Smithsonian Science Education Center

2021-2026 Strategic Plan

Smithsonian
Science Education Center

Smithsonian Science Education Center Strategic Plan: 2021-2026

Opening Letter from Director

It has been 35 years since our center was established in 1985 as the National Science Resources Center under the sponsorship of the National Academy of Sciences, Engineering, and Medicine (NASEM) and the Smithsonian Institution (SI). Today we are operated fully by the Smithsonian and known as the Smithsonian Science Education Center (SSEC). We serve K-12 students and teachers, school districts, state education agencies, and ministries of education throughout the world. In 2020 alone, we provided our curriculum materials, digital resources, professional development, leadership development (through our Leadership and Assistance for Science Education Reform [LASER] model), and outreach to over 3.7 million people and growing.

The new release of our Smithsonian Science for the Classroom K-5 curriculum, for example, and its accompanying literacy series, Smithsonian Science Stories, captures over 600 examples of the Smithsonian's research and collections. We have supported over 83 school districts through our STEM Diversity initiative; held over 94 Strategic Planning Institutes that supported over 940 school district or regional teams from across the globe; produced hundreds of online STEM games, native applications, simulations, 3D makerspace activities, eBooks, and videos that draw on Smithsonian resources; and established numerous long-term strategic partnerships in the United States and abroad leading to significant improvements in student achievement and teacher practice. We remain strong and continue to grow.

And now, it is time to look forward. Through this new 5-year strategic plan, our vision is that by 2026, all K-12 students and teachers are engaged, inspired, and equipped to act on scientific issues that affect our nation and world. We will accomplish this vision through our three programmatic goals by promoting active, authentic, inquiry-based STEM teaching and learning; ensuring diversity, equity, accessibility, and inclusion in STEM education; and advancing K-12 STEM education for sustainable development. Everything we do will be grounded in research and best practices.

Moving forward, we will revise the wording of our mission, moving away from our 35-year mission "to transform the teaching and learning of science," and will become an organization of the Smithsonian Institution dedicated to its new mission: "transforming K–12 Education through Science™ in collaboration with communities across the globe." We will align our core values with those of the Smithsonian to ensure excellence in everything we do.

In addition, we are committed to establishing internal operational and pan-institutional goals that allow us to collaborate with our Smithsonian colleagues, federal partners, and National Academies and InterAcademy Partnership (IAP) colleagues to translate their research and collections into meaningful tools and convenings for K–12 teachers and students.

At the heart of our work is the idea that all young people—regardless of gender, race, geography, native language, ability, or socioeconomic status—should be given opportunities to learn about the socio-scientific issues that challenge us. The Smithsonian, through SSEC, plays an active role in sparking students' and teachers' interest in STEM to ensure a sustainable and scientifically literate planet. We look forward to working with you to achieve our goals.

Dr. Carol O'Donnell
Director
Smithsonian Science Education Center

Mission, Vision, Values

Mission

Transforming K–12 Education Through Science™ in collaboration with communities across the globe.

We bring Smithsonian science to classrooms around the world through standards-aligned curriculum, digital content, and education for sustainable development, all supported by professional and leadership development. These products and programs reach millions of students nationally and abroad.

Vision

By 2026, all K–12 students and teachers are engaged, inspired, and equipped to act on scientific issues that affect our nation and world.

We will accomplish this vision by promoting active, authentic, inquiry-based STEM teaching and learning; ensuring diversity, equity, accessibility, and inclusion in STEM education; and advancing K–12 STEM education for sustainable development.

Values

The SSEC aligns its work with the following core values to ensure excellence in everything we do:

- **Discovery**: We explore ways to bring to light new knowledge and ideas and better ways of transforming education through imagination and innovation.
- **Diversity**: We acknowledge that richness inherent in differences promotes equity, accessibility, and inclusion.
- **Integrity**: We carry out all our work with the greatest responsibility, accountability, and respect.
- **Service**: We strive to benefit the public and our stakeholders by delivering the highest-quality products and services.
- **Collaboration**: We create and maintain mutually beneficial partnerships to increase the reach and impact of our work.

Our Goals

The Smithsonian Science Education Center's vision is that by 2026 all K-12 students and teachers are engaged, inspired, and equipped to act on scientific issues that affect our nation and world.

We will accomplish this vision through our goals, objectives, and strategies while keeping in mind our strengths, weaknesses, opportunities, and threats:

Programmatic Goals, Objectives, and Strategies: 2021-2026

Programmatic goals are goals that align with our core program areas: curriculum development, digital development, professional development, and leadership development.

Operational Goals, Objectives, and Strategies: 2021-2026

Operational goals are clearly defined functions within SSEC that ensure SSEC can pursue its mission, vision, values, goals, and objectives. They align with the work of our Finance and Administration, Human Resources Office for Equal Employment and Opportunity, Advancement and Partnerships, and Executive Office. It is our promise to transform SSEC's effectiveness and excellence, and position SSEC for success by achieving its organizational imperatives.

Pan-institutional Goals, Objectives, and Strategies: 2021-2026

We are committed to establishing pan-institutional goals that allow us to collaborate with our Smithsonian colleagues, federal partners, and National Academies and IAP colleagues to translate their research and collections into meaningful tools and convenings for K–12 teachers and students to spark their interest in STEM; to ensure diversity, equity, accessibility, and inclusion in K-12 STEM education; and to ensure a sustainable and scientifically literate planet.

Appendix

Summary of our Strengths, Weaknesses, Opportunities, and Threats (SWOT)

A. Programmatic Goals, Objectives, and Strategies: 2021-2026

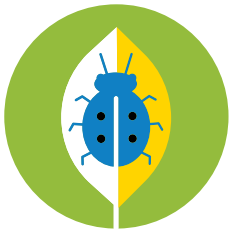
Programmatic goals are goals that align with our core program areas: curriculum development, digital development, professional development, and leadership development.

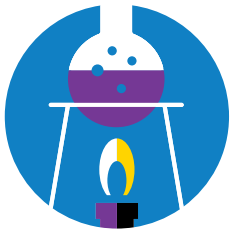
Goal A1: Promote active, authentic, inquiry-based K–12 STEM teaching and learning.

Objective A1.1. Provide a high-quality, inquiry-based, three-dimensional science and engineering curriculum to students that translates the research and collections of the Smithsonian into meaningful tools and content for K–12 teachers and students.

Strategies:

a. **Year 1:** Publish four kindergarten modules.
b. **Year 1:** Carry out market research to identify a market opportunity for a three-dimensional high school curriculum.
c. **Years 1-5:** Continuously update our published grade K-8 modules to respond to market needs.
d. **Years 2-5:** Develop and publish a three-dimensional curriculum for high schools in partnership with a selected publisher.





Objective A1.2. Address the digital divide by developing content that fulfills the broad needs of students and teachers across the low-tech to high-tech spectrum.

Strategies:

a. **Years 1-2:** Disseminate Smithsonian Science Stories eBooks on Apple Books, Google, and Amazon.
b. **Years 1-3**: Provide virtual STEM classes for students in high-needs areas across the country in both English and Spanish.
c. **Years 2-5:** Develop digital resources for Smithsonian Science for the Classroom and Smithsonian Science for Global Goals.
d. **Years 2-5:** Develop Smithsonian Science app that serves as a library of SSEC resources for mobile devices
e. **Years 1-5:** Develop and test low-tech to high-tech Smithsonian Science for Makerspaces activities in both English and Spanish that address the integration of computational thinking and STEM along the technology spectrum.

Objective A1.3. Conduct programs that support the professional growth of K–12 teachers and aid them to implement authentic STEM experiences within the classroom.

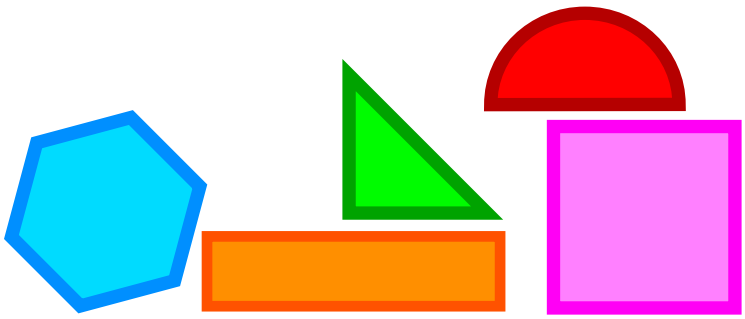
Strategies:

a. **Years 1-4:** Develop and disseminate online content and pedagogy professional development courses.
b. **Years 2-5:** Develop and disseminate hybrid (online and face-to-face) professional development courses.
c. **Years 2-5:** Host Smithsonian Science Education Academies for Teachers (SSEATs).
d. **Years 2-5:** Build a revenue stream for professional services by offering a suite of online courses at a cost per teacher per professional development offering.

Objective A1.4. Provide leadership development services to assist districts, regions, states, and countries in achieving their own unique goals.

Strategies:

a. **Years 1-5:** Implement a Smithsonian Science Leadership Development and Strategic Planning Institute each year in Washington, DC, or a virtual Smithsonian K–12 Science Education Action Planning Institute.
b. **Year 2-5:** Develop, pilot, and refine criteria and a process for establishing a Smithsonian STEM Schools of Distinction program that builds on SSEC's systemic reform model, creates a network of schools nationally and internationally, and provides opportunities for schools to connect to Smithsonian and Smithsonian Affiliate resources.
c. **Years 2 and 4:** Implement a Next Steps Institute in various regions of the country.
d. **Years 1-5:** Engage at least 20 district teams per year as they work to improve systemic challenges they face in implementing STEM within their regions.
e. **Years 1-5:** Build a revenue stream for virtual leadership development offerings at a cost per participant or team per course.



Objective A1.5. Research and evaluate the impact and efficacy of products and programs developed by the SSEC.

Strategies:

a. **Years 1-3:** Through an independent evaluation, assess student and teacher outcomes from participating schools in North and South Carolina in partnership with community collaborators.
b. **Years 1-5:** Gather formative data on feasibility and usability of each product and program (virtual or in-person) to inform updates.
c. **Years 3-5:** Engage in research focused on student achievement and skills or teacher professional learning to determine efficacy of the work.
d. **Years 3-5:** Disseminate and/or publish results at conferences and in education journals.

Goal A2: Ensure diversity, equity, accessibility, and inclusion in K–12 STEM education.

Objective A2.1. Address the student-teacher diversity gap in schools by increasing diversity in the STEM teaching workforce through recruitment, retention, and pathways to leadership.

Strategies:

a. **Years 1-5:** Provide a Leadership Summit for district and school level teams to create a logic model to drive action to attract and retain STEM teachers from underrepresented groups resulting in 30,000 new and existing teachers by 2030.
b. **Year 1:** Offer professional development focused on culturally relevant pedagogies for teachers.
c. **Years 1-5:** Develop and implement a leadership pathway in collaboration with an advisory committee of experts to provide leadership skills and mentorship to teachers from diverse backgrounds.

Objective A2.2. Provide strategies for teachers and school leaders to ensure accessibility in STEM classrooms by integrating inclusive and universal design practices into instruction.

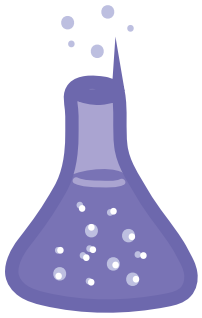
Strategies:

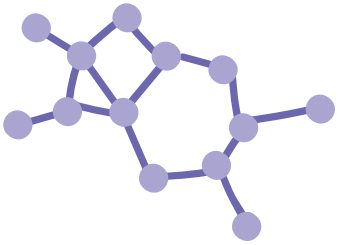
a. **Year 1:** Develop a workbook of teacher inclusive and universal design strategies and integrate inclusive and universal design practices into SSEC's STEM curriculum with the aid of District of Columbia Public Schools (DCPS) teachers in DCPS schools.
b. **Year 1:** Provide a Leadership Summit for district and school level teams to create a logic model to drive action toward systemic change to ensure accessibility and inclusion in STEM classrooms.
c. **Years 2-5:** Expand SSEC's accessibility efforts tested in Year 1 to include five new districts throughout the United States in collaboration with Smithsonian Affiliates.

Objective A2.3. Provide STEM resources for all students, especially those that foster girls' interests in careers in STEM fields.

Strategies:

a. **Years 1-5:** Support girls (and boys) of color in STEM through public-private partnerships to address the demographic gaps in the STEM workforce.
b. **Years 3-5:** Work in partnership with the Smithsonian's American Women's History Initiative and a selected publisher to publish a series of illustrated nonfiction books for elementary students on women of color in STEM.





Objective A2.4: Provide content that is accessible to high-needs students to ensure that they have access to high-quality STEM content remotely.

Strategies:

a. **Year 1-3:** Disseminate Smithsonian Science Stories printed books and eBooks to students in high-needs areas across the country in both English and Spanish.
b. **Years 2-5:** Scale up Smithsonian Science Summer School (S4) in partnership with Horizons National and Smithsonian Affiliate museums to expand DCPS efforts into other high-needs areas across the country.
c. **Years 1-5:** Ensure that all SSEC resources are accessible to all students including students with disabilities.

Objective A2.5. Research and evaluate the impact and efficacy of products and programs developed by the SSEC.

Strategies:

a. **Years 1-5:** Gather data from participants of the K–12 STEM Diversity Summit regarding implementation of their action plan to better understand the dynamics of systemic change.
b. **Years 1-5:** Ensure that all research grants written by SSEC support students in high-needs areas and that all outcome data are disaggregated by student subgroups (as defined by "high-needs").
c. **Year 1:** Apply for an NSF INCLUDES grant to study the impact of SSEC's efforts to diversify the STEM teaching workforce.
d. **Years 1-5:** Gather formative data on feasibility and usability of each product and program (virtually or in-person) to inform updates.
e. **Years 3-5:** Engage in research focused on student achievement and skills or teacher professional learning to determine efficacy of the work.
f. **Years 3-5:** Disseminate and/or publish results at conferences and in education journals.

Goal A3: Advance K–12 STEM education for sustainable development.

Objective A3.1. Develop community research guides using the United Nations Sustainable Development Goals as a framework to focus on sustainable actions that are student-defined and implemented.

Strategies:

a. **Years 1-5:** Develop 10 Smithsonian Science for Global Goals modules in collaboration with Conservation Commons and other SI units, the IAP, and other external partners.
b. **Years 1-5:** Develop and disseminate online Professional Development courses for the modules.

Objective A3.2. Develop a movement that includes scientists and educators to address complex socio-scientific issues and the role of STEM education for sustainable development.

Strategies:

a. **Years 1-5:** Conceptualize, cultivate, and convene the Network for Emergent Socio-Scientific Thinking (NESST) with a membership of at least 100 like-minded individuals or organizations to catalyze critical conversations around STEM education for sustainable development.
b. **Years 1 and 2:** Engage students in studying socio-scientific issues of importance to their own region through Smithsonian Science for Global Goals, ATLAS (Always Thinking Like a Scientist), and/or other near-peer mentoring models in-school or afterschool.
c. **Years 2-5:** Host Building Awareness for Sustainability Education events nationally/internationally.

Objective A3.3. Research and evaluate the impact and efficacy of products and programs developed by the SSEC.

Strategies:

a. **Years 1-5:** Gather formative data on feasibility and usability of each product and program (virtually or in-person) to inform updates.
b. **Years 3-5:** Engage in research focused on the impact of Global Goals content on intergenerational learning, understanding of complex ideas, and behavioral change in students and facilitators.
c. **Years 3-5:** Disseminate and/or publish results at conferences or in education journals.

Objective A3.4. Collaborate with NASEM and the IAP to advance STEM education and STEM education for sustainable development.

Strategies:

a. **Years 1-5:** Collaborate with NASEM Board on Science Education to advance STEM education in the United States and share resources and expertise with educators.
b. **Years 1-5:** Collaborate with the Policy and Global Affairs Office to advance STEM education for sustainable development.
c. **Year 1-5:** Serve on the IAP Science Education Programme Global Council.

B. Operational Goals, Objectives, and Strategies: 2021-2026

Operational goals are clearly defined functions within SSEC that ensure SSEC can pursue its mission, vision, values, goals, and objectives. They align with the work of our Finance and Administration, Human Resources Office for Equal Employment and Opportunity, Advancement and Partnerships, and Executive Office. It is our promise to transform SSEC's effectiveness and excellence, and position SSEC for success by achieving its organizational imperatives.

Goal B1. Create growing, diverse, and predictable advancement and revenue streams to provide resources to maintain our growth and create new opportunities for innovation.

Objective B1.1: Generate revenue though products and services.

Strategies:

a. **Years 1-5:** Develop an effective marketing plan in collaboration with Carolina Biological to expand the market share of our K-8 Smithsonian Science curriculum.
b. **Years 1-2:** Build a revenue stream by offering Smithsonian Science Stories eBooks on Apple Books, Google, and Amazon.
c. **Years 2-5:** Build a revenue stream for professional services by offering a suite of online courses by charging a per teacher cost per course.
d. **Years 2-5:** License our STEM content to one or more publishers for their K-8 reading and math instructional materials and assessment products.
e. **Years 3-5:** Generate revenue from a new three-dimensional curriculum for high schools in partnership with a selected publisher.

Objective B1.2. Develop robust, individual, corporate, and foundation giving that brings in programmatic and unrestricted funds to the unit to enable SSEC to meet its objectives and goals.

Strategies:

a. **Years 1-5:** Increase philanthropic revenue by 20% annually.
b. **Year 1:** Develop detailed funding plan to guide the growth of SSEC's philanthropic revenue.
    - Clarify messages for different audiences (corporate, foundation, and individual).
    - Refine SSEC "Elevator Speech" for unrestricted individual donors.
    - Develop donor cultivation and stewardship program.
    - Work with Advisory Board members to identify and cultivate prospective funders.
    - Develop concept notes for key priority programmatic strategies.
c. **Years 2–5:** Execute fundraising plan.

Goal B2: Ensure fiscal and administrative stability of the SSEC.

Objective B2.1: Manage resources efficiently, transparently, and strategically.

Strategies:

a. **Years 1–5:** Strengthen planning, budgeting, and funds management across all levels of the organization to align our resources to our goals and objectives.
b. **Years 1–5:** Evaluate new projects, initiatives, and programs so they not only align with our goals but also contribute to our overall fiscal health.

Objective B2.2: Build organizational capacity.

Strategies:

a. **Years 1–5:** Develop staff growth plans through the Employee Performance Management System (EPMS).
b. **Years 2–5:** Promote and support staff development.
c. **Years 3–5:** Expand mobility programs under the leadership of the Smithsonian Deputy Secretary.
d. **Years 2–5:** Bring on new interns and fellows in collaboration with the National Science Foundation and the Office of Fellowships and Internships at the Smithsonian.

Goal B3: Contribute new knowledge within field of K–12 STEM education and STEM education for sustainable development.

Objective B3.1: Position SSEC as a thought leader in developing K–12 STEM education and STEM education for sustainable development nationally and globally.

Strategies:

a. **Years 1–5:** Demonstrate expertise through curriculum design, digital development, leadership development, and sustainable development by speaking at conferences and webinars, taking part in conference panels, presenting posters, and submitting articles and book chapters for publication.
b. **Years 1–5:** Write four white papers a year and disseminate in partnership with Carolina Biological Supply Company.
c. **Years 3–5:** Publish results of impact and efficacy of SSEC products and programs at conferences and in peer-reviewed journals.

C. Pan-institutional Goals, Objectives, and Strategies: 2021-2026

We are committed to establishing pan-institutional goals that allow us to collaborate with our Smithsonian colleagues, federal partners, and National Academies and IAP colleagues to translate their research and collections into meaningful tools and convenings for K–12 teachers and students to spark their interest in STEM; to ensure diversity, equity, accessibility, and inclusion in K-12 STEM education; and to ensure a sustainable and scientifically literate planet.

Goal C1. Support the Smithsonian Secretary's initiatives to serve as a knowledge partner in STEM education to K-12 educational systems nationwide.

Objective C1.1. Coordinate the Secretary's national education outreach strategy in K–12 STEM education.

Strategies:

a. Coordinate the development of a core signature K-12 transdisciplinary curriculum for teachers and students that draws on the history, art, culture, and science of the Smithsonian in service of the Secretary's "Grand Challenge."
b. Coordinate pan-institutional professional development for K-12 STEM teachers working directly with scientists and researchers from across the Smithsonian, CoSTEM, and NASEM.
c. Coordinate pan-institutional STEM education leadership development opportunities for K-12 schools, districts, and state education agencies by hosting virtual and face-to-face convenings capitalizing on the Smithsonian's broad K-12 STEM education expertise.
d. Coordinate pan-institutional strategic partnerships to advance K-12 STEM education ecosystems that serve communities and support students in both formal and informal learning.
e. Extend the Smithsonian's reach, relevancy, and impact to K-12 classrooms in measurable ways.

Objective C1.2. Coordinate the development of a broad portfolio of K–12 STEM education resources from high-tech to high-touch (low-tech) as outlined in Objective A1.2.

Strategies:

a. Disseminate Smithsonian Science Stories in print to K-12 school districts across the country as a pan-institutional high-touch, low-tech STEM literacy series solution, which draws on the vast Smithsonian research and collections.
b. Provide virtual STEM classes for game design for students in high-needs in both English and Spanish in collaboration with Smithsonian museums, education, and research centers.
c. Coordinate through a public-private partnership the development of a Smithsonian Science mobile app for K-12 classrooms that serves as a library of Smithsonian resources for mobile devices
d. Develop and test low-tech to high-tech Smithsonian Science for Makerspaces activities in both English and Spanish that address the integration of computational thinking and STEM along the technology spectrum.
e. Design a business model that helps the Smithsonian acquire licensing fees for its K-12 STEM content.
f. Create a marketing campaign to cross-promote pan-institutional K-12 STEM

Objective C1.3. Scale K–12 STEM education resources described in Goals A1 through A3 on Learning Lab as meaningful tools for students and teachers.

Strategies:

a. Ensure all SSEC K-12 STEM education content is accessible through Learning Lab
b. Integrate Learning Lab into SSEC professional services for teachers and school leaders when appropriate
c. Contribute content to Learning Lab for Distance Learning

Goal C2. Support the Smithsonian Science Plan.

Objective C2.1. In collaboration with other Smithsonian science units, align Smithsonian K–12 STEM education efforts with those outlined in the Smithsonian Science Plan produced by the Under Secretary for Science & Research (USSR).

Strategies:

a. Coordinate an internal mailing list and regularly scheduled meetings for K-12 STEM educators to share pan-institutional K-12 STEM resources focused on two broad areas:

    i. biological and anthropological systems of our planet, including human evolution and cultural diversity

    ii. astrophysics and Earth and planetary sciences.

b. Ensure K-12 STEM education efforts, across the Smithsonian, align with the Smithsonian Science Plan's overarching questions:

    i. How widespread is life in the universe?

    ii. How can we re-balance human activities with nature?

    iii. How can we improve public understanding of SI science?

Objective C2.2. In collaboration with other Smithsonian science units, align Smithsonian K–12 STEM education efforts with unique cross-unit science programs

Strategies:

a. Remain a dedicated signatory to the Conservation Commons
b. Contribute to the Earth Optimism annual summit
c. Serve on the One Health team and support K-12 STEM for sustainable development efforts and promote actionable solutions

Objective C2.3. In collaboration with other Smithsonian science units, ensure that Smithsonian K–12 STEM education is effective in communicating to the public about science

Strategies:

a. Catalyze critical conversations across the Smithsonian on K-12 STEM education for sustainable development through the SSEC Network for Emergent Socio-Scientific Thinking (NESST). Examples include:

    - **Life on a sustainable planet:** The SSEC will support the Smithsonian's Conservation Commons action network by disseminating its content focused around sustainable food systems—Food! How Do We Ensure Good Nutrition for All?
    - **Create healthy communities:** The SSEC will support Smithsonian's One Health through disseminating Mosquito! and COVID-19! modules which focus on disease transmission and protecting ourselves and others from viruses.
    - **Standing on equitable, common ground:** The SSEC will contribute to addressing race in America by developing content and convening audiences around the conversation of diversity, equity, and inclusion to address racism in the scientific and environmental communities.

b. Invite Smithsonian colleagues to join NESST
c. Interview, research, and develop STEM content on SI researchers for the Smithsonian Science for Global Goals project to tell the SI scientists' stories.

Goal C3. Revitalize Education through federal coordination in STEM (FC-STEM) of the Committee on STEM Education (CoSTEM).

Objective C3.1. Continue to represent the Smithsonian on the Federal Coordination of K–12 STEM (FC-STEM) education subcommittee of the National Science and Technology Council at the White House.

Objective C3.2. Collaborate with other Smithsonian organizations to fulfill the three goals of the Federal STEM Strategic Plan (published December 2018) outlined below:

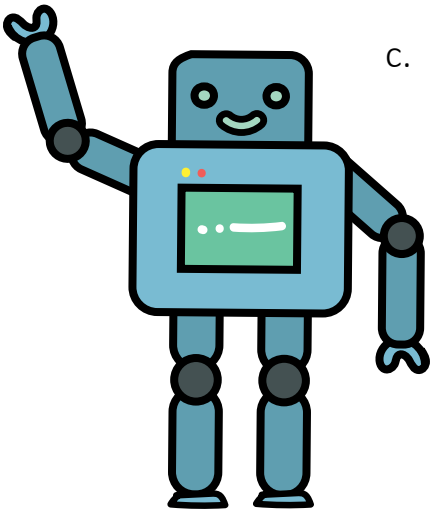
Strategies:

a. Build strong foundations for K–12 STEM literacy.
b. Increase diversity, equity, accessibility, and inclusion in STEM.
c. Prepare the STEM workforce for the future.

Objective C3.3. Coordinate with other SI units when OSTP makes a request of the STEM federal agencies related to STEM education

Strategies:

a. Solicit data from SI STEM colleagues for the annual OMB Data Call on STEM Education
b. Ask STEM educators at SI to share pan-institutional K-12 STEM resources focused on the three broad areas outlined in Objective 3.2
c. Coordinate with OPMB when the federal STEM education budget is submitted to Congress



Goal C4. Partner with the National Academies of Sciences, Engineering and Medicine (NASEM)—one of our founding organizations—on K-12 national and international STEM education

Objective C4.1: Engage in K-12 STEM education nationally in collaboration with the NASEM Board on Science Education (BOSE).

Strategies:

a. Increase collaboration between SSEC and BOSE.
b. Develop ways for the international work SSEC is involved in with the IAP to more directly inform the BOSE/National Academies portfolio of education work.
c. Create mechanisms for practitioners to engage more directly with BOSE/National Academies, for example, through the development of a virtual network of educators.
d. Identify opportunities for the work of BOSE/National Academies to inform what the Smithsonian does more broadly in its science education work.

Objective C4.2: Engage in K-12 STEM education for Sustainable Development internationally in collaboration with the Global Policy Group of the NASEM.

Strategies:

a. Serve as a liaison between the National Academies and the international science education community.
b. Attend education related meetings of the InterAcademy Partnership.
c. Bring relevant international STEM education issues to the attention of the National Academies staff.
d. In collaboration with IAP, develop the Smithsonian Science for Global Goals learning materials that are relevant to UN Sustainable Development Goals and valuable for the academies of the InterAcademy Partnership.

Appendix

Summary of our Strengths, Weaknesses, Opportunities, and Threats (SWOT)

SWOT Analysis

Leverage Strengths

Strengths

- The Smithsonian brand is strong, global and ubiquitous
- Expertise in formal education (curriculum, research, professional development, systemic reform)
- Ability to engage and integrate pan-institutional capabilities, expertise and resources to address the needs of schools and teachers
- Contributions to Committee on STEM Education enable cross governmental collaboration
- Collaboration with National Academies and IAP give us global expertise
- Strong advocates and long term, high-level funders
- Highly efficient cost structure (10% load)
- Talented, dedicated and passionate staff

Mitigate Threats

Threats (External)

- Don't own the sales channel
- STEM education is ill-defined and the role of "science" is sometimes unclear
- Evolving marketplace for NGSS curriculum with increased competition and external reviews that affect royalties
- Non-profit within quasi-government entity causes confusion in the field
- Perceptions of education being somehow less than science
- Perceived competition from other SI entities for donations

Weaknesses (Internal)

- Project management process (RACI) needs to be applied uniformly
- Resource constrained, including staff, central support and new product development
- Need to demonstrate value proposition across stakeholders (internal and external) so that we are perceived as key SI community outreach element in K-12 STEM education
- Non-diversified revenue streams
- Need to create revenue streams for Professional Services
- Large organization often leads to lack of nimbleness
- Our direct access to curriculum market is limited
- Insufficient dedicated marketing capabilities knowledgeable about the education market

Address Weaknesses

Opportunities

- Recognition that diversity, equity, accessibility, and inclusion is crucial to K-12 STEM education
- New Secretary's focus on K-12 Education as a priority
- Our focus on Global Goals brings tremendous traction with our international partners, opening up internal and external collaborations
- Diversifying revenue streams through Literacy series, leadership development, and digital assets
- High level funders and on-line giving provide options
- Aligning travelling exhibitions and SI Affiliations with science standards in curriculum and STEM education outreach

Pursue Opportunities

Smithsonian
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scienceeducation.si.edu