



Championing your STEM/STEAM Initiatives: A Teacher Guidebook

Members of the National Network of State Teachers of the Year (NNSTOY) developed this teacher guidebook in partnership with LEGO® Education to empower educators to develop their own projects and programs that support innovative, hands-on STEM/STEAM learning and community outreach.

Partnering with NNSTOY to Empower Teachers

This guidebook is for teachers. They are, after all, the most crucial factor for student success. We believe teachers should be the voices of learning transformation, given their close relationships with students and the influence they have on their success. The guidebook provides a framework for teachers who want to start their own innovative STEAM program or project that might require additional resources or support for success.

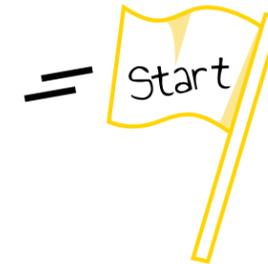


NNSTOY
TEACHERS LEADING

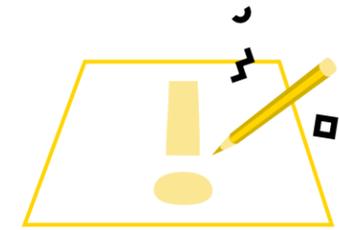
LEGO education™

Teachers will hear from National Network of State Teachers of the Year (NNSTOY) members as they share stories from their own advocacy journeys and the lessons they learned along the way.

The framework is divided into five categories:



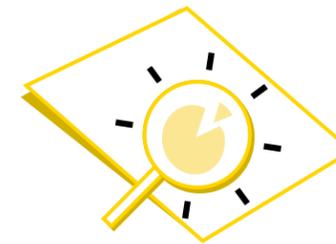
Knowing where to start



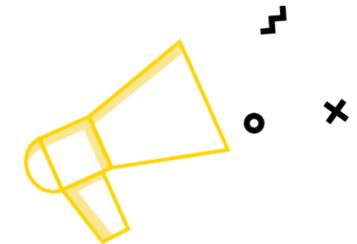
Preparing a pitch to administration



Collaborating with others



Gathering evidence for success



Sharing the project's story with the greater community

Knowing where to start

Have you dreamed of creating new opportunities for your students to engage them in STEAM learning? Are you concerned about time? Are you wondering about how to be ready to share your idea with administration? Anyone getting started with a new project or program has concerns and questions about making it a reality in the classroom. Jeff Charbonneau and Adam Gebhardt share their tips for knowing where to start.



Jeff Charbonneau

2013 Washington State Teacher of the Year
2013 National Teacher of the Year

1. Decide what your **ONE** big impact will be for this year. Pick one major theme and make it the focus of the year.
2. Determine **TWO** reasons why you believe you are uniquely positioned to make this project a reality for your students.
3. Identify **THREE** different ways you can put this project into practice. What constraints do you need to consider? What are some fresh approaches to your idea that haven't been tried before? Determine those three different ways and then identify the best approach for you and your students.
4. Determine **FOUR** resources that you don't have at your disposal that you need to make your vision a reality. Remember, the best approach is to have specific asks for items or opportunities rather than asking for funds. This provides your potential partners a concrete and specific request they can support rather than an abstract dollar amount.
5. Identify **FIVE** different contacts you need to make in order for your project to be successful. Great projects aren't done in isolation. They need a community of partners who can help provide advice, opportunities, and resources for your students.



Adam Gebhardt

2018 Pennsylvania State Teacher of the Year Finalist

Tips for getting started on your own advocacy journey:

1. **Involve students** in the entire advocacy process.
 - Invite them to share their passions and interests to help shape the direction of your project.
 - Provide student agency and ownership in decision making along the way.
2. **Anticipate** the possible hurdles in your project and be prepared to develop solutions.
 - Take the time to dissect your project and identify areas that need strengthening. Being prepared for these issues ahead of time will make your project more viable.
3. **Remember your "Why"** for the project.
 - What is your motivation? Who will it benefit? As you navigate the experience, coming back to your why will always center your thinking and keep you focused on success.
4. **Seek out the "Yes"** before you find a "No."
 - Don't be afraid to approach administration or potential project partners for support. Be ready to share the good news about the project and let your excitement lead the way.

Preparing to pitch to administration

You have a well thought out idea, but now it's time to approach your administration and potential project partners for support. Where should you begin? What elements should your pitch include? Kara Ball and Isabel Morales share their advice for creating a great pitch.



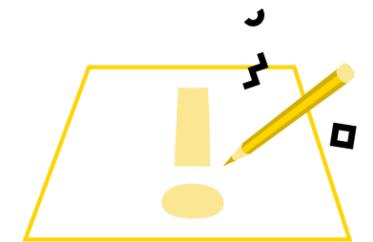
Kara Ball

2018 Department of Defense Education Activity (DoDEA) State Teacher of the Year

Getting **administrator support** for your project is critical, and going into that meeting prepared is your best approach. Consider some possible questions or pushbacks your administrator might ask before going into the meeting and be ready to provide additional clarity if needed. Common questions include:

- What financial costs do you anticipate?
- Which student populations will participate?
- What are the **benefits** for the students and the school?

It's also important to have your 30-second **elevator pitch** practiced and ready to share. Even a couple of sentences along with a visual aid that provides additional clarity and excitement can get your foot in the door.



Isabel Morales

2014–15 California State Teacher of the Year Finalist

Advice

1. Be clear about your pitch and align it to student learning and school wide goals. This builds context and support with your administration.
2. Determine the best approach for your pitch. Are you stronger with verbal or written communication skills? Use your strengths to provide the best "ask".
3. Pitch with confidence. **Share your enthusiasm** for the project and the benefits it will bring to your school.
4. Don't underestimate the power of parent and student enthusiasm. If they are advocates for the project, consider highlighting them in your pitch.
5. Don't give up. Even though you might receive a "No" on your pitch, that does not mean the project idea doesn't have merit. Consider how you would reframe it for future ask.

Pitfalls to avoid

1. Beware of bad timing. It's important to determine the best opportunity to share your pitch with administration or potential project partners without distraction.
2. **Be prepared** for a great pitch. Take the time to think through possible questions and concerns your administration may have and be ready to provide confident answers.
3. Avoid being vague. The success of your pitch often depends on having clear and specific asks. Are you asking for permission? Resources? Opportunities? Share these requests with clarity.
4. Don't be afraid to **be persistent**. Everyone gets busy, even administrators, so a follow up email or a gentle reminder can go a long way.

Collaborating with others

Having project partners is often the key to take your project to the next level. Through these collaborations, students are given access to new opportunities such as field trips, interviews with experts, additional resources, or even a few surprises. Allyson Burns and Spencer Kiper provide insight into how they collaborate with others.



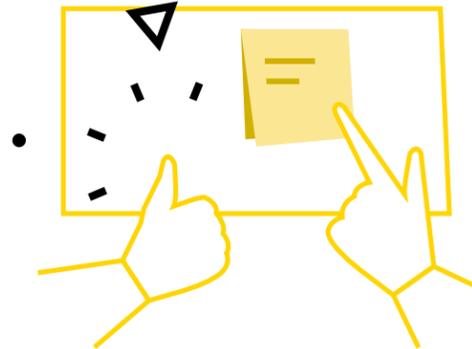
Allyson Burns

2022 Department of Defense Education Activity (DoDEA)
State Teacher of the Year

Authentic collaboration is at the heart of what we do as teacher leaders for our students and for our project partners. There are **five stakeholder groups** to consider for collaboration:

1. District Leadership
2. School Leadership
3. Peers
4. Parents
5. Community Organizations

If teachers can **document** how each stakeholder group **benefits** from this project, the more support the project will receive.



Spencer Kiper

2019 Louisiana Teacher of the Year

The key to creating a successful project partner team is *knowing your allies and accomplices*:

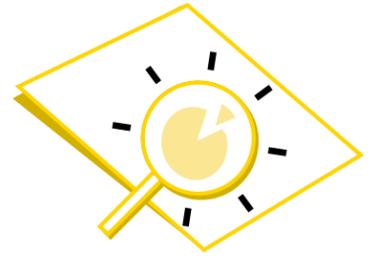
- **Allies** are the encouragers who cheer you on and the advisors or critical friends who advise when needed.
- **Accomplices** are the ones who will work alongside you during the project and help you meet your project goals. They will help create the shared plans that drive your vision.

Tips for collaborating with others:

- **Believe in yourself.** Even if your project idea is still in the beginning stages, celebrate your passion for the idea and trust in your skills to advocate for your students. Use your allies and accomplices to help refine your prototype idea into a final plan of action.
- **Build a network** of educators and professionals who have expertise in your project area. This support system can help you keep a focused vision of excellence.

Gathering evidence for success

How might you go about documenting student experiences for your project? What data do you need to collect to show positive growth on students or the community? Gathering evidence for success often begins with a plan. Theresa Goltermann and Dyane Smokorowski give thoughts on how to best document your project.



Theresa Goltermann

2018 Virginia State Teacher of the Year Finalist

Knowing how to gather evidence for success begins with the who, what, how, and when of your project.

- **Who** – It's important to acknowledge all the stakeholders, decision makers, and influencers offering support and/or resources for your project. Projects are definitely better run with a network of supports, so be sure to list those who helped along the way.
- **What** – Consider what evidence you need to show success. Create a spreadsheet with a detailed list of materials, vendors, and cost. As your project continues, take photos and videos of those materials being used and be sure to share those with your

donors along with a public thank you to them. Finally, create graphics that show student growth in confidence and skill throughout the project.

- **How** – This is where you store and share your data. It could be a document folder, physical folder, or even a website.
- **When** – Even before you launch your project, determine when you will budget time to complete paperwork, provide social media shout outs, make purchase orders, etc. By carving out the time to manage the project details effectively, the smoother your project will go.



Dyane Smokorowski

2013 Kansas Teacher of the Year

Gathering evidence for success begins with having a **project website** as the communication hub for families, community partners, and administration. Here are some content items to include on your site:

- Your **Why** – Share with your audience why this project is important and the goals behind it. Include the benefits for students and any potential community service learning opportunities that might be met during the project.
- A Project **Blog** – This is a great opportunity for students to practice their writing skills. Assign a different student each day to write a short summary of the daily progress and take a few photos from class as evidence. In no time, you will have a great story unfold with visuals to share.

- A **Contact Us** Section – Whether you post a contact form or share your social media handle, it's important to have a contact us section on your site. This allows future potential partners and the media to reach you easily.
- **Testimonies** – Grab those soundbites from students during the project and post them on the site. These could be short videos or quotes from the classroom or even positive comments from parents.
- Your **Personal Growth Story** – Teachers grow from projects as much as students do. Use this space to provide a personal reflection on how you have grown personally and professionally from this experience.

Sharing the project's story with the greater community

Sharing your students' project story is one of the most important things you can do as a teacher leader. This provides inspiration to other teachers looking to start their own programs, and it gives your students the space to shine. Focus on the impact this experience has had for students and your community so others will be excited to know more or support future projects. Eric Langhorst and Aaron Maurer share their tips for broadcasting your project's story.



Eric Langhorst
2008 Missouri State Teacher of the Year

Donors often request a **summary** of how their donations were used in your project along with student success stories. They might share these with community presentations, corporate newsletters, or in company reports. To help share this story, take several

photos and videos throughout the project and post them to your project website or through social media channels. Even if you don't have a social media account of your own, often schools and districts have their own channels and would love to help share your story.

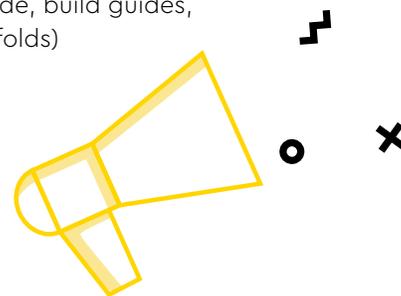


Aaron Mauer
2014 Iowa State Teacher of the Year

Advocacy begins with sharing your story, and even your small pebble of an idea can change the world for another group of students. **Share** your:

- Knowledge
- Amazing Work

- Blog Posts
- Scaffolds (code, build guides, thinking scaffolds)
- Lesson Plans



It doesn't always go swimmingly

Of course, not every project gets the green light. Some lose funding, others never gain momentum, and some pivot in a completely new direction. The reality is we all have bumps in the road with new initiatives. The team of NNSTOY members share their own roadblock journeys and how they navigated along the way in the LEGO® Education community. To learn more and get in on the discussion with peers around the world scan the QR code.

