# Secondary STEM Science and Math Cohort Structures and Credit Options 2019-20

## STEM Cohort A:

**Science Cohort A** is for teachers new to the STEM cohorts, or wanting to learn more about our new 2020 state science standards (adapted from NGSS). Teachers will focus on NGSS Science and Engineering Practices (SEP’s) and three dimensional learning based in phenomenon to integrate STEM into your science class. In addition, teachers will use our STEM 5E pedagogy (Engage, Explore, Explain, Elaborate, Evaluate from BSCS) and do engineering design.

- Teachers will participate in two after school professional learning days on September 10 from 4:00-8:00. Then, choose from an afternoon planning session with other cohort members on Sept. 24 or Sept. 25 from 4:00-7:00.
- There will be two lab days for the year. The first fall lab days are on October 22 or 23 (choose one). You will combine with STEM cohort B teachers for all lab days. The spring lab days are on January 28th or 29th.
- In addition, teachers will participate in three coaching cycles for the year (plan, observe, debrief) in person and virtually in a video coaching platform (one video upload per semester). You will be trained!

Out of contract hours you can either work toward credit or get curriculum pay. Lab days are during the school day and STEM will cover your sub costs.

**See credit information below**

## Math Cohort A:

**Math Cohort A** focuses on introducing first year STEM teachers to the CCSS Standard of Math Practices (SMP’s), and workshop model for math instruction. We will dig into 5 Promises for Math Class and grow our understanding of a math classroom that builds student identity and agency through engaging and rigorous learning experiences.

- Includes 3 coaching cycles (plan, observe, debrief) and at least one video upload into a video coaching platform (training will be provided) each semester.
- Will attend two after school sessions for our first PL day together on Sept. 10 from 4:00-8:00. Then, choose from an afternoon planning session with other cohort members on Sept. 24 or Oct. 1 from 4:00-7:00.
- **Both sessions offer curriculum pay or credit (see below for options)**
- There will be two lab days for the year for Cohorts A and B together. October 29, Nov. 5, or 7 (choose one) Feb. 4, 5, or 6 (choose one)

Out of contract hours you can either work toward credit or get curriculum pay. Lab days are during the school day and STEM will cover your sub costs.

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<table>
<thead>
<tr>
<th><strong>Cohort B (science or math)</strong></th>
<th><strong>Cohort C PBL (both science and math, with a splash of tech and engineering)</strong></th>
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<tbody>
<tr>
<td>1-3 years in cohort</td>
<td>2-7 years in cohort (or only do the A PL day then do the PBL lab days if new to STEM and have completed the BIE PBL 3 day workshop, now called PBL Works)</td>
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<td>● Learning Together day August 2nd or 2 after school sessions in September 17th from 4:00-8:00 and then Sept. 24 or 25 for planning from 4:00-7:30. <strong>Credit options are below or you can choose curriculum pay.</strong></td>
<td>● Must have completed the BIE PBL 101 and/or 201 training, or plan on taking it during Summer Ed-Ventures in June.</td>
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<td>● Focus on Colorado Academic Standards for science and math, and NGSS for science, CCSS SMP’s for math, and STEM practices including Engineering design and PBL unit development.</td>
<td>● Learning Together day August 2nd (or 2 after school sessions in September 17th, and either September 24th or 25th)</td>
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<td>● 2 Lab days to observe STEM integration through NGSS SEP practices, SMP for math, and STEM extensions. Lab days will be content specific, either math or science STEM.</td>
<td>● 2 lab days - observe integrated STEM lessons and STEM PBL’s. Math and/or science classrooms.</td>
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**Fall lab days:**

- **Science A and B:** October 22 or 23.
- **Math A and B:** October 29, Nov 5, or 7

**Spring lab days:**

- **Science A and B:** Jan. 28 and 29th.
- **Math A and B:** Feb. 4, 5, or 6th.

● 3 coaching cycles per year

● Out of contract hours you can either work toward credit or get curriculum pay. Lab days are during the school day and STEM will cover your sub costs.

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**Credit options for the year: You Can find STEM cohort Credit is PD Pro (tile in mycherrycreek). You can sign up for 1 or 2 credit hours.**
- 1 Credit – 15 hours with a menu of options. First Learning Together Day can count towards your 15.
- 2 Credits – 30 hours with a menu of options. First Learning Together Day can count towards your 30.

Other hours will include:
- CU Boulder, Saturday in December, for the first year engineering design exp
- Denver Museum of Nature of Science, Saturday in March, integrated math and science learning experience
- After school workshops TBD