

This toolkit was developed by the Every Student Succeeds with STEM effort, which empowers all members of the STEM (science, technology, engineering, and mathematics) community to call for an excellent STEM education for all students under the era of the Every Student Succeeds Act (ESSA).

This is a once-in-a-generation opportunity to shape the implementation of a new national education law. Communities across the country are facing a unique moment to provide all students with a well-rounded education, enable greater equity, and give every child an opportunity to gain the skills they need to succeed in school, work, and life in an ever-changing world. As states develop their first-ever state plans under ESSA, it is essential to capitalize on this rare occasion to make our voices heard and help determine how a well-rounded, equitable education can and will prepare our kids for successful, productive, and satisfying lives.

And the work that is done now—whether it be engaging state leaders, organizing and elevating the voices of the STEM community, or highlighting why STEM is such a critical part of student success—will continue after state plans are final, as states, districts, schools, and teachers work to implement ESSA in the years to come. Every Student Succeeds with STEM is just the first step in a much longer movement to ensure high-quality STEM teaching and learning for all kids.

The contents of this toolkit are designed to enable users to engage with a diverse set of stakeholders, including education leaders, policymakers, teachers, parents, and STEM professionals, about the importance of high-quality STEM teaching and learning, particularly in the implementation of ESSA at the state and local level.

- Why the focus on STEM?
- 7 SECTION 2
 Why this moment?
- SECTION 3

 What can I do to help make STEM a priority?
- What should I be saying about STEM and ESSA?
- Who should I reach out to and what tools can I utilize?
- What should I do now that my ESSA state plan is going to be implemented?
- Are there samples I can look at?
 - Phone script for contacting your State
 Education Agency or Governor
 - Email template for contacting your State
 Education Agency or Governor
 - 31 | Sample Opinion Piece
 - 33 | Sample Twitter Posts
 - 35 | Sample Facebook or LinkedIn Posts
 - 37 | Shareable Social Media Graphics

Why the focus on STEM?

Now more than ever, kids need to learn how to think carefully, critically, and creatively because we live in a rapidly changing world.

STEM is more than a specific set of classes. Through strong, relevant, and active STEM learning, students gain essential skills in critical thinking and problem-solving, stay engaged in school and the future, and experience the power of experimentation, learning from failure, and perseverance—all essential elements of a well-rounded education and a productive, fulfilling life.

Today's economy requires more education and skills learned through STEM than ever before. Employers want to hire workers with STEM skills, to fill jobs both in the rapidly-growing STEM sector and across all sectors, as essential critical thinking and problem-solving skills are necessary in virtually every job today. We must grow and nourish our students' STEM abilities if the U.S. is to remain a global leader.

And STEM helps promote equity and opportunity for all. No matter what a student's background or where they live, all students need to experience STEM in order to gain the skills they need to be successful in life.

Great STEM learning opens doors that create tomorrow's citizens, innovators, and problem-solvers.

Why This Moment?

The Every Student Succeeds Act (ESSA)
became law in late 2015, when President
Obama signed the bipartisan reauthorization
of the national education law and replaced
the No Child Left Behind Act.

The new law continues to require challenging academic standards and accountability systems in every state.

ESSA now puts greater emphasis on ensuring equity and explicitly calls for all students to have access to a well-rounded education.

ESSA also includes a significant shift of decision-making to the state and local levels, providing states with flexibility to set new policy and funding priorities. This also provides an opportunity to have an impact on the direction of ESSA implementation in every state.

Across the country, every state is working to implement ESSA. A key piece of this work is the development of a new Consolidated State Plan to be approved by the Governor and submitted to the U.S. Department of Education. State Education Agencies (SEAs) are gathering stakeholder input as they set these priorities and put the new law into action in the 2017-18 school year.

Making STEM a priority in every state under the new Every Student Succeeds Act can help ensure all our children have the opportunity to not only access a great education, but to pursue the college or career pathway of their choice.

The STEM community—fueled by 100Kin10 partners—is working to help make that happen. The goal is to ensure that great STEM teaching and learning are priorities in states across the nation under ESSA.

What can I do to help make STEM a priority?

Every state is in the process of developing their ESSA Consolidated State Plan that will set out the state's priorities in K-12 education.

All members of the STEM community can have an impact on that plan and future implementation of that plan—which will help ensure STEM learning is a priority—in a few important ways:

* Get involved in the State Education Agency "Stakeholder Engagement" process.

Join state and local conversations with stakeholder groups about ESSA implementation to let state education leaders know STEM should remain an educational priority.

* Comment on draft State Plans.

Review your draft state plan to see if great STEM teaching and learning are prioritized, and then provide comment to support or improve the draft.

* Contact your State Education Agency and Governor.

Every state's Chief State School Officer and Governor will approve their state plan before it is submitted to the U.S. Department of Education. These leaders are important decision-makers in ESSA process. It's important to voice your opinion before the plan is finalized—but remember to keep the conversation going throughout ESSA implementation and beyond, as regularly engaging policymakers is the best way to influence how education policy looks in practice.

* Write an opinion piece to inform others about STEM.

Let others know why STEM is important to student success—then let them know how they can get involved in promoting STEM.

* Elevate voices in the field.

Engage teachers and grassroots stakeholders to highlight why STEM is important in classrooms and to students.

Share stories about STEM successes, and join conversations on social media about STEM teaching and learning.

What should I be saying about STEM and ESSA?

There are several important messages to share about why STEM matters, how STEM is an important part of ESSA, and the impact a high-quality STEM education for all students can have on individual lives and the future of our nation.

- * STEM education helps ensure students have the critical thinking and problem-solving skills they need to succeed in school, work, and life.
- * Through high-quality STEM learning opportunities, students have access to a well-rounded and equitable education—and ESSA puts a greater emphasis on both of these goals than ever before.

ESSA provides states with flexibility to set new policy and funding priorities, which states can use to support STEM learning.

* High-quality STEM education is essential to a well-rounded education for all students.

STEM is a way of thinking and learning as much as it is a specific set of classes. It helps kids engage in school and learn important life skills, such as creativity, perseverance, and experimentation.

In addition to the arts, civics, and other academic areas, STEM helps promote a well-rounded education.

* Increased access to STEM learning promotes greater opportunity, fairness, and equity.

STEM learning not only provides interesting and engaging education opportunities, but also allows students to pursue a college or career pathway of their choice.

Increasingly STEM skills are needed across the workforce, and high-quality STEM education helps students gain the skills they need to be successful in life, no matter the career they choose.

No matter a student's background or where they live, all students should have access to high-quality STEM learning in and out of school.

Students from both rural and urban communities—and everywhere in between—need the opportunity to gain the skills they need to be successful in life.

In today's economy, employers are looking for workers with STEM skills.

STEM-related fields are the fastest growing job sectors in our economy.

In fact, over the next decade, there will be about 1 million more US jobs in the tech sector than computer science graduates to fill them—and just 25% of our nation's high schools offer computer science classes.

Millions of jobs are unfilled because today's workers do not have the skills employers are looking for.

Traditional STEM jobs aside, the majority of jobs in today's economy now require the knowledge, training, and skills gained through STEM.

* That's why making STEM a priority in every state under ESSA planning and implementation can help ensure all our children have the opportunity for not only a great education, but also to pursue the college or career pathway of their choice.

Who should I reach out to and what tools can I utilize?

As states develop and implement plans under ESSA, all members of the STEM community should champion STEM as an essential ingredient to a well-rounded and equitable education.

First, make sure you reach the right audience(s) with a tailored message. This grid will help you determine who you want to reach, and how you want to reach them. Then, use the tips and tools below, as well as the sample content at the end of this toolkit, to craft your outreach.

	Phone Call	In-Person Visit	Email	Testimony	Op-Ed	Social Media
Governors						
State Education Agencies Including Chiefs						
Engaged STEM Community including STEM Businesses						
District Leadership						
Teachers						
Parents						

Contacting your State Education Agency & Governor

State Education Agency officials—including Chief State School Officers—and Governors play an important role in developing and implementing state ESSA plans. Calls, in-person visits, and emails are all great ways to make a connection.

Personal conversations via phone or in-person make a difference. Activists and lawmakers say a drop-in visit or phone call can have more weight and be harder to ignore than an email or social media post. It is also impactful to speak with a member of the Chief's or Governor's staff, as they often lead the review and development of these plans. If you are not able to reach anyone in person, a voicemail will also be noted as stakeholder feedback.

Here are some steps for an in-person visit or phone call.

- Before you call or visit, look up what type of commitment the Chief or Governor has made to STEM in the past.
 - You may just need to call and thank them for their hard work to make a STEM a priority.
 - Did your governor mention STEM in his/ her State of the State? You can visit National Governors Association website to find a transcript or key takeaways from your Governor's 2017 State of the State.
- When you call or visit, inform the person you reach that you are a constituent and would like to discuss the role of STEM in the state's education plan.
 - Ask politely to speak with the staff who handles education.
 - You will need to give basic information including your name, address, the issue about which you are discussing, and your opinion.

- Talk about your mutual interest to help students.
 - Avoid talking simply about you or your organization, but the work you do for students.
- Thank the State Education Agency's or Governor's education representative for his/her time and indicate that you appreciate his/her willingness to listen and record your comments.
 - If you spoke with one of the education advisor's staff, be sure to record the name of the staffer and the day and time you spoke for future use and follow up.

If you are unable to visit in-person or make a phone call, emails are also great ways to reach your State Education Agency or Governor. Here are some simple guidelines for crafting your note.

- Start by thinking for a minute: Why is it important to me to prioritize STEM in the state plan, and ultimately the future of education in my state?
- Review the key messages to share (page 12) to understand the big ideas about STEM.
- ♦ Share a specific story or success, such as:
 - A story of an individual student who became engaged by or excited about STEM.
 - Your experience of how a specific professional development activity changed a teacher or a school that you support.
 - Data about how STEM learning has changed/ improved over the years in your school, community, or state.
- Check your email before you hit send. It should:
 - Make a good impression—check that your email is free of spelling and grammatical errors.
 - State what you are advocating for clearly and concisely.
 - Be personal! Explain why you care about this issue.

Crafting an Opinion Piece

The purpose of an op-ed or commentary piece is to frame the issue—explain why we're talking about ESSA and STEM; convince that STEM is an essential part of ESSA goals, not just an add-on; and make a call to action to make STEM a priority.

If you haven't done it before, getting an opinion piece published in a newspaper may seem daunting but there are a few tips that can help.

How to reach out to media:

Start by identifying your target outlets.

Think about who your audience is: who do you want to reach with your key messages? What newspapers or websites will those key audiences read?

- Find the contact information for the editor.
- Reach out to the editor and ask if they would be interested in your op-ed.

They may have specific suggestions for the frame of the piece.

How to write your op-ed:

Start by using the template included in the sample content (page 21).

Be sure to add stories and make the op-ed personal.

You can use data to bolster the stories you include. However, you don't want to use too many data points as the piece will lose a personal feel.

Try to work with a co-author on the op-ed. Co-authors can add additional credibility to your piece or offer a unique perspective on the topic.

How to submit your op-ed:

Submit the op-ed to the editor.

Include the piece in the body of an email, not as an attachment.

Call the editor to let them know you've submitted the op-ed.

Note that they may come back with edits; if they do, be sure to respond within 24 hours.

- If you do not hear back from the editor within a few days, call them again, and send a follow-up email.
- If the editor does not respond after two weeks, email them giving a deadline to respond.
 - If the editor does not respond or declines the piece, submit it to another outlet or post to your own blog. Alternatively, you can post to an open blog outlet such as Medium or your own organization's website. Also, co-posting with another author on a partner's website is a good approach.

Engaging on Social Media

Social media expands reach to more audiences, grows followers, and amplifies messages. Social media activity will help both grab the attention of key grasstops leaders and engage a larger group of STEM-invested stakeholders in spreading the word to prioritize STEM in ESSA state plans.

These tips will help you make the most of your social media efforts.

- Ensure meaningful engagement: Use the "6 E's of Engagement" to grab and keep your audience's attention.
 - Ease: make it easy for your audience to find content.
 - Elevate: showcase the great work taking place with your members and partners.
 - Empower: give your audience the tools they need to join in (i.e. links or hashtags).
 - Entertain: create fun and engaging content.
 - Educate: provide your audience with facts and information that may not already have and can use in the future.
 - Entice: drive your audience to take action by providing them with something in return (i.e. signing up for an email list to take part in a webinar).
- Upload graphics.

Attach a campaign graphic to each of your posts about the campaign across Facebook, Twitter, or LinkedIn.

Find tips for uploading photos on Facebook here. Find tips for uploading photos on Twitter here.

Tag key leaders in your state.

On Twitter and Facebook, we recommend tagging key leaders in your state, such as your Governor or State Chief School Officer.

- Nearly all Governors have public Facebook and Twitter profiles that you can tag in your posts to call on them to act.
- Include additional hashtags on Twitter.

When possible, in addition to the main campaign hashtag (#successwithSTEM), we recommend including other hashtags in your tweets related to the field.

Some of the most popular relevant hashtags are #STEM, #STEMed, and #ESSA. While including hashtags can help increase the reach of your posts, do not include more than two or three hashtags in a single tweet.

Be conversational and proactive: If someone responds to one of your social media posts, respond and direct them to the <u>Success With</u> <u>STEM website</u> with more information.

If someone on Twitter tags you in a tweet, respond to them saying thank you and/or retweet their tweet.

Additionally, you can search the #successwithSTEM hashtag on Twitter and proactively like or retweet posts from others talking about the campaign.

Time your posts.

Tweets sent out in the morning and late afternoon hours (during commuting hours) typically perform the best. With that in mind, we suggest posting tweets within those hours.

Additionally, tweets that are sent out during the weekdays typically receive higher engagement levels, especially within the education community.

Elevating Voices in the Field

State leaders need to hear directly from the field about why STEM is so critical for students and what is needed to best support excellent STEM learning. Below are several tips you can use on social media as you: (1) elevate voices from the field in STEM conversations and ESSA implementation, and (2) highlight STEM stories from classrooms and programs.

Determine your audience.

What voices do you want to highlight? Think about different types of people in the STEM field and why they would be strategic to elevate. Here are a few examples.

- Members or partners of your own organization
- Parents and families
- School administrators
- STEM education leaders and organizations
- STEM professionals and business leaders
- Students
- Teachers

Develop a thought-provoking question.

- Aim your question at your specific audience.
- Ensure that the question will lead to the kind of stories or content you hope to gather.
- Use these sample questions to get started.
- Why is quality STEM education so important?
- Why is STEM learning meaningful to kids?
- What opportunities does STEM education create?
- What does STEM learning look like in your classroom?
- Why are you proud to be a STEM teacher?

Blast your question.

Pose the question on any social media channels you use.

Reach out proactively to people in your intended audience on Twitter by tagging them.

Ask people to get involved by alerting them via email or through other newsletters.

Retweet responses on Twitter to elevate them.

Finish strong by fostering your community and extending the life of your content.

Respond to messages posted to your question, thanking community members for sharing their ideas and experiences.

Share responses directly with policymakers and other decision-makers via social media or through more traditional methods like email and phone call.

You can alert policymakers like Governors and Chief State School Officers to responses by tweeting directly at them.

Include the stories shared in materials you develop for promoting STEM teaching and learning.

Send a "recap" report with overview statistics and featured responses via email or newsletter to highly-engaged community members.

What should I do now that my ESSA state plan is going to be implemented?

Throughout the 2017-18 school year, state and local stakeholders will begin implementation of state ESSA plans. Engaging in that process is a key opportunity to promote STEM under ESSA and shape how ESSA comes to life in schools and classrooms.

This section of the toolkit was added in September 2017 to provide 100Kin10 partners and other stakeholders with information as they move into the next phase of ensuring STEM is a priority under ESSA. It also includes guidelines for engaging in ESSA implementation at the state and local levels.

The toolkit identifies opportunities for ongoing efforts to achieve the main goal of making STEM a priority under ESSA—including engaging in a continuous and ongoing manner with the state education agencies (SEAs) once the plans are finalized; supporting implementation of the new state plans to ensure STEM learning opportunities are prioritized; working with state-level implementation officials and districts on the specific elements they will implement; and maintaining partner and stakeholder engagement after state plans are finalized.

Background

Sixteen states and the District of Columbia submitted their state plans to the <u>U.S. Department of Education</u> in April 2017. The remaining 34 states chose to submit their plans in September 2017.

All SEAs that submitted their plans in April have undergone the peer review process and were provided with feedback, clarifying questions, or a request for additional information by the U.S. Department of Education, and several have received final approval. The status of a state's plan can be found here at the U.S. Department of Education website. The plans that are submitted in September will receive similar review and feedback in the coming months.

Under ESSA, there are several areas that allow or encourage the use of federal funds to support STEM education. These include:

- Title I, Part B: State Assessment Grants
- Title II, Part A: Supporting Effective Instructions
- Title II, Part B: National Activities
- Title IV, Part A: Student Support and Academic Enrichment Grants
- Title IV, Part B: 21st Century Community Learning Centers

Several resources have pointed to more specific opportunities for STEM in the policy. <u>Guidance</u> released earlier this year from the U.S. Department of Education has suggested additional areas where STEM can be supported. These examples fall into the following categories:

- Increase students' equitable access to STEM courses and experiences, including out-of-school programs, STEM-themed schools, and career pathways
- Support educators' knowledge and expertise in STEM disciplines through recruitment, preparation, support, and retention strategies
- Increase student access to materials and equipment needed to support inquiry-based pedagogy and active learning

What will we find in state plans?

The non-profit education organization Achieve issued a <u>landscape analysis</u> that looks closely at the opportunities afforded for STEM and science education under ESSA. Their report found that, of the states that submitted ESSA plans in the first round of review, more than half proposed the inclusion of science assessment results as part of their accountability systems, signaling the importance of science in student learning and school outcomes.

And in a July 2017 <u>review of state plans</u>, Education First identified four high-impact policies that have trended throughout state plans, including:

- Inclusion of state science assessment in accountability systems
- Inclusion of Advanced Placement (AP) or International Baccalaureate (IB) indicators in accountability systems
- · Inclusion of career and technical education (CTE) indicators in accountability systems
- STEM elements in 21st Century Community Learning Centers (21st CCLC) which support afterschool/out of school programs

Beyond the State Plans: Engagement around Implementation

Implementation of these state plans begins in earnest this school year (2017-18), and stakeholders—such as SEAs, district leaders, and school leaders—will be looking to enact new policies and to better understand new or shifted priorities.

This provides a prime opportunity to ensure stakeholders understand how STEM learning opportunities were included in the state plan and how STEM can be prioritized in this next phase of work, as:

* States will continue to develop programs and policies under ESSA.

States are required to consult with stakeholders during "design, development, and implementation" of state plans.

- * Local Education Agencies (LEAs), the district, and school-level leaders will also need to consult with stakeholders about implementation of the plan.
- * LEAs will have new, specific responsibilities under ESSA, including:

Developing plans for low performing schools, choosing high school assessments, implementing the Teacher and School Leader Incentive program, and administering grants including Title IV funding. The Council of Chief State School Officers released the tool A Guide to State Educational Agency Oversight Responsibilities under ESSA which reviews the role of the state in the local implementation of ESSA programs.

There are several issues that can be highlighted during these engagement efforts, including:

Defining the details of the state plan.

Many specifics in the state plan have yet to be developed. Notable examples are the new accountability systems—many of which include the use of science assessment without detailing how that will occur—or call for advanced STEM coursework without identifying specifics.

* Highlighting feedback from peer reviewers.

Peer reviewers offer their feedback on each state's plan, which is made public as part of the Department's response to each state. Stakeholders can use these comments from peer reviewers to advocate for changes.

Advocating for funding for grant programs.

Federal grant funding, particularly Title II and Title IV, has not yet been finalized by the U.S. Congress. Advocacy will need to be conducted at the federal level.

* Supporting the continuation of successful programs.

Many states and districts have already been implementing high-quality STEM learning opportunities and support for STEM teachers, and will need ongoing support to continue these programs under ESSA.

Providing information and raising awareness.

Many stakeholders will not yet be aware of what ESSA is and how STEM fits into ESSA. This is an opportunity to provide general information as more stakeholders focus on this for the first time, including the media (see below).

Mainstream media reporting of ESSA has been minimal to date. Recent analysis of ESSA media coverage suggested that reporters have a hard time finding a straightforward way to cover ESSA implementation. To help reporters cover ESSA—and at the same time boost awareness of STEM—you can provide media with story ideas about STEM as an illustration of what is or could be new in the classroom under ESSA.

How can I engage in implementation?

The goal of the stakeholder engagement process is to build local capacity to implement innovative and ambitious strategies for meeting the needs of all students under ESSA.

As implementation begins, each stakeholder in the education system will have a different role to play. SEAs, school districts, and individual schools will be tasked with making decisions about programs, resource allocation, assessments, and accountability. Districts and other LEAs will engage in planning processes around issues impacting their schools, while schools will be required to develop and implement site-specific plans. By arming your members, parents, and educators with information about STEM opportunities in ESSA, they will be able to contribute to each of these conversations.

The Council of Chief State School Officers (CCSSO) worked with Partners for Each and Every Child and a collaborative of other organizations to develop stakeholder engagement guides including <u>Let's Get</u> <u>this Conversation Started</u> and <u>Meaningful Local Engagement Under ESSA</u>. These guides provide tools, examples, and resources to assist in ESSA implementation.

Who should I be engaging in this process?

- Your own members or constituents
- Educators
- School leaders including principals and curriculum leads
- District leaders including superintendents
- State education leaders including chiefs and SEA staff
- STEM business leaders
- Informal STEM institutions
- Parents

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What strategies might I use?

There is no right way to engage stakeholders. Today's technology gives us many options for reaching people. Strategies could include:

- Online engagement such as web- or emailbased discussion
- Mass surveys conducted online, in-person, or via phone
- Focus groups or small group meetings
- Public meetings or forums for dissemination of information and opinions
- Direct involvement of stakeholder experts to investigate issues, draft reports and policies, or collaborate with the school, LEAs, or SEAs
- Cross-sector partnerships or joint projects around a particular commitment or reform
- Webinars done live or pre-recorded
- Social media for input and networking among families and community members

What are some examples of engagement that 100Kin10 partners have implemented?

100Kin10 partners have already begun to put into motion strategies around ESSA implementation. Below are a few examples of this work.



ESSA Review Toolkit: National Council of Teachers of Mathematics and Math Teachers' Circle Network

The National Council of Teachers of Mathematics (NCTM) and Math Teachers' Circle Network, with support from 100Kin10 and in partnership with the Association of State Supervisors of Mathematics (ASSM), have developed an ESSA Review Toolkit to provide an entry point for members, affiliates, and mathematics champions to create and take part in a working team to review their state ESSA plans during public comment periods. The partnership between NCTM and Math Teachers' Circle Network developed after attending a 100Kin10 Solution Lab meeting in April 2017 and discovering a shared desire to ensure that state plans support teachers and the teaching of mathematics. NCTM and Math Teachers' Circle Network realized the need for a resource that provides tips, a reading guide, and an analysis guide to help plan, run, and share results from an effective ESSA review team meeting.

A lesson learned from this project is that awareness and education is still needed with members, affiliates, and the broader mathematics community about ESSA generally. Many recognize ESSA by name but do not know much about it or the impact that these new policies will have on their state, districts, and schools. In their outreach about the toolkit, NCTM and Math Teachers' Circle Network have worked to connect ESSA state plan priorities to the interests of their stakeholders. The goal is to highlight the opportunities that stakeholders can take advantage of and ultimately to catalyze people to share best practices across communities.

* Building Relationships with SEAs through ESSA State Plan Feedback: Washington STEM

Throughout the summer 2017, Washington STEM—with support from 100Kin10 and STEMx—regularly communicated with the Washington Office of Superintendent of Public Instruction (OSPI) to submit feedback regarding their revised state plan. This outreach culminated in the submission of a public comment letter, which outlined short-term opportunities to better highlight STEM in the plan.

Washington STEM's immediate goal around ESSA has always been to provide more ways for students to benefit from STEM education. The long-term goal is to develop a stronger relationship OSPI as the Superintendent was recently elected to the position.

Washington STEM and the organization's ten regional STEM networks across the state are motivated to elevate the topics of career technical education and STEM as a policy priority. Through ESSA—and particularly the implementation of ESSA—Washington STEM looks to continue the conversation about how to move students toward success.

What are some examples of engagement that 100Kin10 partners have implemented? (continued)

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Preparing Science Teachers: National Science Teachers Association

The National Science Teachers Association (NSTA) has been working with their state chapters of teachers to help state chapter leaders better understand ESSA and get involved in reviewing and commenting on their state ESSA plans. To do this, NSTA has released detailed ESSA resources such as a PowerPoint overview and their Communications, Legislative & Public Affairs (CLPA) information center. NSTA partners with all 50 state associations of science teachers and science teacher leader organizations—such as National Science Education Leadership Association—to help classroom teachers, teacher leaders, and science administrators to be more knowledgeable about how STEM fits into their state ESSA plans.

This coming year, NSTA is planning for a series of webinars and additional information items to help teachers get involved with ESSA implementation.

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State ESSA Planning: National Center for Technological Literacy/Museum of Science, Boston

The National Center for Technological Literacy (NCTL)—an initiative of the Museum of Science, Boston—has been active in ESSA outreach, initially sending letters to the Governor and Lt. Governor, the Education Secretary, and Education Commissioner. This outreach led to individual meetings with the Lt. Governor, the Secretary of Education, and contacts with key staff at the Department of Elementary and Secondary Education. Museum advocacy staff also met the Massachusetts General Assembly Education Committee Co-Chair regarding possible support for including science as a core academic indicator in the ESSA state plan and shared the NSTA letter.

This fall, the NCTL will be planning a State House briefing to highlight their PK-12 engineering curricula and teacher professional development programs they offer in the state and around the nation. NCTL is also working to reinstate funding for the Museum's Science Ambassadors program, which relies on Title IVA funds. Science Ambassadors are a group of talented science educators trained and made available to assist schools and districts to understand the impact of the 2016 Science Technology Engineering (STE) standards on their curriculum and instruction efforts. In partnership with the Museum, Ambassadors are prepared to deliver presentations to schools across the state on the key shifts and considerations for transition and implementation of the STE standards. In addition, they share and discuss the many helpful open-source resources available, including the Engineering is Elementary PD video series.

As a next step, NCTL will be contacting other 100Kin10 partners in Massachusetts to determine if they can form a team to collectively support STEM implementation in the state.

Are there samples I can look at?

The following section illustrates how to put the messaging and tools described above into practice across a variety of channels.

You will find guiding commentary in the margins to help you navigate the piece and develop your own content, but please also know you can pull phrases directly from the samples. Just be sure to write opinion pieces in your own words.

There is also a large bank of social content and graphics that you are encouraged to directly copy and use.

Phone Script

Contacting your State Education Agency or Governor

I'm, a [insert your role: teacher/education leader/STEM expert] who is really passionate about STEM education. Can you please connect me with the right person to talk about the ESSA state plan development?	Call the main number at the State Education Agency or Governor's office.
I'm, a [insert your role: teacher/education leader/ STEM expert] who is really passionate about STEM education. I know you are developing the state plan right now and I'm eager to make sure that STEM education is included and prioritized.	Talk to the State Plan Manager or Governor and introduce yourself.
We know that STEM education helps ensure students have the critical thinking and problem-solving skills they need to succeed in school, work, and life. Making STEM a priority in [our state] under ESSA can help ensure all our children have the opportunity not only to receive a great education, but also to pursue the college or career pathway of their choice.	Make the case.
I hope that STEM learning is represented in our overall state vision. Additionally, STEM should have priority in Title II programs and funding to help teachers in these critical areas. And in Title IV where we know that high-quality STEM education is essential to a well-rounded education for all students.	Be specific.
Are there ways that STEM stakeholders can help you in writing and reviewing the plan to ensure STEM is available for young people in our state?	Offer to help.

Email Template

Contacting your State Education Agency or Governor

Dear [formal title/name of official]:

I'm writing today because I believe that making STEM a priority in [your state] under the new Every Student Succeeds Act can help ensure all our children have the opportunity for not only a great education, but also to pursue the college or career pathway of their choice.

I am a mathematics teacher with more than 10 years of experience in middle schools. I care about our children's future and know they need a strong mathematical foundation to develop the critical thinking and problemsolving skills they need to succeed in school, work, and life.

I want to share some interesting data that shows with more hands-on learning experiences, [example: our students increased their science scores on states tests by XX%].

As you develop the ESSA state plan, I hope you will think about me and my classroom. I know that STEM learning opportunities and support for STEM teachers are mentioned specifically throughout the new law and its guidance. And I understand that ESSA provides states with flexibility to set new policy and funding priorities, and you can do that to support STEM learning.

We need strong STEM learning today for our future tomorrow. STEM is critical for a well-rounded education for all students. It is a way of thinking and learning as much as it is tied to a specific curriculum. It helps engage kids in school and learn important life skills, such as creativity, perseverance and experimentation. It is fundamental and I hope our state plan in [your state name] will reflect that.

Thank you for all you are doing to make education stronger in [our state]. For more stories about STEM learning, don't hesitate to contact me at [contact info].

Sincerely,

[signed]

Explain your reason for writing.

Introduce yourself and why STEM matters to you.

Capture their imagination with a story or data point.

Help tie their work to your work.

Reinforce your request.

Thank them and share your contact information.

Sample Opinion Piece

Positioning STEM as an essential part of ESSA goals

Audience

State leaders, the engaged public, stakeholders who will advocate for STEM in ESSA.

Author

Organization leader, perhaps paired with a business leader.

Headline suggestions

Offer a headline for your op-ed that highlights student success with STEM or STEM and ESSA.

Modify this sample to make it your own

Every student deserves a great education, one in which they gain skills they need to succeed in school, work and life. Now more than ever before that success depends on ensuring students learn how to think critically, solve problems, work collaboratively—the skills that are needed for virtually every job in the future and which prepare young people for success no matter what career path they choose in this rapidly changing world.

That's why students need more education in STEM than ever before. High-quality STEM education—science, technology, engineering, and math—helps ensure students learn the skills that are in such high demand in today's workforce. STEM jobs are among the fastest-growing and highest-paying jobs in America. And even if a young person never dons a lab coat or develops software, STEM is still essential: by some estimates, nearly 80 percent of all new jobs created nationwide over the next decade will require STEM skills.

It's no wonder that 95% of parents say they want STEM to be a priority in school—yet fewer than half think it is. But we have a unique opportunity to change that right now—and the STEM community is working to help make that happen. [OUR ORGNIZATION/ COALITION] is working to ensure more students have more STEM learning opportunities. We want to ensure that great STEM teaching and great STEM learning are a priority in every state across the nation under the new Every Student Succeeds Act (ESSA). We believe Every Student Succeeds with STEM.

ESSA replaced No Child Left Behind as the nation's education law. While the new law continues to require challenging academic standards and accountability systems in every state, it explicitly calls for all students to have access to a well-rounded education, and puts greater emphasis than before on ensuring equity. STEM opportunities are critical to achieving both those goals.

STEM is more than a specific set of classes. Through strong, relevant, and active STEM learning, students gain essential skills, stay engaged in school and the future, and experience the power of experimentation, learning from failure, and perseverance—all essential elements of a well-rounded education, which

Open the piece by making a connection with the audience on a shared common purpose: student success.

Explain why STEM matters to students, employers and the economy.

Early in the piece, it is good to suggest the urgency of issue.

It is important to introduce yourself and establish your credibility: explain who you are and what you do for students.

Many readers will need an explaination of what ESSA is. This section defines ESSA and does so in a way that presents STEM as central to it...

...How STEM is central to a wellrounded education in the 21st Century along with education in the arts, civics and other academic areas, are key to a productive, fulfilling life.

And increased access to STEM learning promotes greater opportunity and equity. Too many students are being left out and left behind in today's economy. Women and people of color are underrepresented in STEM occupations. Providing all students, not just a few, opportunities to gain these skills—no matter what a student's background or where they live—helps promote equity.

ESSA also includes a significant shift of decision-making to the state and local levels, providing states with flexibility to set new policy and funding priorities. Right now our state, like every state across the country, is developing our first ever ESSA Consolidated State Plan, which will set out our state priorities in K-12 education as we put the new law into action in the 2017-18 school year. As our state develops new plans under ESSA, we have an important role to play to keep STEM teaching and learning a top priority for students.

Here in [STATE], we have a [proud tradition of / desperate need for] STEM education. [State specific context added here could include: a state-specific stat on STEM needs; STEM education or economic success to date; reference an existing state STEM plan or vision; reference to STEM in the Governor's State of the State.]

Our State Board of Education, State Superintendent, and Governor can help make that vision a reality by insisting that STEM is a top priority and creating an ESSA plan that reflects the importance of STEM education for our state. In addition to making a clear commitment in our state plan to STEM education, we believe there are four specific areas that should be included:

- We must ensure equitable access to high-level STEM courses such as computer science and advanced math, so all students regardless of income or geography have access to the opportunities these subjects provide;
- We should use federal funding to increase teacher recruitment, preparation and professional development, with a focus on active learning methods;
- STEM should be included as part of the new school accountability system as part of the career readiness measure;
- We should use the new federal Student Support and Academic Enrichments
 Grants to provide schools and districts the resources to expand access to
 STEM education, technology, and programs that support a well-rounded
 education.

Making STEM a priority in every state under the new Every Student Succeeds Act will help ensure all our children have the opportunity for not only a great education, but also to pursue the college or career pathway of their choice. We urge our state leaders to seize this opportunity to set our state on a path to provide greater opportunities for our students in school and work today—and our economic prosperity for the future.

...And how STEM can help promote equity.

Some audiences will need an explanation of ESSA plans and the state's leadership role in developing them. Depending on the state, some may wish to mention the stakeholder process.

For state networks and those writing to influence state policy, state-specific context goes here.

In this section, lay out the specific actions you want someone to take.

These are broad policy areas to advocate for. Any state-specific policy agenda should be used here.

The suggestions listed here are topics that have been raised on webinars or in policy guidance memos, and which some partners have used in their stakeholder comments.

Close with a Call to Action. In some op-eds, the call to action will be different. For example, to invite stakeholders to get involved in the effort.

Sample Twitter Posts

General posts

Help us make #STEM education a priority for ESSA state plans in every state! #SuccesswithSTEM http://www.successwithSTEM.org/

#STEMed helps students develop the critical thinking & problem-solving skills they need to succeed. #SuccesswithSTEM http://www.successwithSTEM.org/

#STEM education creates opportunities for all students to be the leaders of tomorrow. #SuccesswithSTEM @Success_STEM http://successwithSTEM.org

Join #SuccesswithSTEM and help make STEM a priority in your state #ESSA plan. @Success_STEM http://www.successwithSTEM.org/

Posts aimed at engaging policymakers

Together, we can tell leaders that quality STEM education should be a priority for our students. #SuccesswithSTEM http://www.successwithSTEM.org/

State leaders can make a difference in our students' futures. Prioritize #STEM in your ESSA plan. #SuccesswithSTEM http://www.successwithSTEM.org/

Sample Twitter Posts

Posts aimed at engaging teachers

Let's make sure #STEM teachers have the resources they need to prepare our students for the future. #successwithSTEM www.successwithSTEM.org

Teachers: we want to hear from you! Tell us why is STEM learning meaningful to your kids? #successwithSTEM @success_STEM

Teachers: we're asking what #STEM means to you and your students! Share your stories today. #successwithSTEM @success_STEM

Prioritizing #STEM education under #ESSA means supporting our STEM teachers, too! Get involved with #success #STEM. @success #STEM

Retweet to show your support for #STEM teachers making a difference in students' lives! #successwithSTEM @success_STEM

Sample Facebook or LinkedIn posts

General posts

Help us make STEM education a priority for ESSA state plans in every state! See how you can get involved at successwithSTEM.org. #SuccesswithSTEM

STEM education helps students develop the critical thinking and problem-solving skills they need to succeed. #SuccesswithSTEM http://www.successwithSTEM.org/

STEM education opens doors for all students to be the innovators and problem-solvers of tomorrow. #SuccesswithSTEM http://www.successwithSTEM.org/

Join #SuccesswithSTEM and help encourage your state leaders to make STEM learning a priority in your state ESSA plan. http://www.successwithSTEM.org/

Posts aimed at engaging policymakers

Together, we can tell leaders that quality STEM education should be a priority for our students. Share this post to spread the word! #SuccesswithSTEM http://www.successwithSTEM.org/

State leaders have the power to make a difference in our students' futures. We urge you to make STEM a priority in your ESSA plan. #SuccesswithSTEM http://www.successwithSTEM.org/

Sample Facebook or LinkedIn posts

Posts aimed at engaging teachers

STEM teachers are crucial in helping today's students become tomorrow's leaders. Help us make sure STEM education and support is a priority for ESSA plans in every state. #SuccesswithSTEM http://www.successwithSTEM.org/

Prioritizing STEM education under ESSA state plans means supporting our STEM teachers, too! Get involved with #SuccesswithSTEM. http://www.successwithSTEM.org/

Social Media Graphics

Post these graphics directly to social media via the Every Student Succeeds with STEM engagement hub.







Social Media Graphics

Post these graphics directly to social media via the Every Student Succeeds with STEM engagement hub.

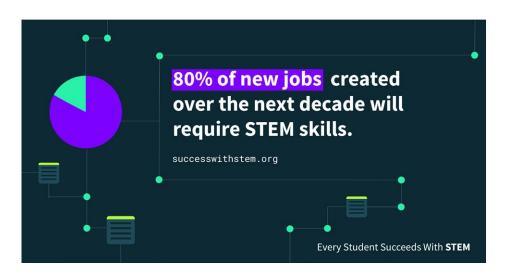


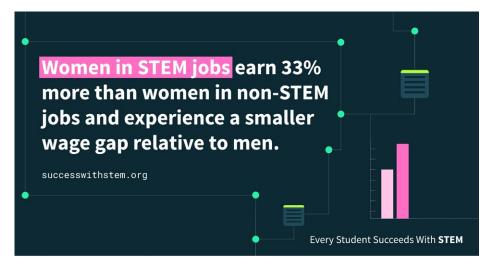


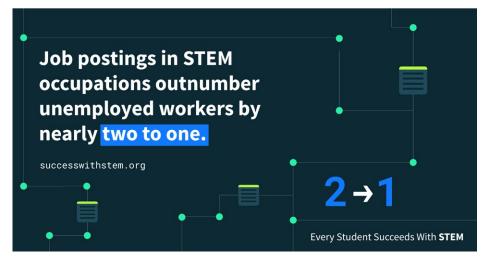


Social Media Graphics

Post these graphics directly to social media via the Every Student Succeeds with STEM engagement hub.







This toolkit was developed by the Every Student Succeeds with STEM campaign.

The Every Student Succeeds with STEM campaign emerged through a Solution Lab—a 100Kin10 convening that begins with deliberation, expertise, and shared learning, and moves to collaborative action: partners co-funding the creation of a concrete product, strategy, approach, or intervention that's beyond the capacity of any single partner to afford or design on their own. Solution Labs are a method of responding to big challenges with commensurately big, coordinated responses, instead of going at it alone.

About 100Kin10

100Kin10 is a 280+ member network responding to the moonshot call for 100,000 new, excellent STEM teachers in America's classrooms by 2021 to educate the next generation of innovators and problemsolvers. Through their pioneering networked impact approach, 100Kin10 encourages multisector collaboration and provides the vision and resources to help nonprofits, foundations, academic institutions, businesses, and others meet their ambitious commitments and address the systemic challenges to training and retaining excellent STEM teachers. More information is available at www.100kin10.org.

About the Co-investing Partners:

Almost 20 100Kin10 partners jointly invested to bring this toolkit to life, including: American Federation of Teachers, Arizona Science Center, Battelle, STEMx, BSCS, California State University, Math for America, Math Teachers Circle Network, Museum of Science and Industry, National Alliance for Partnerships in Equity, National Center for Technological Literacy, Museum of Science Boston, National Council of Teachers of Mathematics, National Science Teachers Association, Rider University, Teach For America, The UTeach Institute, TRC—UT Austin, Washington STEM, Western Governors University.

About Collaborative Communications

Collaborative Communications is dedicated to developing cooperative solutions to education and related workforce and community challenges.

Collaborative uses partnerships, deep knowledge of a variety of education issues, and the technical application of a full slate of communications skills to get results for our clients. Since its inception in 1999, all of Collaborative's work has been focused on education and learning, pre-K through 20, in and out of school. Collaborative has a range of experience in afterschool and expanded learning opportunities; parent and community engagement; college success; assessment; teacher preparation; principal leadership; school reform; and more.

About Social Driver

Social Driver is an award-winning digital consultancy that develops interactive technology and launches social communication plans. As a leader in web development and digital strategy consulting, we believe that people and organizations achieve progress through enhanced connections, conversations and interactions. Social Driver helps organizations engage their audiences to spur advancement and move toward success. Through the use of social media, web technologies, and custom development, Social Driver builds effective online communication platforms and help clients apply best practices.