

<http://www.bloomfieldschools.org/>

Request for Proposals for

STEM Programming

July 2018

**Background**

With the dramatically increasing volume of technology that is required to be prepared for successful careers, a well-rounded education in STEM has never been more essential for our students. Bloomfield Public Schools, in Bloomfield, Connecticut, is dedicated to helping students to reach their potential as leaders, learners, and contributors to society. To achieve this, Bloomfield Public Schools works to ensure that its programming is at the forefront of STEM education initiatives. To promote rigor and equity, these initiatives are aligned to modern standards, including the [Common Core State Standards for Mathematics](http://www.corestandards.org/Math/), the [Next Generation Science Standards](http://nextgenscience.org/), the [ISTE Educational Technology Standards for Students](https://www.iste.org/standards/for-students), and the [CS K12 Computer Science Framework](https://k12cs.org/) & [CSTA K-12 Computer Science Standards](https://www.csteachers.org/page/standards). These standards call for equipping students not only with critical knowledge and skills, but also with practices and concepts essential to understanding and analyzing our world through quantitative and empirical lenses.

**Introduction**

Bloomfield Public Schools provides extended-day programming for students in grades 2-6, with future expansion that may include grades 7-8. The program currently enrolls approximately 500 students.

Bloomfield Public Schools seeks to enrich this programming with **curriculum and instructional materials** that will enhance its outcomes, **with a primary focus on standards-based STEM** (Science, Technology, Engineering, and Mathematics). This document is a Request for Proposals for programming that can enhance the Bloomfield program.

**Eligibility**

Eligible organizations may submit multiple proposals. If multiple product lines are submitted for consideration, then a separate proposal should be submitted for each product line.

**Delivery Schedule**

Products and services must be delivered so that Bloomfield Public Schools can adequately prepare for the program to start during the 2018-19 school year.

**Funding**

Proposals should be reasonable and competitive; cost-effectiveness of proposed programming will be considered. Proposals that do not provide clarity around costs may be rejected.

**Evaluation**

Provided they meet basic eligibility criteria, proposed programming will be evaluated on the following:

* alignment to standards in science, technology, engineering, and/or mathematics adopted by the State of Connecticut for elementary and middle school grades[[1]](#footnote-1); this also includes any applicable safety standards (such as science safety, shop floor safety, Internet safety, etc.)
* potential to yield a high level of interest among a wide range of students
* the inclusion of resources that support gathering quantitative data on student outcomes
* extensiveness of educator materials and the quality of guidance given to educators; the availability of formats (print, offline digital, online) will also be considered

Additional consideration may be given to the following:

* additional alignment to standards in other subjects adopted or recommended by the State of Connecticut for elementary and middle grades, such as English Language Arts or the Arts
* potential to effect substantial increase in career 1) awareness, 2) interest, and/or 3) proficiency in STEM-related fields
* supplemental materials, such as recruitment materials, for parents or other stakeholders
* unique resources, such as access to STEM-related professionals or facility tours

**Proposal Timeline**

Proposals will be evaluated as received. Proposals submitted after **August 17, 2018**, will not be reviewed. The proposal that best meets the criteria of this RFP is scheduled to be awarded by October 2018. Bloomfield Public Schools reserves the right to refrain from purchasing any products or services if no proposals adequately meet the criteria of this RFP or if unexpected budget changes necessitate the elimination of this funding.

Thank you for your time and interest in supporting the students of Bloomfield Public Schools!

**Proposal Format**

Proposals should be submitted using the template that starts on the next page (the Cover Page). The portion of this document preceding the Cover Page are not necessary for submission. The document should stay in current Microsoft Word format (.docx) if at all possible.

Samples of curricular materials are required and should be included as separate attachments. Additional materials may also be submitted. Please note:

* A high volume of material may not be reviewed.
* Proposals that consist largely of attached materials in lieu of responses to the prompts in the proposal template will not be reviewed.
* Incomplete proposals will not be reviewed.
* Samples that fail to show all aspects of the program may be detrimental.

Therefore, use the provided template whenever possible and provide only attachments that have been requested, with additional materials only submitted if they seem essential for evaluating your program.

**Proposal Submission**

A completed proposal should be submitted by attaching it to an email addressed to smccann@blmfld.org no later than **4:00 p.m. on August 17, 2018**. The total email size should be smaller than 10 megabytes and have no more than five attachments. Alternatively, a link to a digital folder (such as Google Drive, Dropbox, OneDrive) containing the proposal contents may be provided in the email (recommended if any attachments are large in file size).

**Proposal Contact**

If you do not understand an aspect of this RFP and/or require additional technical information to prepare an accurate proposal or quote, such request for information shall be in writing to Stacey McCann, Chief Academic Officer, Bloomfield Public Schools, smccann@blmfld.org 1133 Blue Hills Ave, Bloomfield, CT 06002 no later than August 10, 2018. Responses to all requests for information will be posted in the form of an addendum and posted to the Department of Administrative Services (DAS) state contracting portal. It is the responsibility of interested parties to check the DAS website for any posted addendums. Questions soliciting proposal evaluation such as, “Would you accept our proposal if…?” will not be answered and may adversely impact proposal consideration.

**Proposal Cover Page**

**Company**

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| Name |  |
| Legal & Tax Category | examples: 501(c)(3) non-profit, C Corporation |

**Product Proposed**

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| Product Name |  |
| Web Page |  |
| Fee for **500** Students for School Year 2018-19 | $ total |
| Fee Per Additional Pupil Beyond 500 | $ per additional pupil |
| Approx. Fee for Four Additional Years (2019-2023) | $ total / $ per pupil |
| Primary Subject Addressed (**one**) – *S, T, E, M, or Other* |  |
| Subject that is Second-Most Addressed (**up to one**) |  |
| Primary Outcome Category (**one**) – *See Section IX* |  |
| Secondary Outcome Category (**up to one**) |  |
| Total Hours of Programming Included per Student |  |

**Point of Contact**

*This person will receive proposal notification and potential inquiries.*

|  |  |
| --- | --- |
| Name |  |
| Title |  |
| Email |  |
| Phone |  |
| Fax |  |

**Authorized Official**

*This person is authorized to submit proposals on behalf of the proposing organization. He/she will also receive proposal notifications. This person may be the same as or different from the point of contact.*

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| Name |  |
| Title |  |
| Signature |  |
| Date |  |

**Proposal Details**

1. Program Overview

Briefly describe your program and its key highlights:

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1. Program Audience

Describe specifically who the ideal audience for the program is by providing one or more profiles of the target participant(s). (E.g., “This program is especially designed for students who…”) If there are individual prerequisites (knowledge, skills, attitudes), describe them.

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1. Program Components

Describe what is included in your program, both for students and teachers/facilitators, and why these components are useful. If helpful, **attach** a list of program components. Additionally, explain how the program is delivered and accessed (e.g., digitally, in print, in totes, etc.).

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1. Program Requirements

Describe any facility, technology, equipment, software, bandwidth, or other requirements for using the program that are not included with the program. Include minimum specifications for the items with enough detail to obtain prices. If you also have specific recommendations, please also share them. Be sure to include required or recommended quantities needed with units (e.g., “A minimum of one 3-D printer per 20 students; we recommend Model X if only purchasing one” or “One Windows 10 computer per 2 students who will be completing modules 2, 5, or 9 simultaneously at any given time, with total available bandwidth for all of them to stream 720p video.”).

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Describe the nature of any necessary teacher preparation and training needed to facilitate this particular program successfully and estimate the approximate duration of that preparation/training that would be sufficient for a typical teacher to report feeling confident in their facilitation of this program:

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1. STEM Balance

For each elementary and middle grade level that the program is suitable for, allocate how much the program emphasizes different subjects. I.e., consider the percentage of time that students are predominantly learning about each of the following subjects (consider Technology as a subject; do not factor in student use of technological learning tools, such as computers, unless they are being explicitly trained to use them). E.g., if your program addressed grades 2-4 and focused purely on science, then you would enter “100” in the first three cells of the table below. For each grade that your program addresses, the percentages in the column for that grade should add up to 100%.

|  |  |
| --- | --- |
|  | **Grade** |
| **Subject** | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| % Science |  |  |  |  |  |  |  |
| % Technology |  |  |  |  |  |  |  |
| % Engineering |  |  |  |  |  |  |  |
| % Mathematics |  |  |  |  |  |  |  |
| % Other 1 |  |  |  |  |  |  |  | Explain: |  |
| % Other 2 |  |  |  |  |  |  |  | Explain: |  |

On the Cover Page, list the subject with the highest percentage and (if applicable) the subject with the second highest percentage.

1. Standards Alignment

For any subjects that have percentages greater than zero above, list the standards to which the program has **substantial** (not cursory) alignment. In other words, measurable growth on that standard would be expected. For each standard, include both the code and the title and be sure that the grade or grade band is apparent so that reviewers do not have to guess about or extensively research specifics.

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| **MATH** |
| Which CCSS [Content Standards](http://www.corestandards.org/Math/)? | Example: 5.G.A.2: Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane. |
| Which CCSS [Standards for Mathematical Practice](http://www.corestandards.org/Math/Practice/)? | Example: MP.7: Look for and make use of Structure (used in Grades 4-5 in the program) |
| What real-world contexts are used in combination with this math? | Example: “In Module 3, students in Grade 6 are tasks with determining the appropriate ratios of ingredients for a juice manufacturer.”“All other program modules are also catalyzed by problems or challenges, such as [examples A and B]. See the **attached** list or access the program trial online at [URL] with [credentials] and click [X > Y > Z] for details.” |

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| **SCIENCE** |
| Which [Science and Engineering Practices](https://www.nextgenscience.org/sites/default/files/resource/files/Appendix%20F%20%20Science%20and%20Engineering%20Practices%20in%20the%20NGSS%20-%20FINAL%20060513.pdf) (among SEP 1-8)? | example (from Appendix F): Practice 6: Designing Solutions (engineering side of the Practice) for Grades 3-5: Optimize performance of a design by prioritizing criteria, making tradeoffs, testing, revising, and re-testing. |
| Which [Crosscutting Concepts](https://www.nextgenscience.org/sites/default/files/resource/files/Appendix%20G%20-%20Crosscutting%20Concepts%20FINAL%20edited%204.10.13.pdf) (among CCC 1-7)? | example (from Section 2 of Appendix G): CCC 1: Patterns for Grades 3-5: Patterns can be used as evidence to support an explanation. |
| Which [DCI Component Ideas](https://www.nextgenscience.org/overview-dci)? | example (from the orange Foundation Box on a standards page): ESS2.A: Earth Materials and Systems for Grades K-2: Wind and water change the shape of the land. |
| What real-world phenomena and/or problems are used to anchor units or modules? Include representative samples if you have a very many. | example phenomena: “Unit 2 starts with water seeming to have disappeared from a small cup overnight and soon incorporates cans of soda looking like they are sweating, water bottles expanding in the freezer, and other phenomena that can eventually be explained via a thorough understanding of temperature, phase changes, and physical properties of water, air, and other common substances.”example problem: “Unit 2 starts with the following scenario-based problem: “A company that manufactures soda and bottled water needs to know if the aluminum cans and plastic bottles they use can be used in any kind of manufacturing environment (optional hint: ‘such as one with a wide temperature range’).”“All other program units are also catalyzed by phenomena (science) or problems (engineering), such as [examples A and B]. See the **attached** list or access the program trial online at [URL] with [credentials] and click [X > Y > Z] for details.” |

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If **Technology**, to what standards does the program align (e.g., [ISTE Student Indicators](https://www.iste.org/standards/for-students), [K-12 CS Framework](https://k12cs.org/) / [CSTA CS Standards](https://www.csteachers.org/page/standards), or [CT Technology Education Standards](https://portal.ct.gov/SDE/Career-and-Technical-Education/TE/Engineering-Standards-and-Technology-Education/Documents))? Name the set(s) of standards used and the grades, codes, and titles of specific standards to which there is **substantial** alignment. If applicable, also provide sample technology challenges, scenarios, problems, questions, etc. that catalyze/frame units or modules in your program (see the math and science examples above).

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| Examples: ISTE Indicator 1b and 1d (Empowered Learner) for Grades 3-5; K12 Computer Science (CS) Practice 4: Developing and Using Abstractions, Statement 1 (Extract common features) for Grades 1-2 and Statement 3 (Model phenomena and processes) for Grades 2-3;K12 CS Concept 4: Algorithms and Programming, Sub-concept 2 (Variables) for Grades 6-8: Programmers create variables to store data values of selected types. A meaningful identifier is assigned to each variable to access and perform operations on the value by name.“Module 1 is framed by a project in which… Module 2 is anchored by a task that… In Module 3, students gradually work on a challenge that entails…” |

If **Engineering**, to what standards does the program align? Name the set(s) of standards used and the grades, codes, and titles of specific standards to which there is **substantial** alignment. If applicable, also provide sample engineering challenges or problems that catalyze/frame units or modules in your program (see the math and science examples above).

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| Example: NGSS DCI Component Ideas ETS2.A (Interdependence of Science, Engineering, and Technology) and ETS2.B (Influence of Engineering, Technology, and Science on Society and the Natural World) for Grades 6-8“In Unit 2, students examine…” |

If **Other**, to what standards does the program align? Name the set(s) of standards used and the grades, codes, and titles of specific standards to which there is **substantial** alignment. Describe sample ways in which real-world connections are prominent (see the math and science examples above).

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1. Sample and Standards Evaluation

At a minimum, **attach** a representative sample unit or module from your program. If you can provide more expansive access than a sample, please do so. If the sample or broader trial/demo is available online, include access credentials. If anything will be shipped to the Proposal Contact (see above), note that below. If providing a sample unit/module only, indicate if the sample differs in any significant way from others.

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If applicable and available, **attach** [EQuIP: Math](https://www.achieve.org/our-initiatives/equip/tools-subject/math) and/or [EQuIP: Science](https://www.nextgenscience.org/resources/equip-rubric-lessons-units-science) (v2 or v3, at least Category I filled out) rubrics that evaluate the attached unit.

1. Pedagogical Approach

Briefly describe the pedagogical approach(es) that your program uses or is best suited for use with. Cite or **attach** relevant research studies, if available.

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Describe any instructional supports targeted at subgroups, such as English Language Learners (if applicable).

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1. Balance of Outcomes

Allocate the emphasis/-es that your program places on enhancing student outcomes amongst the following outcome categories. I.e., consider the percentage of time that students are predominantly learning about each of the following subjects. While there may be significant overlap and connections between them, one of them is usually in the foreground for any particular segment of a curriculum. The numbers should add up to 100%.

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| **Category** | **Description** |  |  |
| STEM-Related Academic Success | To what extent is the program designed to improve performance in core subjects by helping to equip them with foundational knowledge and skills? (E.g., Ss will be able/better able to develop and use statistical models.) |  | % |
| STEM-Related Career Awareness | To what extent is the program designed to introduce students to new careers so they can make choices about coursework and enrichment opportunities? (E.g., Ss will be able to consider and evaluate career possibilities in high-tech manufacturing.) |  | % |
| STEM-Related Career Training | To what extent is the program focused on providing students with technical knowledge and skills required for one or more particular careers? (E.g., Ss will be able to manipulate video and audio segments and produce videos in industry-standard formats.) |  | % |
| Civic Engagement/ Discourse around STEM-Related Issues | To what extent is the program targeted at equipping and encouraging students to engage in public discourse on civic issues and make decisions that affect society? [E.g., Ss will be able to evaluate modern biomedical and biotechnological issues, such as the genetic manipulation of plants and animals, using ethics and evidence.] |  | % |
| Appreciation of STEM-Related Fields | To what extent is the program focused on promoting one or more STEM-related fields as a cultural accomplishment to be celebrated and passed down through generations? [E.g., Ss will appreciate the impact of the Internet and its precursors on American society and individual lives.] |  | % |
| STEM Ability in Everyday Life | To what extent is the program aimed at equipping students to make decisions that enhance their own quality of life or personal fulfillment, today and/or in the future, regardless of/aside from their career path? [E.g., students will be equipped/better equipped to make major personal or family medical decisions.] |  | % |
| Other 1 |  |  | % | Explain: |  |
| Other 2 |  |  | % | Explain: |  |

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On the Cover Page, list the Category above with the highest percentage and (if applicable) the Category with the second highest percentage.

1. Outcomes and Outcome Measures

Describe the expected student outcomes of the program (be as specific as possible) and what is provided in the program to aid in measuring those outcomes.

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Be sure that your **attached** sample unit/module (or online trial) includes or depicts student assessments, surveys, or other evaluation tools that would be used with the provided learning activities.

1. Program Fees

If Bloomfield Public Schools opts to selects a program vendor for the 2018-19 school year, it cannot guarantee additional use or funding of any particular program for subsequent years. However, given the possibility of the program continuing to be used, fees should be provided for school year 2018-19 as well as estimates for four (4) more school years after that.

What would the fee be, in USD, for 500 students to complete the program a) during school year 2018-19 and b) for four more years after that? All fees should be included (e.g., shipping, activation fees, periodic license renewals, replenishment of consumable supplies, etc.).

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| **School Year 2018-19** | **School Years 2019-20, ’20-21, ’21-22, and ’22-23** |
| $ | $ |

What is the per-student cost to Bloomfield Public Schools? Also, if the per-student cost varies for fewer than or more than 500 students, explain how the per-student would cost vary below. **Attach** and refer to a pricing sheet if it would provide additional clarity around any fee complexities.

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If the fees above can be broken down into components, please describe them below (e.g., student licenses vs. teacher licenses vs. teacher training vs. student supplies). For each component, indicate if that component is a) a core/required component, b) an optional component included in the fee above, or c) an optional component that is not included in the fee above.

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In Section IV, was any additional prerequisite equipment, software, etc. listed that may also need to be procured in addition to the costs above? \_\_\_ YES \_\_\_ NO

1. Connecticut Standards can be accessed at <https://portal.ct.gov/SDE/Academic-Office/Academic-Office-Home-Page>. Click on any subject area to access that subject area’s standards. [↑](#footnote-ref-1)