a habit to practice solving and discussing problems together. Reading books and playing games is a good place to start. Be sure children see you engaged in problem-solving activities and voice aloud the steps you take to find a solution.

Model the basics of problem-solving:

- Identify the problem & goal
- Brainstorm what you know
- Choose a solution to try
- Reflect and reassess

Learn how you can model a growth mindset through words!
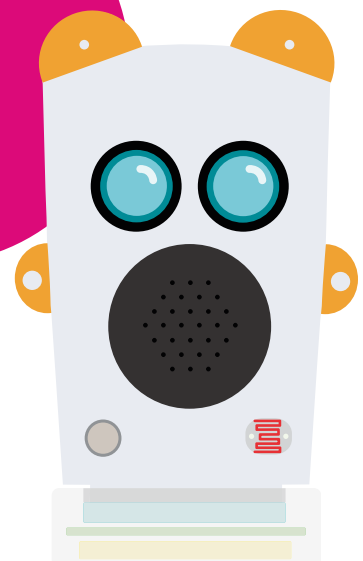
Phrases to encourage growth mindset

Kids learn behaviour and beliefs from those around them. Our words and actions are influential, but only if kids understand what we're doing. That's why **modeling a growth mindset through words** is an impactful way of changing the way kids speak about themselves and their abilities. It helps them reframe their perspective on mistakes.

At Little Robot Friends, we've seen first-hand the impact of modeling a growth mindset. Since the majority of them come with no coding background, when kids show up to Little Robots Friends HQ for their first session they're not quite sure what to expect.

Our team uses the think-aloud strategy to model growth mindset. It's where you voice your thoughts aloud so children can learn what you're thinking and how you're solving a challenge. It might feel silly but it works well for showing kids how to rewrite their internal script when faced with a challenge.

You can easily start doing this with your kids. The next time you make a mistake, try to move away from a fixed mindset headspace filled with negative self-talk and instead, use a few of our **favourite phrases for modeling a growth mindset**.

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Project presentation at Summer Camp

Rather than → Try saying

I made a mistake. → Mistakes help me learn.

I'm never going to figure this out. → Now I know _____ and that will help me find a solution.

This is too hard. → I need more time and effort to figure this out.

I don't know how to do this. → What do I know that can help me solve this problem?

I failed again. → I'm not going to give up on myself.

It's good enough. → Is this my best effort?

I'm so talented. → I work really hard at this.

Everyone is better than me. → I need to put in more effort and I'll get there too.

This is too easy. → I wonder how I can make this more challenging.

This is too much work. → I'm going to take a break, and then keep going.

Time for action!

Now that you have the 3 steps to supercharge a growth mindset in your kid, it's time to take action.

Tag us @lilrobotfriends and use #littlerobotfriends to share your experience implementing any of the tips above. We'd love to hear from you and feature your work!

We could be a little biased, but we think learning how to code and make things is an excellent way to implement the growth mindset in young kids. As parents raising our curious son, just like you, we care about raising kids who are resilient, curious, and have a positive attitude. For taking the time to read and commit to raising kids with a growth mindset, we're gifting you a special 15% off discount code **GROWTH** to use on our shop to buy a Little Robot Friend of your very own.*

Ann Poochareon and Mark Argo
Founders of Little Robot Friends

* This code can be applied to any Cubby robot package (individual or educator pack) and our new Paperbot Kit.
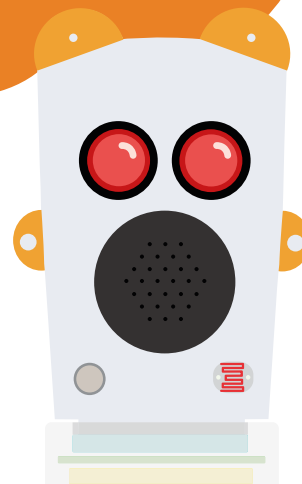
Resources:

Decades of Scientific Research that Started A Growth Mindset Revolution.

Dweck, Carol. Mindsets: Developing Talent Through a Growth Mindset.

Ng, Betsy. (2018). The Neuroscience of Growth Mindset and Intrinsic Motivation.

Thanks for reading!

Learn to code with us!

> " I see kids get really excited about...getting to program and make them do something, which I don't think before the workshop they thought they were capable of doing.

Michelle Mismash, TDSB Teacher

> " My robot's name is E.T. I liked learning how to tap the sensors and make it do different things. I made expressions for all of the parts.

Emily M., 7 years old

> " My 9 year old and his bestie participated in a PA Day workshop. Not only was it packed with really enjoyable activities all related to coding for their little robots, but it was run by really kind and excellent female coders. The children adored every second of the day, and were made to feel incredibly welcome the whole time they were there. I cannot recommend Little Robot Friends enough. Terrific people, and a terrific intro to coding.

Stacey Iseman, Mom

Our mission is to empower kids to think creatively with technology.

Founded by Ann & Mark, a wife & husband duo, and based in Toronto, Canada, Little Robot Friends is a team of designers, engineers, and educators who are passionate about changing the way our kids learn. From basic introductions to code and electronics, to making robot superheroes, we are always running workshops and building products that will inspire kids' creative imagination. Connect with us at littlerobotfriends.com.

Team Little Robot Friends 2019