

# Afterschool STEM Impact Award Insights

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# Today's Webinar

1. Award Background
2. Award Categories
3. Eligibility Requirements\*
4. Mapping Outcomes (Q16-21)\*
5. Review Process
6. Application Tips
7. Q&A

\*Slides were added after the live webinar.

# Award Background

- Need for recognizing STEM in afterschool to increase visibility
- Bring to light more programs doing STEM as examples for field
- Solid examples of impacts for policymakers
  - Connected to recent work on [STEM afterschool outcomes](#)
  - Based on our experience running the [MetLife Afterschool Innovator Awards](#).

# Eligibility Requirements

Programs **MUST** meet all four

1. Offer the STEM program during the school year (before school, after school and/or on weekends)
  - Summer-only programs are not eligible.
2. Offer the STEM program for students in 4th through 8th grade
  - You do not have to serve all grades within that range, just one.
3. Serve students from populations under-represented in STEM fields
  - This includes rural or low-income populations; girls; students of African American, Hispanic, or Native American ethnic background; English Language Learners (ELL); and students with disabilities.
4. Have been offering the STEM program for two years or more
  - The second year can include the 2012-2013 year.


# Category #1: Partnerships

- Partnership models of interest to field
- Want to know how your program uniquely partners with local institutions
  - What are you able to accomplish through this partnership that you couldn't do alone?
- Partnership tied to impact on youth & program quality

# Category #2: Computing/Engineering

High interest due to national priorities & workforce issues.

- White House has placed a priority on STEM education - through [Educate to Innovate](#), [STEM AmeriCorps](#)
- CS/Eng job fields growing fast, concerns with ability to fill jobs & for general STEM literacy
  - See Georgetown University's [report on STEM](#)



# Category #2: Computing/Engineering

**There are a lack of school-day opportunities.**

- Science & math long established in K-12
  - Lack of supports for teaching “T” & “E” in STEM
    - See Computing in the Core’s [summary of K-12 CS Education](#)
  - Hard to fit additional subjects into school-day curricula

**Afterschool can help schools in many ways!**

# Category #2: Computing/Engineering

- Afterschool field has many examples of innovative, successful engineering & computing programs
  - Demonstrate potential of afterschool to be partner in STEM education
- Engineering is very prominent in the Next Generation Science Standards (NGSS)
  - See the “Science & Engineering Practices in the NGSS” and “Engineering Design in the NGSS”.

# Using the Afterschool Alliance Framework

- Application questions #16-21 require you to read the report “[Defining Youth Outcomes for STEM Learning in Afterschool](#)” and map what the students in your program are demonstrating to the framework of STEM learning outcomes described in the report.
- Not all programs will see evidence of all the framework components and we do not expect them to do so. The afterschool field is hugely diverse and the outcomes are entirely dependent on the program model & focus as well as the age groups served.

For more about using the Outcomes Report and additional examples, [view the slides](#) from our [past webinar](#).

# Sample Outcomes Mapping Process



Developed by the Museum of Science, Boston

**Engineering Adventures** is a free engineering curriculum developed especially for out-of-school time programs.


- Developed by Engineering is Elementary, a school-day curriculum development project at the **Museum of Science, Boston**
- Focused on grades 3-5, and engages students to solve real-world problems through the engineering design process



# Sample Outcomes Mapping Process

**Selected observations of the Engineering Adventure program:**

*Note that these are not necessarily currently quantitatively documented, but qualitative observations.*

1. Kids are observed **collaborating** with others to imagine creative solutions to problems, and demonstrate **critical thinking** in groups and engineering journals.
  2. Kids are observed **applying knowledge** they gained through **observation** and **experimentation** earlier in the unit, they record designs and reasoning in their engineering journals.
  3. Kids reference the engineering design process and how they used its steps to help them **solve engineering problems**, and verbally identify objects that are not high-tech as technologies.
  4. Kids reference and record uses of the **engineering design process** in their journals, highlighting how and why they improved designs.
  5. Kids are observed **discussing** pros and cons of ideas with their group members and **combining** different perspectives.
  6. During the testing process, kids are observed commenting on their designs, **questioning** why components may not work the way they expected, and **brainstorming** ways to **troubleshoot** problems.
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# Sample Outcomes Mapping Process

| Observations → Sub-Indicators   | Indicator  | Outcome  |
|---|--|--|
| <ul style="list-style-type: none"> <li>✓ <b>Demonstration of STEM knowledge</b><br/>           Applying knowledge gained through observation and experimentation earlier in unit, kids record designs and reasoning in their engineering journals<br/>           #2</li> <li>✓ <b>Demonstration of STEM skills</b><br/>           Collaborating with others to imagine creative solutions to problems, thinking critically in groups and in engineering journals<br/>           #1</li> <li>✓ <b>Demonstration of an understanding of STEM methods of investigation</b><br/>           Reference and record uses of the engineering design process in their journals, highlighting how and why they improved designs<br/>           #4</li> </ul> | <div style="text-align: center; margin-bottom: 20px;"> </div> <ul style="list-style-type: none"> <li>✓ <b>Ability to productively engage in STEM processes of investigation</b></li> </ul> | <ul style="list-style-type: none"> <li>✓ <b>Develop capacities to productively engage in STEM learning activities</b></li> </ul> |

# Review Process

- Review teams will be made of:
  1. Afterschool/youth development expert
    - Immersed in the field
  2. STEM education expert
    - From afterschool, science centers/museums, informal science
  3. Afterschool Alliance staff
    - Experienced in many aspects of afterschool, reviewers for MetLife awards
- Multiple rounds, with multiple people reviewing each application

# General Application Tips

1. Start early! Read all the questions beforehand.
  - May require information gathering, can't save online application mid-way.
2. Plan out your answers, don't be repetitious.
  - Each reviewer will read your application in its entirety.
  - Each question should contribute to the whole picture of your program.
3. Don't assume anyone knows your program.
4. Answers should be compelling, but succinct.

**DEADLINE MAY 15TH**



# Q & A

# Your Questions Answered, part 1

## 1. I have questions about the eligibility criteria that a program must be running for “two years”.

Since we are looking for afterschool programs that can clearly demonstrate outcomes, we believe this is best shown when programs have at least been able to apply the lessons learned in their pilot year to their second year. The 2012-2013 year counts as the second year.

- We are interested in the length of time the STEM component has been running. If your larger afterschool program has been running for many years, but the STEM program for less than two, you do not qualify. If you have been running a STEM program for multiple years, but have only had computing/engineering curricula or partnerships for less than two, you do not qualify.
- One summer or one semester in addition to the 2012-2013 academic year do not count as two years—we are looking for 2 full years of afterschool programming.

## 2. How can I differentiate my program from what other programs in the same category are doing? Especially if they might be using the same curriculum or technology?

As an example, many programs may be doing robotics programming, but using different technologies, curriculum, or implementation strategies. Focus on how you run your program and the impacts you see on your students. There could be adjustments you’ve made for the particular population you serve or additional steps you take in providing wrap-around services, professional development, ensuring school-day linkages, etc.

# Your Questions Answered, part 2

## 3. What qualifies as a “partnership”?

“Partnerships” aren’t limited to just one afterschool provider and one STEM-rich institution. There can also be others involved like community-based organizations, schools, religious organizations, companies, etc. Involved organizations can also hold multiple roles within the partnership. Applications will be reviewed to determine the quality of the partnership and ensure it is a true and meaningful relationship that allows for greater impact on participating young people. Awards will be made to the group that submits the application, but we will look carefully at how they propose to spend the award money. We would hope to see that funds will be used to grow and sustain the partnership.

## 4. Are there any required outcomes that programs need to show?

There are not any specific impacts or outcome types you are required to report. We recognize that programs vary in their capacity to enlist certain evaluation methods. And we also realize that post-evaluations from the 2012-2013 school year may not have happened yet. Applications will be evaluated on their ability to clearly describe their intended outcomes and whether they have been able to achieve that impact. This could include a wide range of desired outcomes such as increased interest or improved attitudes towards STEM topics, and increased STEM skills and proficiencies.

# Your Questions Answered, part 3

5. **How much will the questions not related to impacts count toward a program's score? For example the questions about reaching under-represented youth, scalability, or program sustainability?**

There will be points awarded for these practices. However their importance is not as great relative to the questions about demonstrating impacts. We are interested in reaching children from populations that are traditionally under-represented in STEM fields, and also want to identify programs that can scale. Your answers to these questions will help, but won't make or break the application.

6. **Does it matter what I want to do with the funding?**

Regardless of what you'd like to spend the funding on, we are looking for you to present a compelling case for how it will help your program further impact youth in STEM. We hope to see a direct connection between intended purchases/expenditures and this impact.

7. **Can you say more about the portion of awarded monies being required for conference travel?**

As one of the main goals behind the Afterschool STEM Impact Awards is to find models of successful afterschool STEM programming, it is important that we can share the winning programs with the field. Winners should expect to spend \$500 to \$1000 on conference fees, flight, hotel and other travel-related expenses. Timing, location and availability will be taken into consideration when deciding the conference in which winners will be asked to present.

# Thank you for joining us!

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