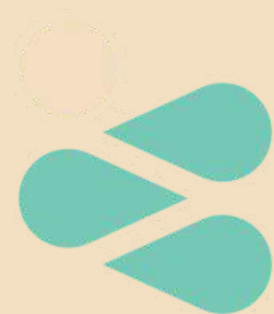# MME 2022-23

Welcome, New Teachers!

ILLINOIS SCIENCE & TECHNOLOGY COALITION

EDUCATION

Goals and Questions

✔?

- What/Who is ISTC?

- What is the Mentor Matching Engine?
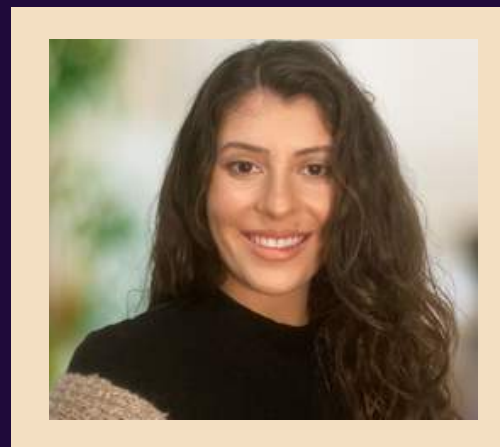
- How to be set up for success!
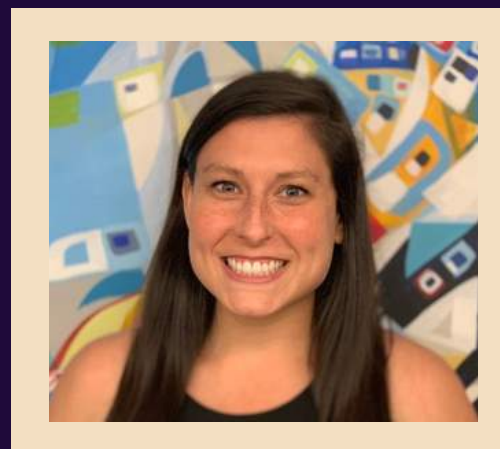
Meet the

ISTC Education Team

Tanvi Dharap (she/they)
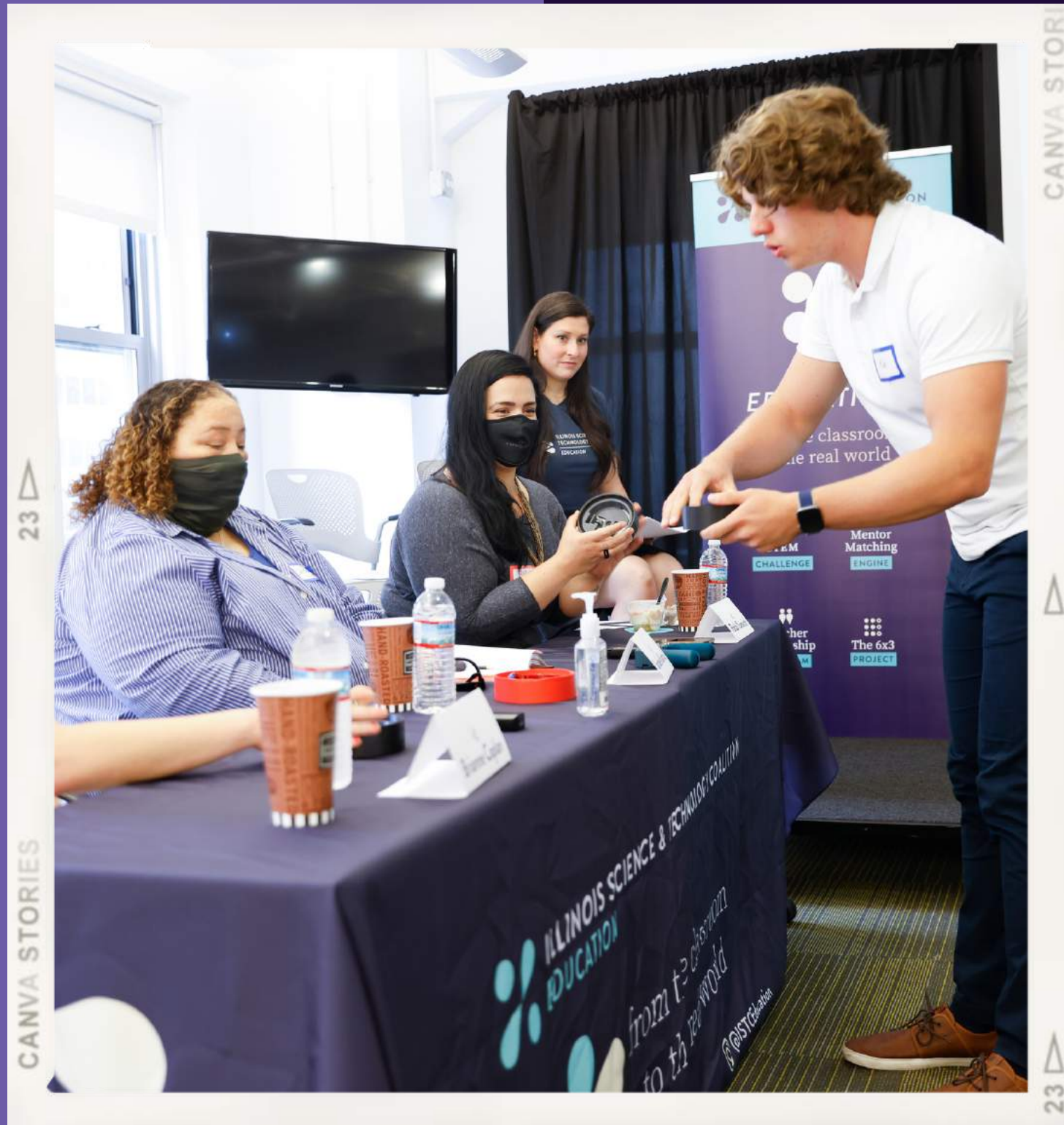
Program Manager of Mentorship

Julianna Grandinetti (she/her)

Program Coordinator of Mentorship

Jackie Navigato (she/her)

Program Manager of STEM Experiences

Becky Goldberg (she/her)

Director of Education

ISTC's Mission

1 Strengthen the talent pipeline within Illinois

2 Break down barriers to traditional mentoring

3 Create access for students and promote student agency

The Mentor Matching Engine

The Mentor Matching is an online platform that connects students and teachers with universities and companies.

1. All MME projects have to be at least 8 weeks long (we recommend budgeting 10 weeks so that all students are matched before the 8 weeks of back and forth begins)

2. All MME projects have to have weekly communication (if your class is set up for biweekly communication, make sure your mentor is aware)

GETTING ON THE MENTOR MATCHING ENGINE
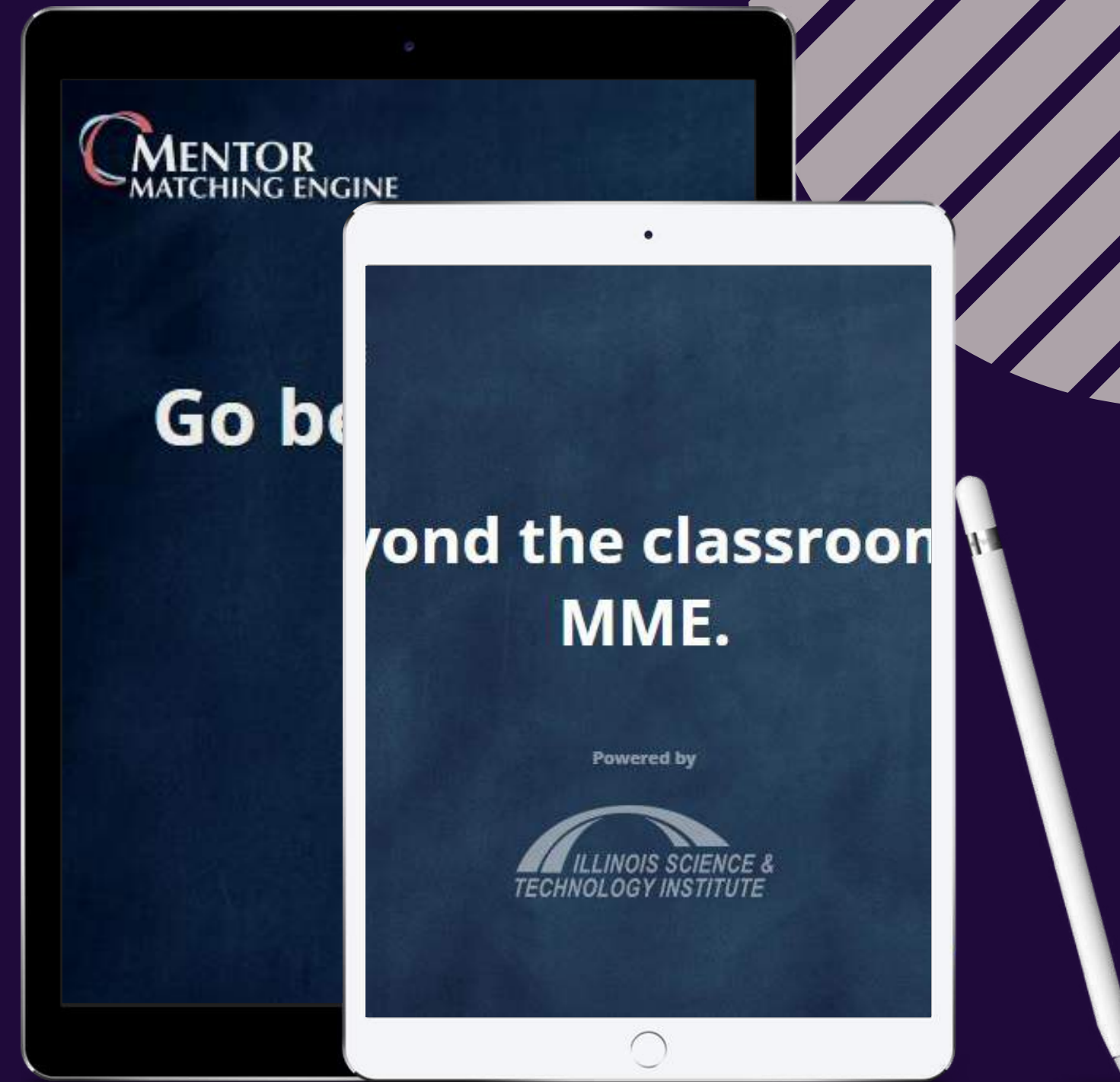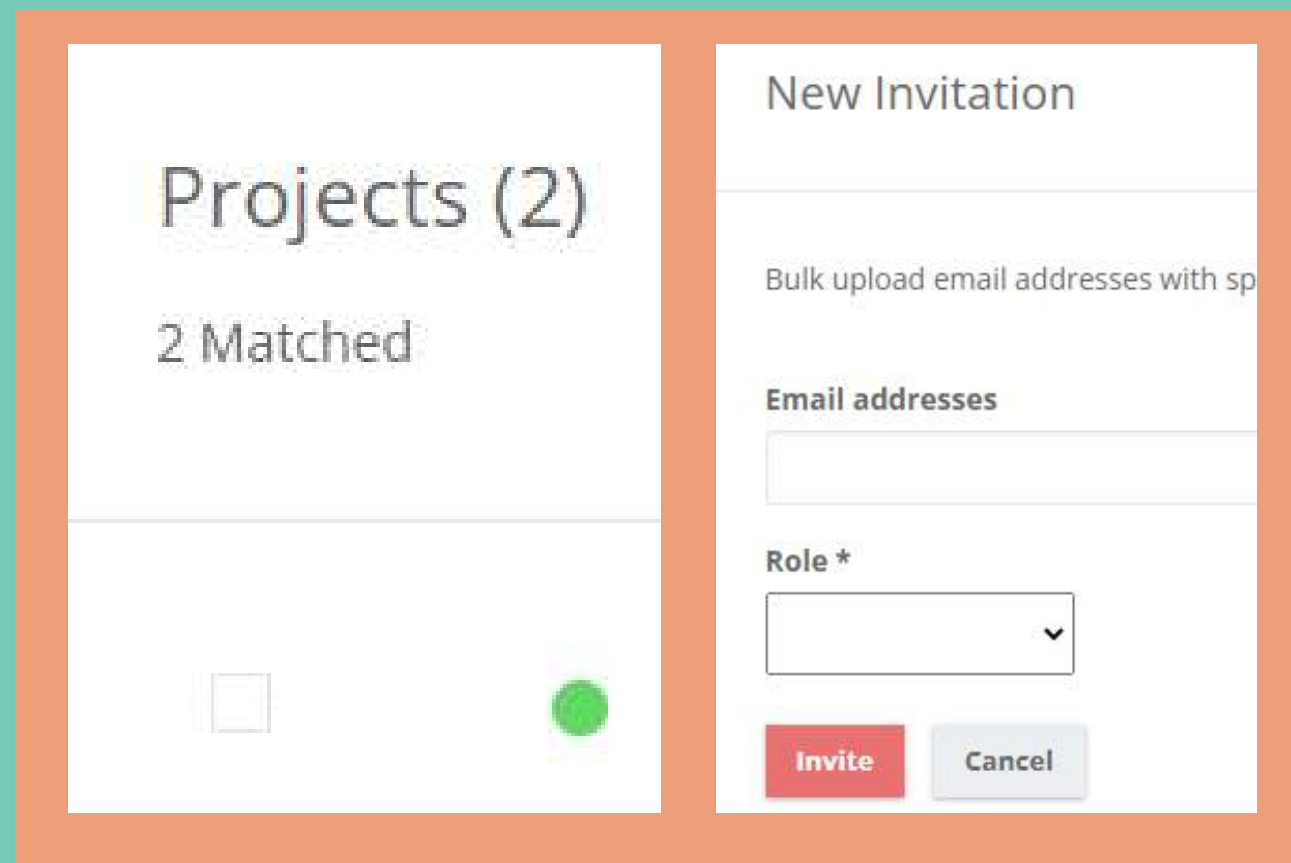
- Onboarding Students

- Student project Creation

- Teacher Approval

- **Notify ISTC**

- Requesting Mentors and BYOM

- Monitoring Projects

Teacher Toolkit

From Video Demos, to communication tools, and everything in between. Don't see what you need? Let us know!

TEACHER TOOLKIT

Setting Up for Success

ISTC is here to guide you in all aspects of MME! From getting students up and ready to selecting a mentor and beyond, please reach out with any and all questions.

Letter of Commitment

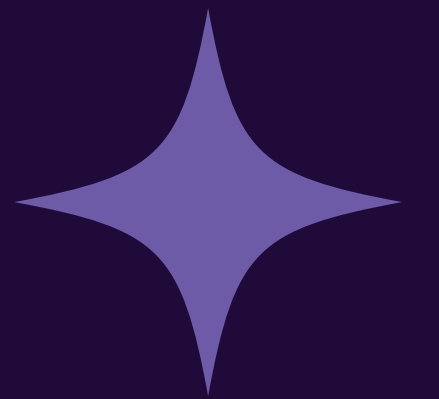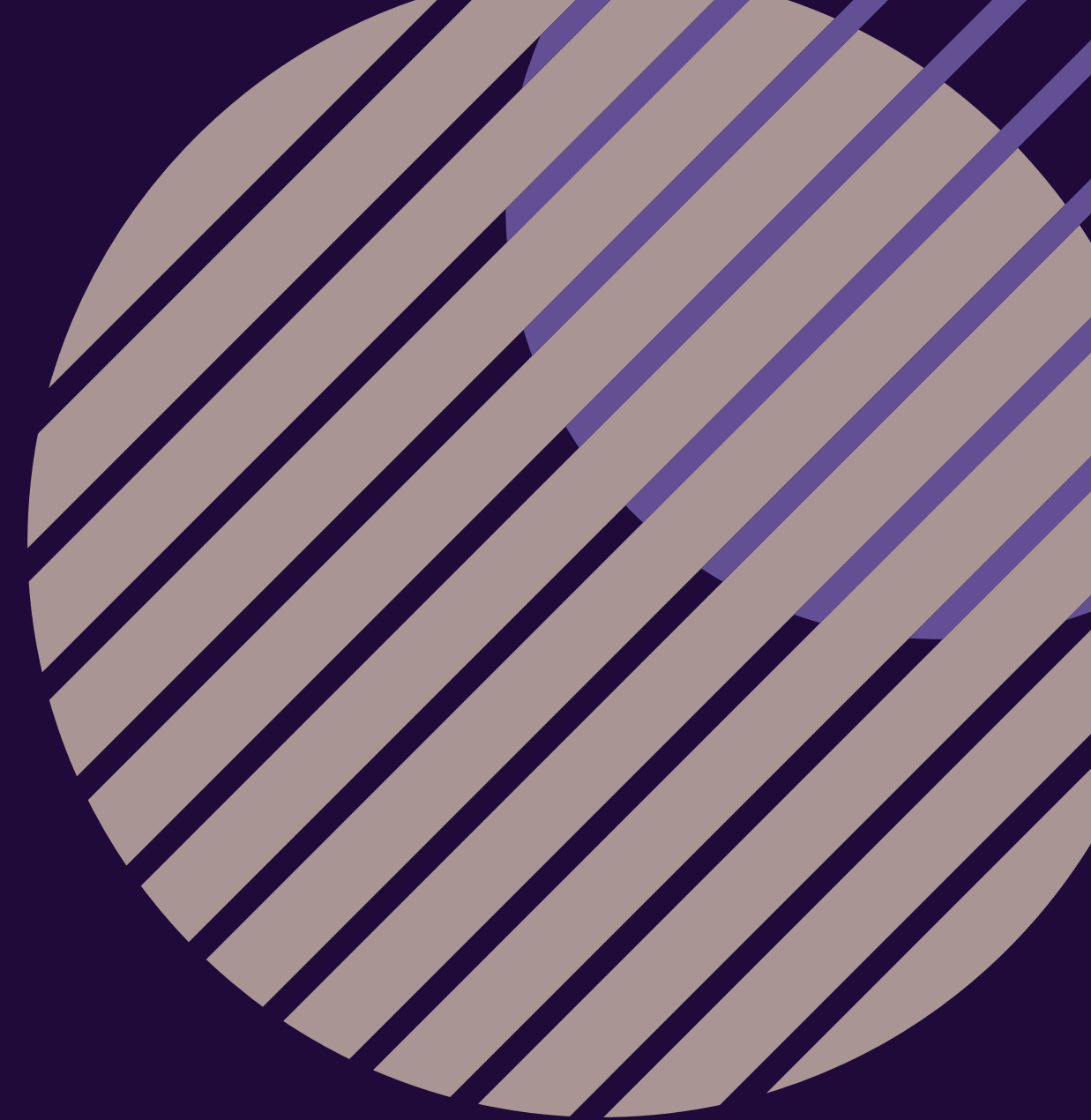## Communication

Additional Resources

Letter of Commitment

- Your school signed up to participate with a specific amount of projects. ISTC uses the Letter of Commitment as a broad guide to begin recruiting mentors.

- As you begin to plan your course, know that you can't exceed this number, but you can fall beneath it.

- Types of project/Subject matter review. Keep us posted as you learn more!

Students and Mentors

Expectation: weekly communication. If your classroom will be communicating less frequently than that, establish it either in the research details or in the very first post.
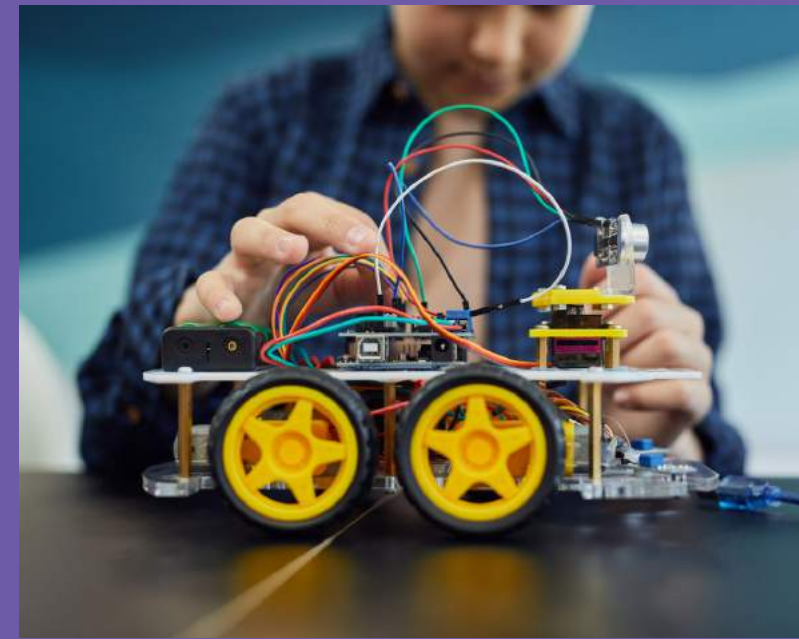
Students and Mentors (Again!)

Communication schedule: (STEM Fridays, Mentor Mondays), & tell their mentor when they plan to post.

Teachers and ISTC

Monthly emails: updates, deadlines, important tasks and awards!

Communication is Key

(between your students & their mentors and between you & ISTC)!

Teacher

Role: Teammates with the mentor!
Goal: Developing workforce and research skills in the student.

ISTC

Role: Point of contact for any breakdown in the project process
Goal: ISTC aims to support all parties through the mentoring process.

Mentor

Role: Primary resource for students.
Goal: Support research process and create bridge beyond high school

Student

Role: Students are the primary communicators on MME and the project leads
Goal: Build agency

Key Players in Communication

ISTC Check-ins and Support

ISTC will communicate via monthly emails and supplemental connection points when the following occur:

- Breaks in communication

- Necessary Nudge

- Security Precaution
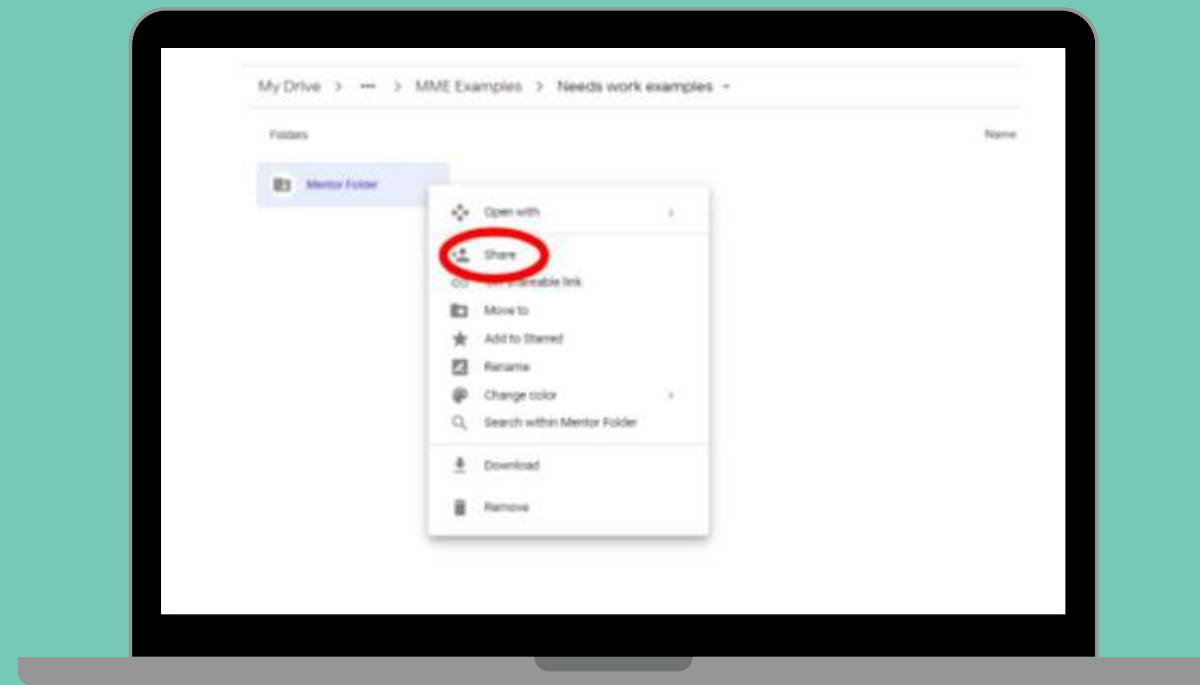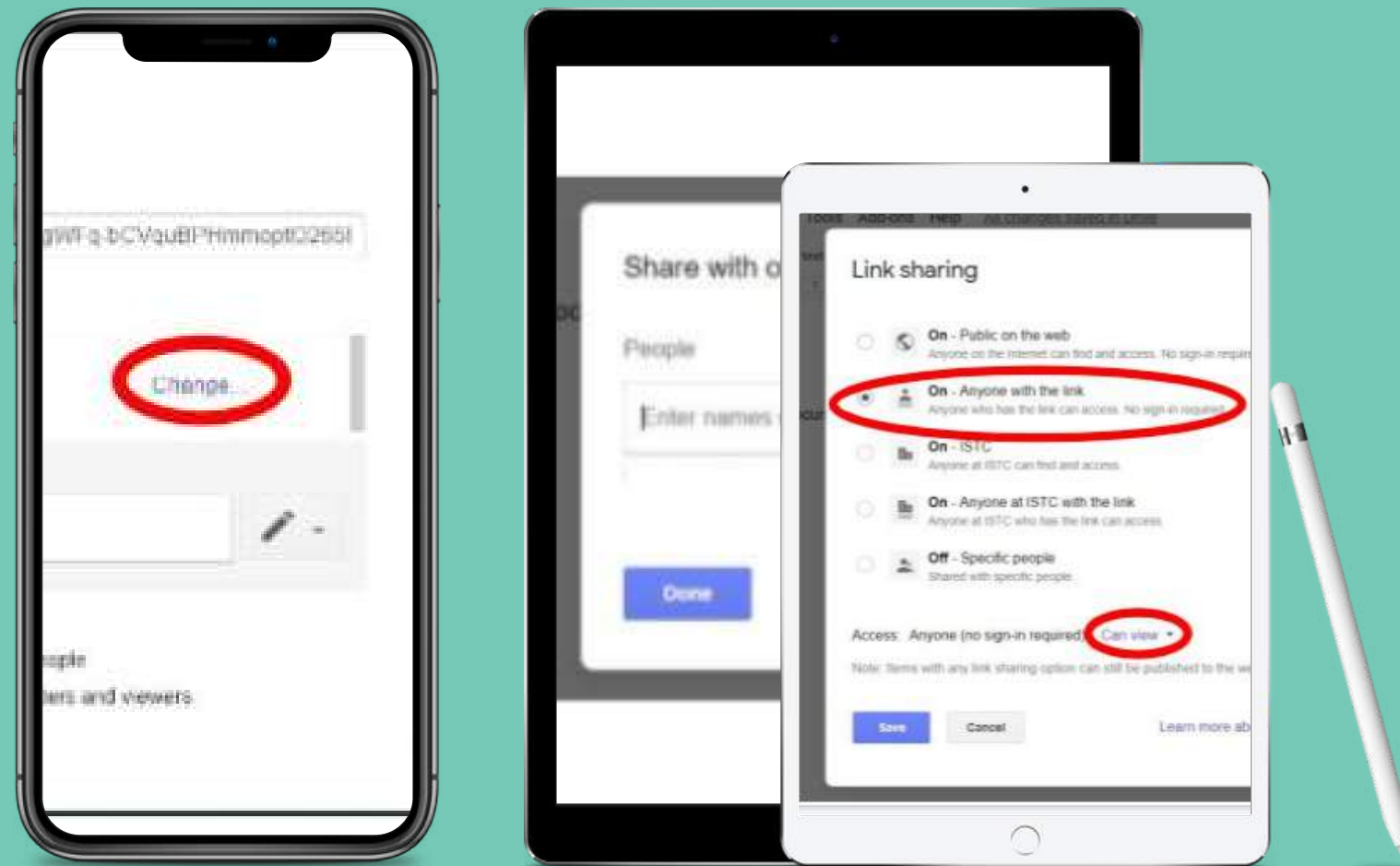
Let's Chat About Google...

When posting links, PLEASE ensure that link sharing setting are set to "Anyone with the link can view".
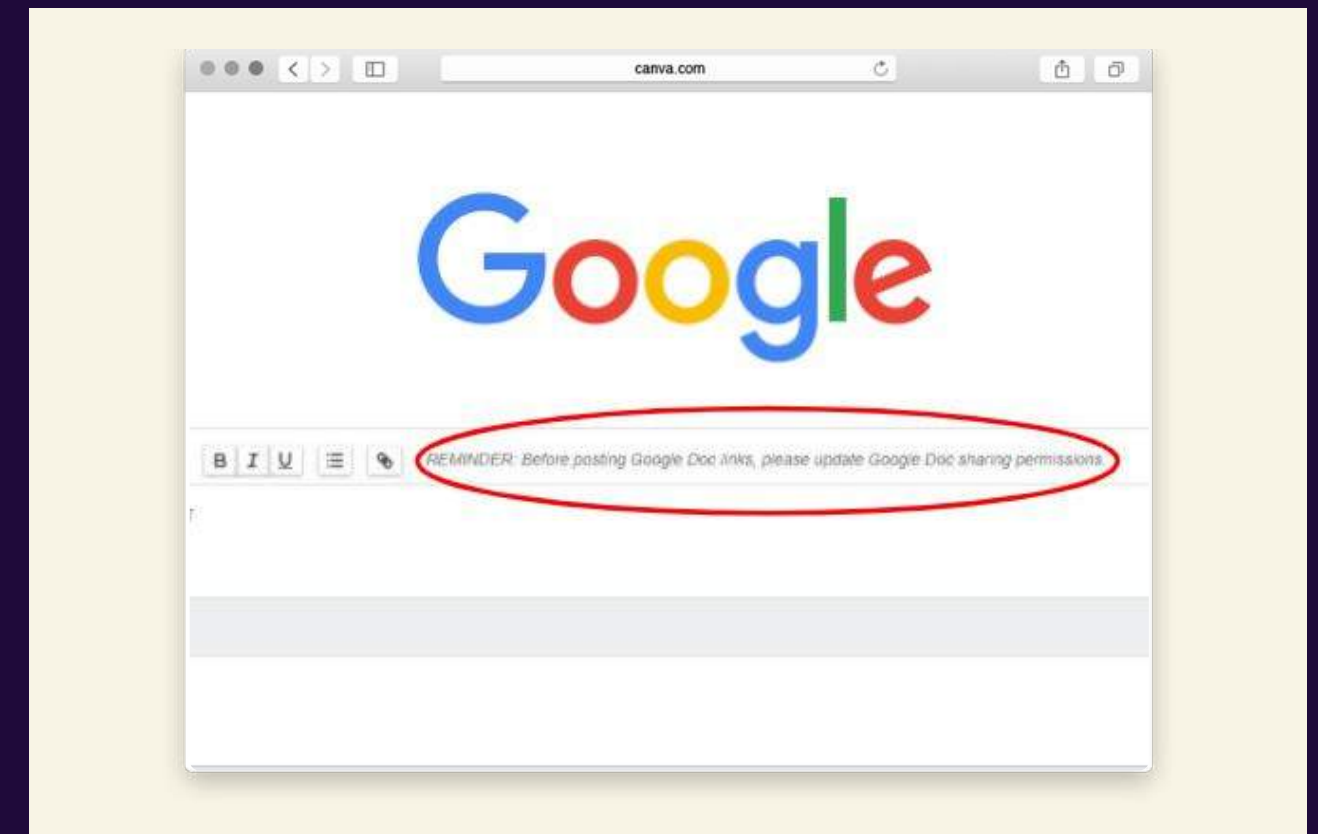
Teacher Communication:
How to utilize your mentor as a teammate!

First Post to Mentors

Say hello, introduce yourself, and set the tone.

Check-ins with Students

Continue to establish oversight

Direct Communication

Use the Participants tab and reach out

First Post

- Teacher first post establishes a line of communication
  - parameters and expectations.

- Mentors don't know which student, school, or type of class they'll be working with. Context is always helpful!

1. Rubrics, documents, general guidelines
2. Introduces the course
3. Timeline
4. Establishing oversight and direct line of communication

Teacher:
Hello Mentor, and thanks for agreeing to work with Student! I've attached a couple documents to answer questions you might have about the course and your role as a mentor. This process 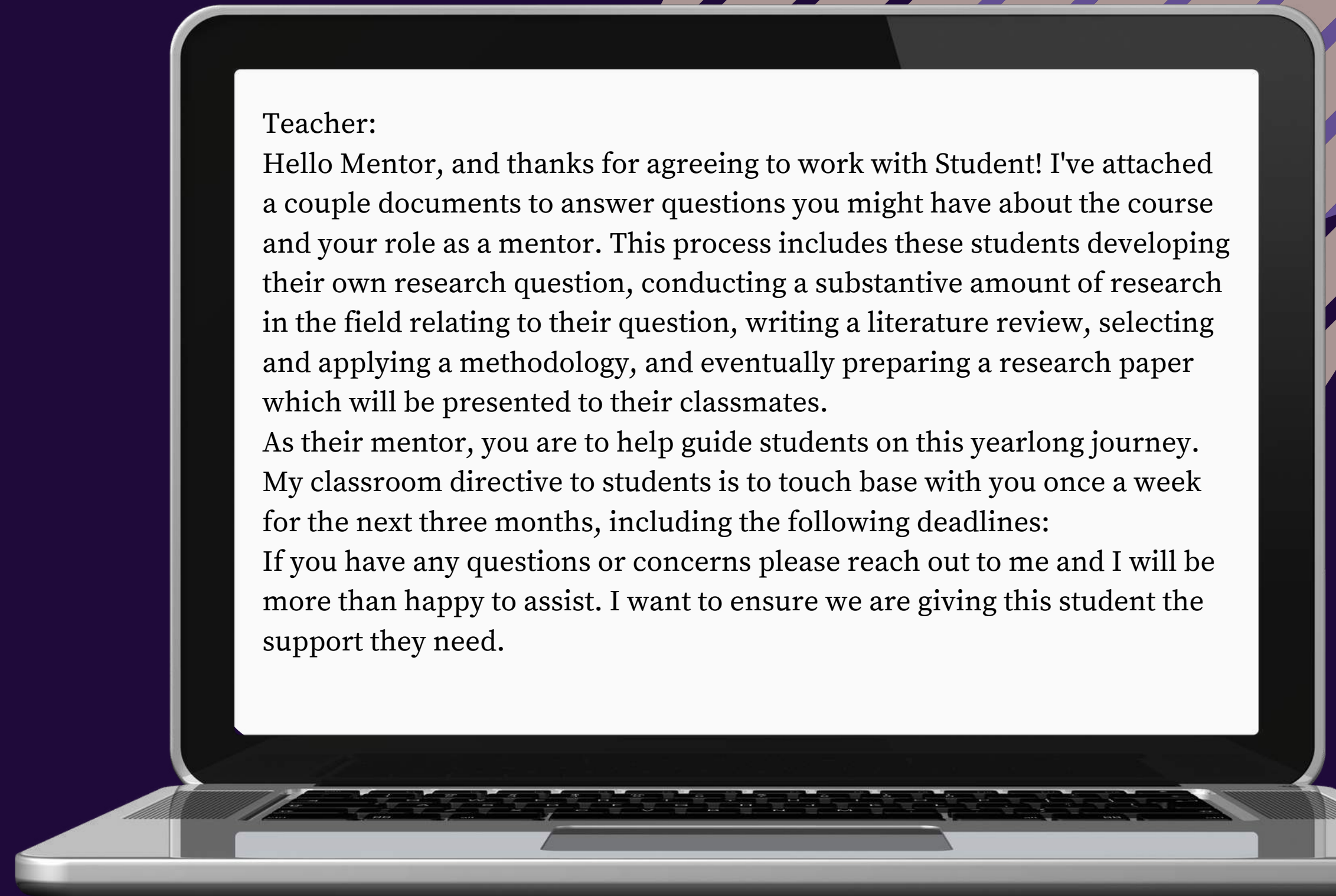includes these students developing their own research question, conducting a substantive amount of research in the field relating to their question, writing a literature review, selecting and applying a methodology, and eventually preparing a research paper which will be presented to their classmates.

As their mentor, you are to help guide students on this yearlong journey. My classroom directive to students is to touch base with you once a week for the next three months, including the following deadlines:

If you have any questions or concerns please reach out to me and I will be more than happy to assist. I want to ensure we are giving this student the support they need.

Check-ins

Checking in with your student over MME in addition to in person/in class time signals to the mentor that there is movement within the project.
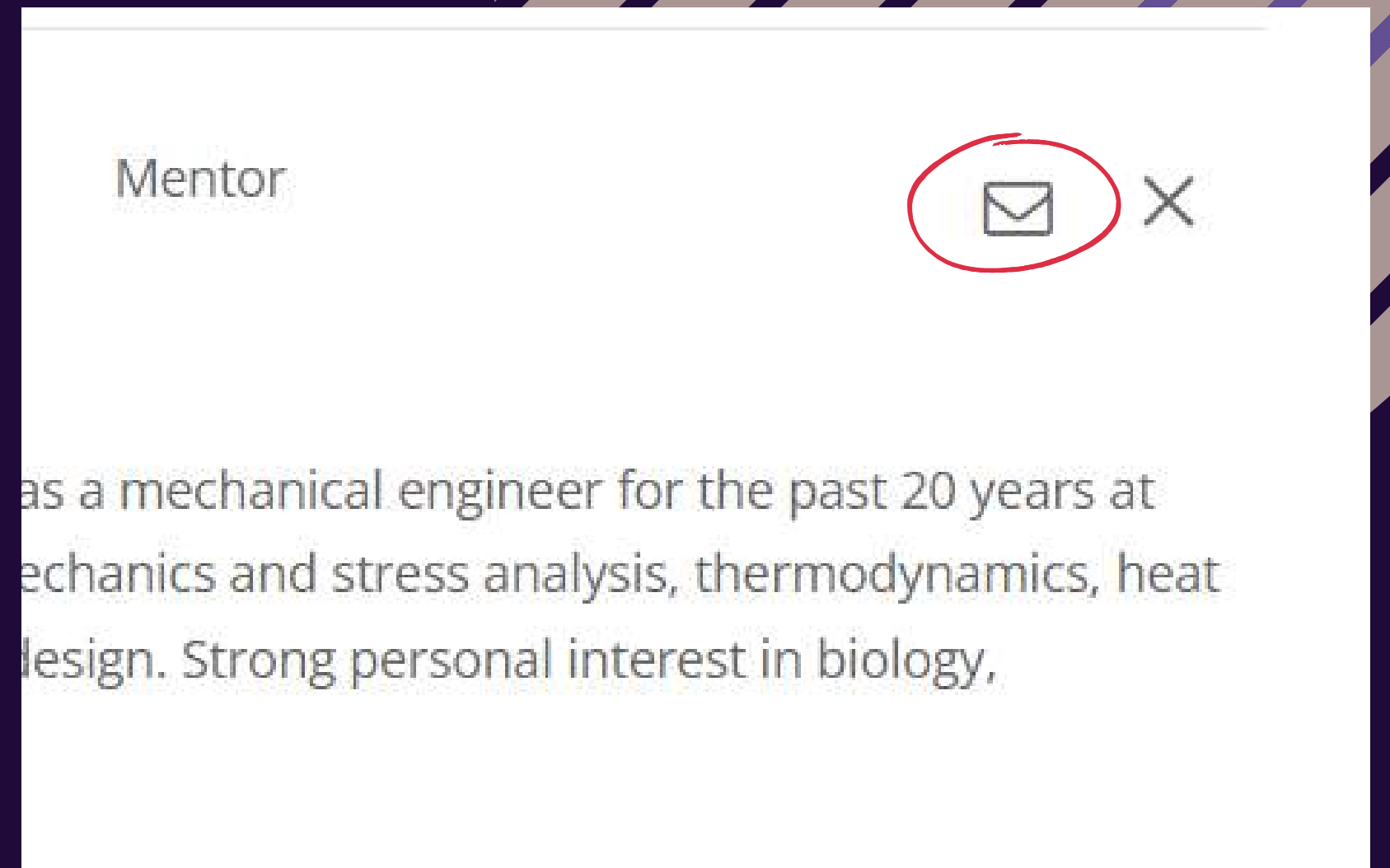
Teacher:
Your communications with mentor have been excellent so far. Be sure to find time to keep that communication "solid." He has asked you some questions, so if you don't have time to give him a thorough response, let him know that you will get back to him on [insert date]. That way, you show him that you value his time and guidance.
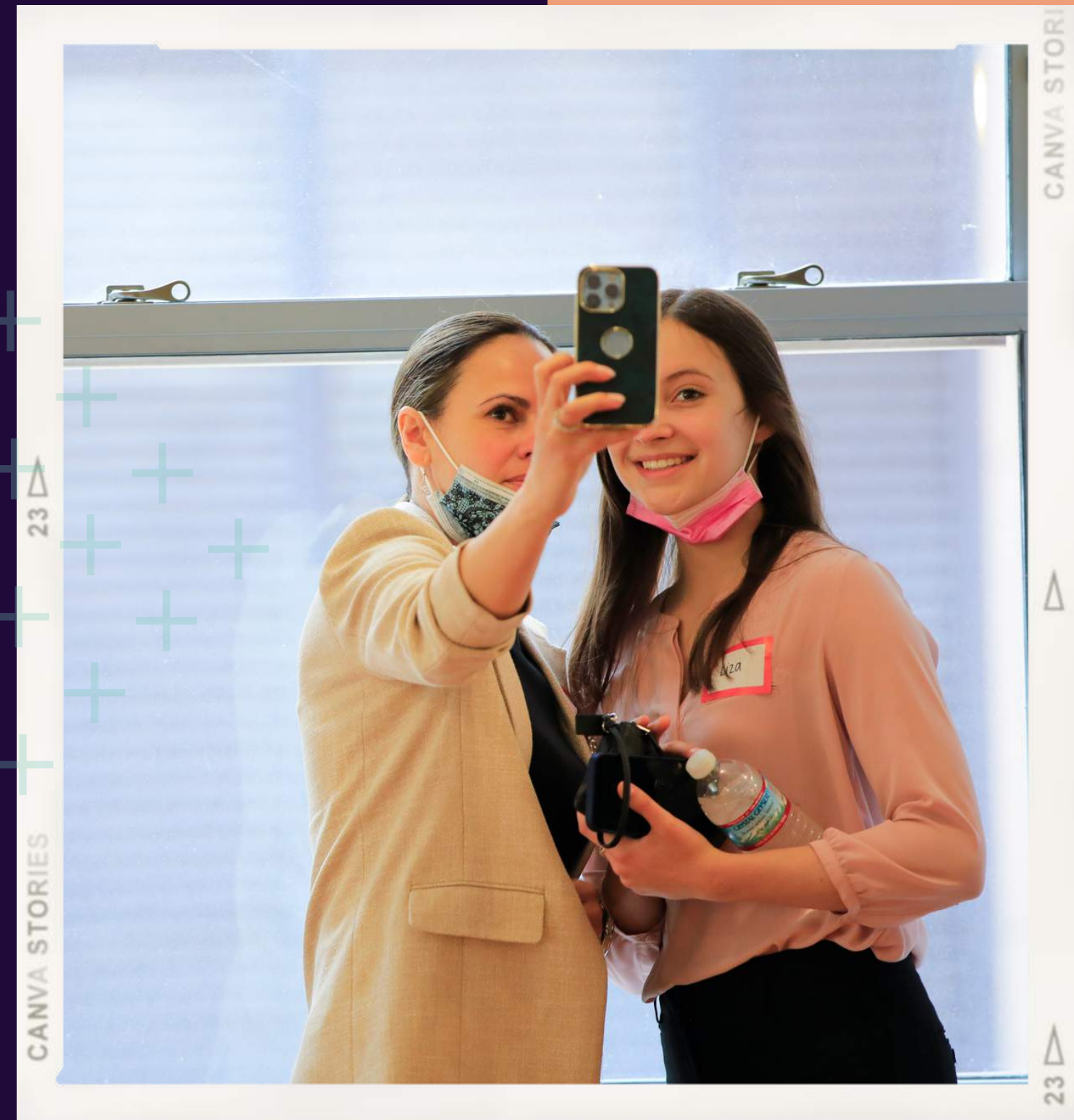
Direct Outreach

- You can send messages directly to the mentor through the Participants tab.
    - These messages will be delivered directly to their email inbox.

Teacher and Student

How to support your students

through the project process!

Onboarding

Some stellar tips and tricks from the classroom of Kristen Masse

1

Before Matching

Mentors see the project description before accepting a project.

2

Mentor Shopping

Strategies to help students think broadly and choose their mentors

3

First Student Post

Students should post within 48 hours of a mentor agreeing to take on their project
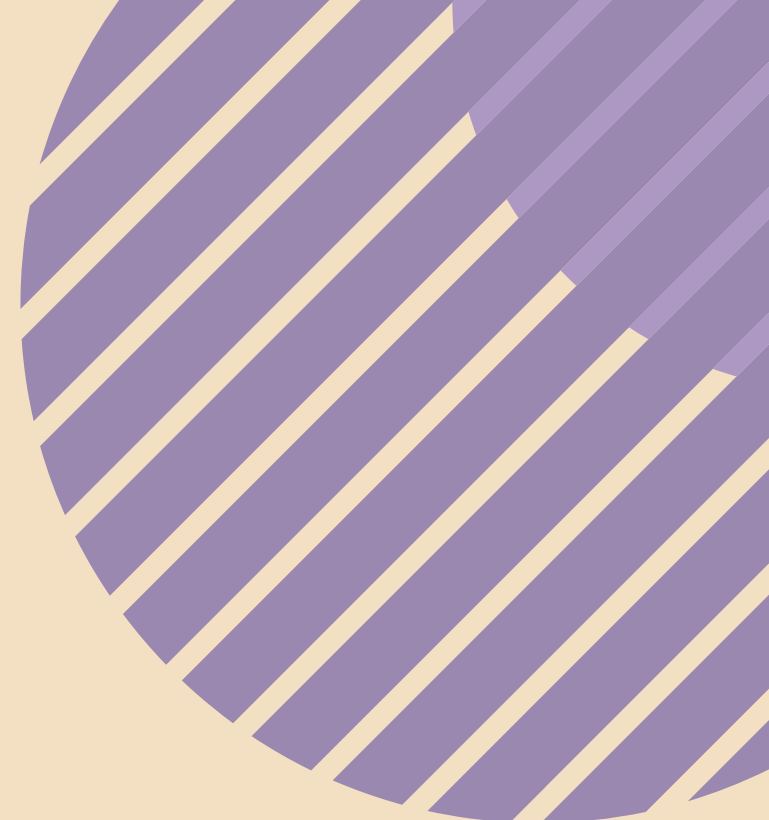
1

Before Matching

Creating a Wishlist

Students create a profile of their "dream mentor"
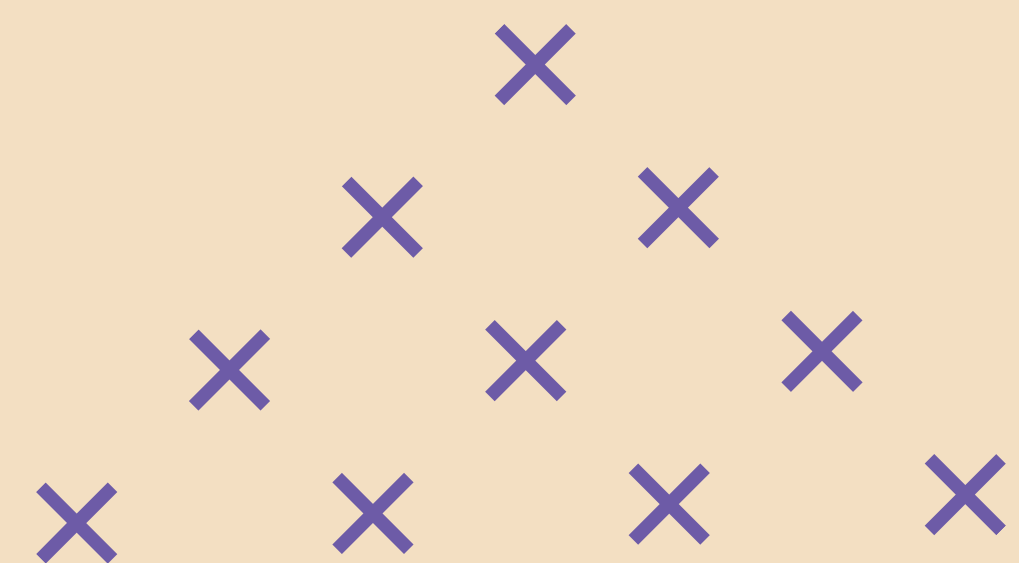
Drafting Profiles

Students draft their research description and letter of introduction

Setting Up

Students set up a folder on google drive with all documents and materials that are shared on MME

Questions	Wish List
Demographics Would you be more comfortable working with someone of a particular age, gender, etc.? Justify your response.	
Discipline Which discipline does your project fit? Explain how you know this is the correct discipline. Consider: Art, history, social science, natural science, formal science, applied science, etc.	
Expertise What sort of expertise would you like your mentor to have? Would you prefer a mentor working in academia as a graduate student or professor? Or would you like someone who is currently working in a field related to your project topic? Be as specific as possible!	
Role What role do you hope your mentor will play in the inquiry process? In what specific ways do you hope your mentor will help you? Think about how they might help **now** and **over the next six months**.	

Creating a Wishlist
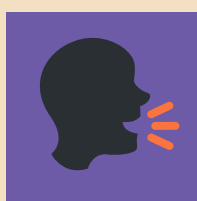
Drafting Profiles
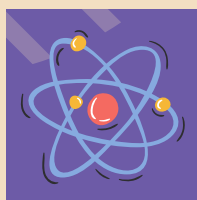
Subject Matter

Introduces the subject matter the student is interested in exploring - either a specific question or a general interest

Timeline

Gives a concrete timeline

Establish Expectations

Clearly explains what the student is looking for help from their mentor regarding (This also helps the student jump right in when they're matched with a mentor!)

Background

Gives the school and course that the student will be working in

---

Before shopping for a mentor, you need to prepare your "profile." Remember that you are trying to make a good impression! Convince potential mentors that working with you will be a fulfilling experience! Follow the directions below to draft your Research Description and Letter of Introduction.

I'M WORTH IT

Research Description (1–2 paragraphs)

Draft your "Research Description" below. Give potential mentors a brief overview of the AP Research course, including a timeline for the project. (You may want to go back to the Course Description and Expectations for some of this information.) Describe your project goal and/or research question, why you have selected the goal/question, and your current thinking about how you plan on going about your research. NOTE: Be sure to revise your "Research Description" as your project evolves! (This is especially important if you end up needing to shift to a different mentor later in the process, which happens when your topic changes significantly.)

[Type your response here.]

Letter of Introduction (1–2 paragraphs)

Draft your "Letter of Introduction" below. Tell potential mentors a little bit about you -- beyond just your role as an AP Research student. Include information about your interests outside of school, including hobbies, activities, jobs, etc. Take advantage of the opportunity to write a compelling letter of introduction. This is great practice for professional writing! (Feel free to use text from a college application!)

[Type your response here.]
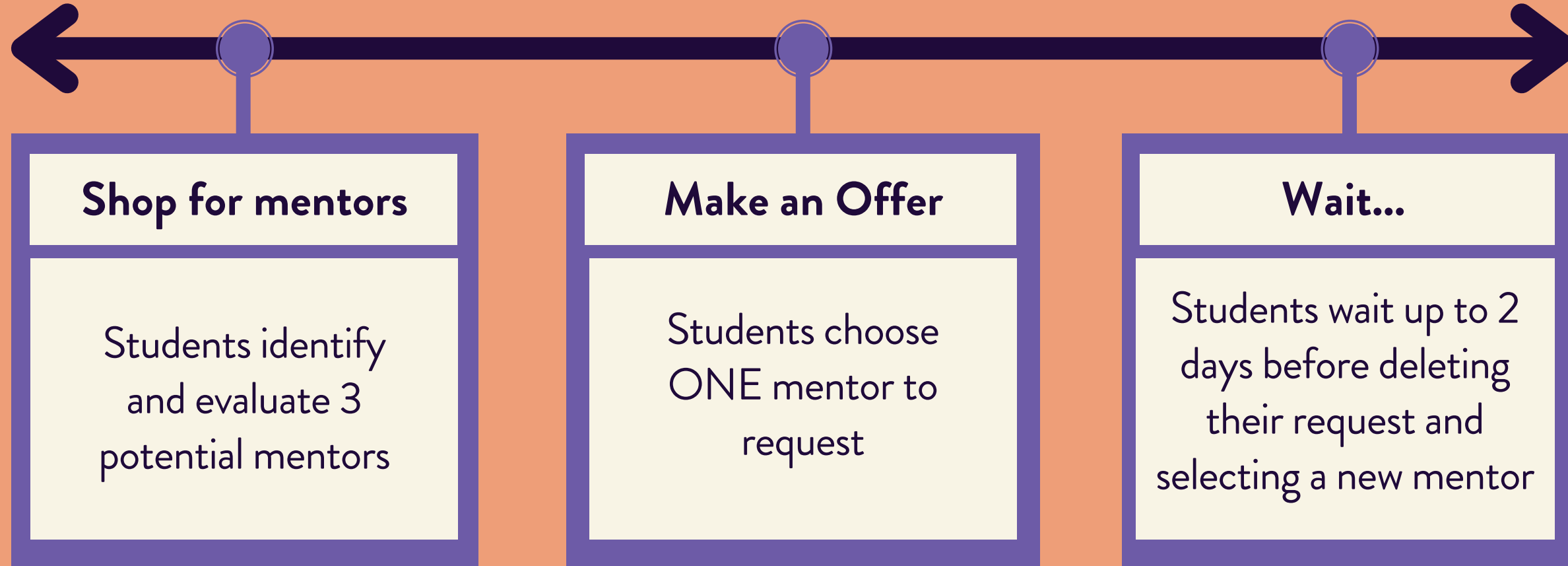
Setting Up in Google Drive

Google Drive Folder
- Teacher oversight
- All materials for MME in one centralized location for each student/project

2

Mentor Shopping

Shop for mentors

Students identify and evaluate 3 potential mentors

Make an Offer

Students choose ONE mentor to request

Wait...

Students wait up to 2 days before deleting their request and selecting a new mentor

- Students often think very specific when requesting mentors. Oftentimes students don't need the worlds leading expert on their specific topic, but rather someone who can walk them through methodology/the research process.

- If you're having trouble finding the correct mentor for a student, please get in contact with the ISTC team. We're always happy to help find a good match.

- The minimum 8 week project length does not include the time it takes for a mentor and student to match.

Step 4: Go Shopping for a Mentor!

You will get a list of mentors in your chosen research categories. Now you get to "shop" for one who fits some or all of the criteria you established in your wish list in **Step 1**. Start by choosing three potential mentors. For each one, copy and paste their bio into the white box. Then, justify your choice in the gray box.

Option #1	[Copy & paste the mentor's bio here.]
	[Justify your choice here.]
Option #2	[Copy & paste the mentor's bio here.]
	[Justify your choice here.]
Option #3	[Copy & paste the mentor's bio here.]
	[Justify your choice here.]

Mallory Lynn

Global Marketing Manager - Renal Care Solutions
Baxter Healthcare

I have a bachelor's degree in Finance from the Un
MBA at Northwestern Kellogg School of Managem
3 years in corporate finance as part of a rotationa
work abroad for 2 years, 1 in Warsaw, Poland and
spent the last 2 years in global marketing. I now a
solutions. Outside of work I am very passionate a
favorite cuisines are Vietnamese and Italian.
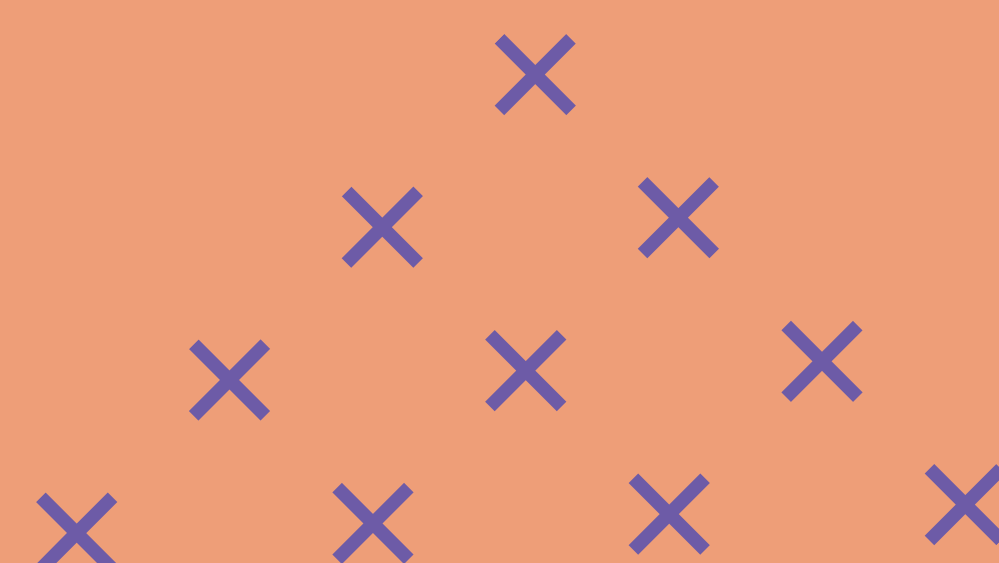
Business, Marketing

Add +

Note:
CPS Volunteers

Teacher

Send ISTC the names of all mentors who have accepted student projects

ISTC

Distribute the CPS volunteer form and collect ID from mentors and provide that information to the volunteer coordinator at each CPS school

First Student Post

After a mentor accepts a student's project, student will post as soon as possible, and no more than 1 business day later.

- Project Details: Context, Timeline, Deliverables
- Response to Mentor's expertise description
- How can the mentor best support you?
- Ask Specific Questions

Dear ==Dr./Mr./Ms. Mentor's Last Name==,

My name is ==Full Name==, and I am a senior at ==School Name== in the Advanced Placement (AP) Capstone Research Course. I am looking forward to getting your first-hand insight about the research I am conducting on ==general topic== for the course!

AP Research is the second course in the AP Capstone program and requires me to deeply explore an academic topic, problem, issue, or idea of interest to me. This academic year I will design, plan, and implement an investigation to address a specific research question. The course culminates in an academic paper of 4,000-5,000 words, along with a presentation and oral defense. If you are interested in learning more about the AP Capstone program, please follow this link to the College Board's website: https://advancesinap.collegeboard.org/ap-capstone. My teacher will be contacting you with additional information about the program and your role as my mentor.

The College Board encourages AP Research students to connect with expert advisers in their research fields. **Write a few sentences on how you know this person would be an expert. Share brief but specific commentary on and/or appreciation for their work. If applicable, read something they have published, and respond to it!**

Over the next six months, my goal is to communicate with you at least weekly, and I hope that you will provide general feedback about my research question, methods, academic paper, and oral defense. **Insert a few sentences here about specifically how you hope your mentor can support you. Use some of your questions from your MME_Prep Google Doc! Be upfront about any obstacles you anticipate.**

As we get started, I have a few questions for you:
1. Ask the mentor how they would like to be addressed.
2. Propose a communication schedule, and ask if the mentor is comfortable with it. (Example: "I will send you an update each Friday and respond to your messages within three school days. Are you able to commit to providing feedback within five business days?")
3. Ask the mentor if they have participated in other MME projects, and seek their advice on how to make the mentoring process most effective.

Thank you for your time, and I look forward to speaking with you soon.

Sincerely,

STUDENT:

Hi, my name is L. It is a pleasure to have this experience with you and to learn more about a fascinating topic. I am interested in the topic of climate change in Australia, and its impacts on agriculture and livestock. Many impacts from climate change would be shown in Australia, such as lack of food, increase in the pricing of goods, and loss of livestock. I want to understand why climate change has such a big effect on the farms, and how it can be prevented or decreased. With your knowledge of environmental studies, I would love to gain more information to benefit my project and to adapt to my lifestyle! At the moment I am starting my research and trying to get a better understanding as to just why the "cause and effect" happens. My next challenge is to more clearly define the problem. My final project is due around the end of April. However, for a heads up, I will be out of town mid March so I will be unable to communicate then. By the way, how would you prefer I address you? Thank you for agreeing to be my mentor, and I am excited for the process!

Monitoring & Ongoing Communication

Monitoring

Establishing a pattern of communication (Mentor Monday, STEM Fridays); Nudging online

Nudging and Updates

Students should feel empowered to nudge their mentors as well! Mentors are full time students, employees, parents, etc. Sending a quick follow up message to hold them accountable is both efficient and a good skill for students to practice
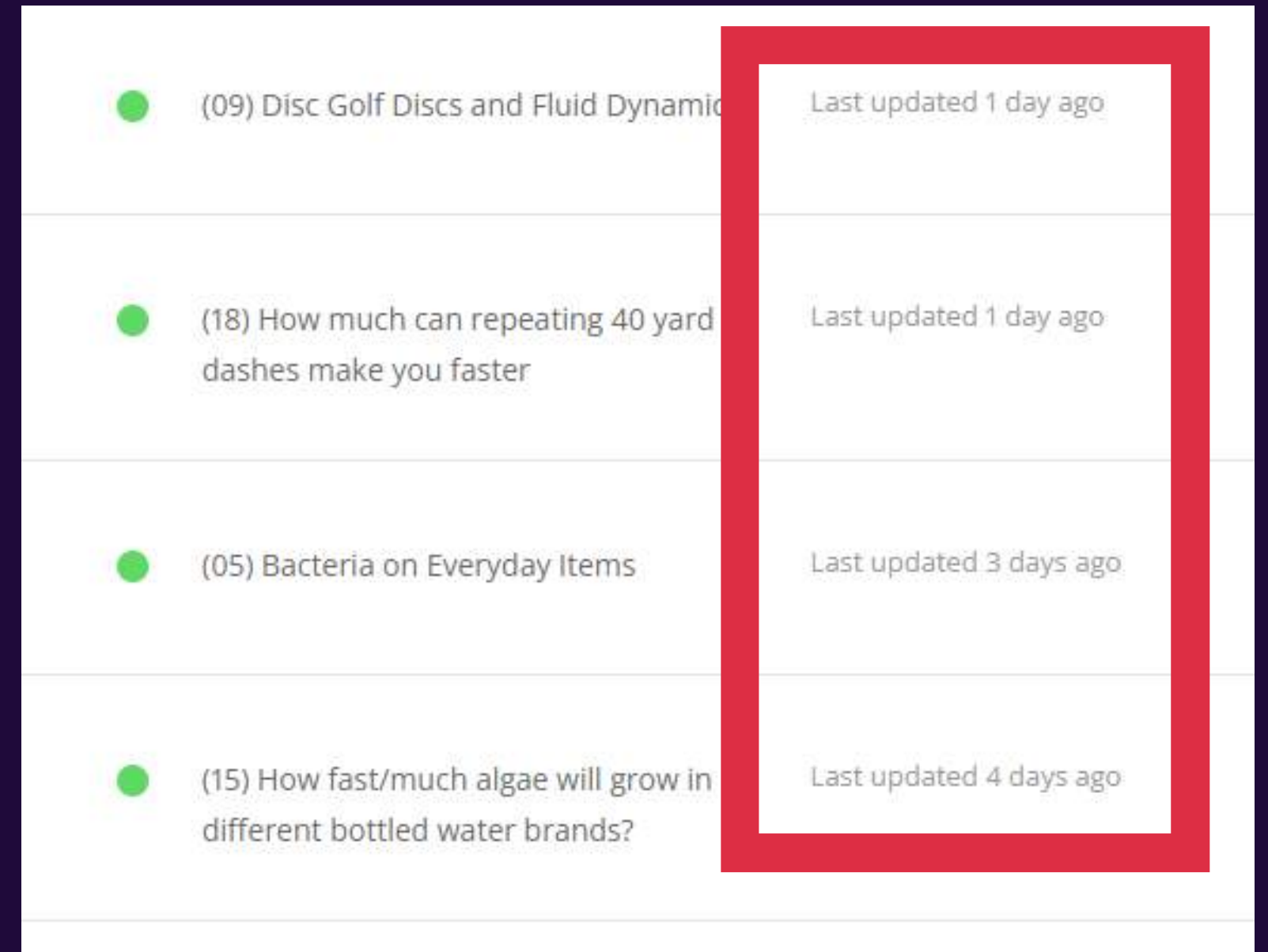
Final Stages

Thanking the mentor and sharing findings

Monitoring on MME

- Tracking project updates
  - On MME, projects that are updated most recently will show up at the top of your projects page
  - For streamlined way to check which projects need communication reminders, you can check the bottom of the list
  - The projects will show how long it has been since the last update and communication in the project (but not who last communicated)
  - **Monitoring is a key responsibility! If ISTC notices there hasn't been communication in your projects, we will nudge both you and the mentor**
  - Why is monitoring important? Consistency & Communication

MENTOR:
YES! I did.
For question four you should put something like 1-2 times a year or 4-5 times a year etc in order to define/ determine the difference between rarely, sometimes, etc..
For question 6 put i.e so that it looks like this (i.e goodwill, salvation army). It's a small change, but it matters!
Other than that your survey is really good! In addition, it is not really long, so more people are more likely to take the survey.

STUDENT 12/02/2019 11:23AM CST
Have you looked at my question document?

STUDENT 11/19/2019 12:30PM CST
Here is the link to my survey question document LINK if you could go read them and give me feed back or ideas for more questions that would be great thank you.

STUDENT
I just wanted to come back and thank you so much for this amazing mentor experience! Having the opportunity to learn from you and work with you has been so beneficial for me not only as a student, but a person in general. You went above and beyond for me and I cannot express to you enough how grateful I am for you!
I appreciate all of the time you spent helping me edit my paper and carry out my research from the beginning of my literature review to the ending presentation. Before working with you I had no idea how to write a research paper and especially how to find the best sources, now I am confident in my academic paper thanks to you!
I hope that we can stay in touch throughout the future as I enter college at the University of Tennessee. I also hope you know if you need any assistance in the future feel free to reach out, I would love to repay you for the help you have provided me if I can ever do so.
Thank you SO much!

Video Conferencing

ISTC Policy

- Teachers are always alerted when a VC is scheduled. There's no way for students and mentors to conference without the Teacher being alerted.

- Our policy is that teachers should be supervising the video conference, either in the classroom or by joining the video conference directly.
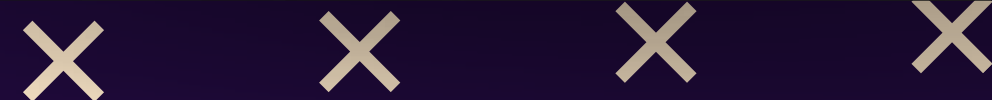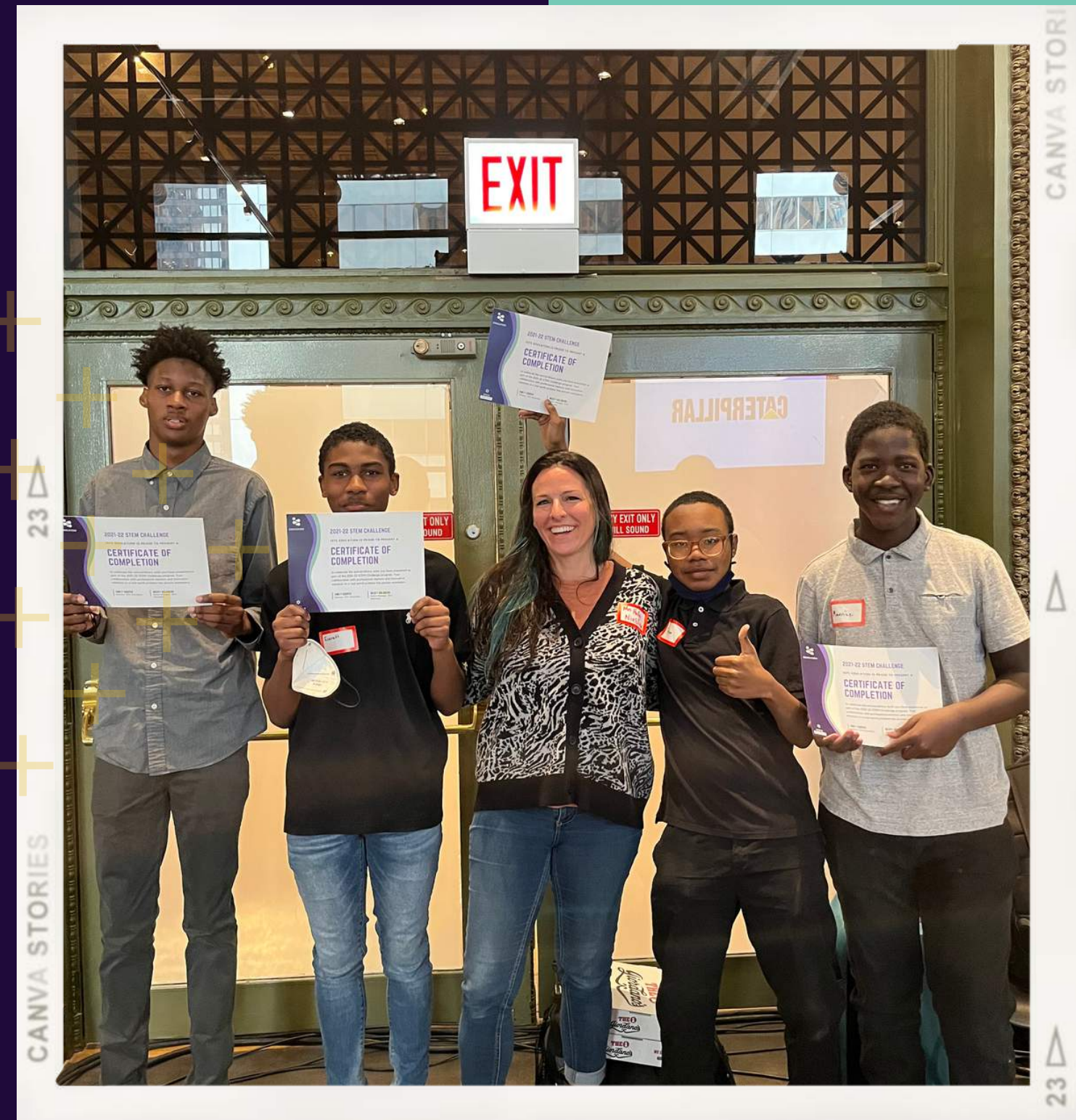
Student Research Showcase

At the end of the year, we host a student research showcase to celebrate students' work with their mentors!

On your teacher contract, you will be able to vote for different options you feel will best accomplish this goal:

- "Gallery Style"
- "Science Fair Style"
- "Showcase Style"

Final Highlights

01 **Communication!**

We are here for you! We can't fix a problem we don't know about--please let us know if there's anything we can support with!

02 **Teacher Toolkit**

Please reference the teacher toolkit to find those wonderful worksheets to help guide your students through the MME onboarding process.
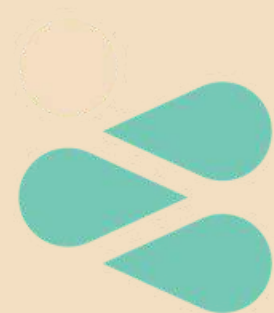
03 **First Posts**

Both teachers AND students will be making a first post on MME -- the more context for mentors, the better!

04 **Creating a Schedule**

Create a schedule for when students will be posting on MME weekly, and support them in communicating this schedule with mentors.
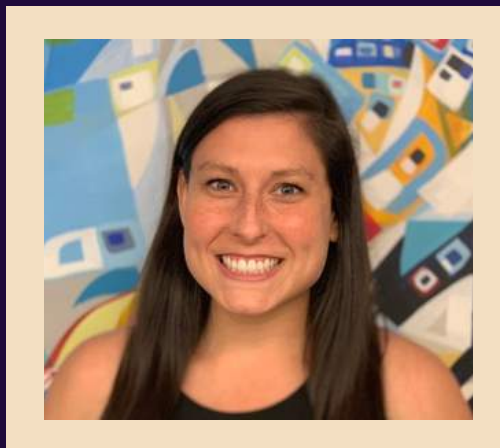
Meet the
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Jackie Navigato (she/her)

Program Manager of STEM Experiences

Becky Goldberg (she/her)

Director of Education

Agenda 2022-23

Welcome Back!

ISTC

Outline Expectations on MME

Teacher Session 1

Sarah Baranoff
"Putting Students in the Driver's Seat"

Alyssa Walser
"Setting Everyone Up for Success: MME Organization and Research Structure"
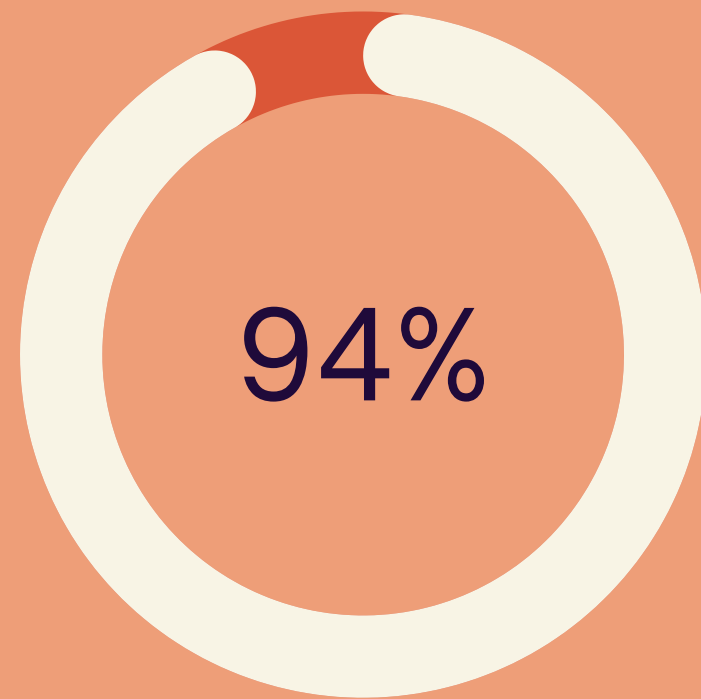
Mentor Panel (& Lunch)

Kate Bishop
Zach Sommers
Julianna Grandinetti

Teacher Session 2

Christopher Thomas
"More Than a Computer Program"

Julianna Grandinetti
"Diving in to the Research Process" (General)

Impact 2021-22

94%

Students reported an increased confidence in their STEM and/or research skills
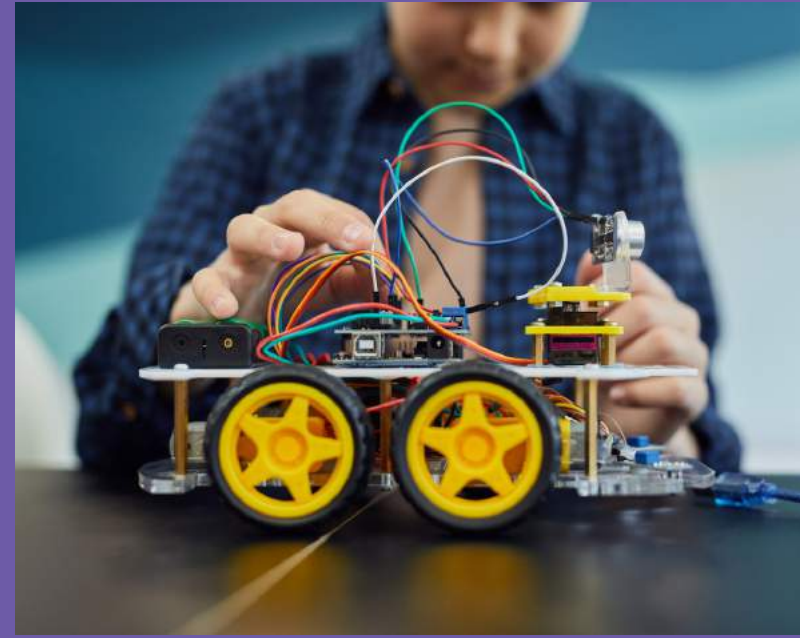
88 % of students reported it was their first time working with a mentor.

Students and Mentors

Expectation: weekly communication. If your classroom will be communicating less frequently than that, establish it either in the research details or in the very first post.

Students and Mentors (Again!)

Communication schedule: (STEM Fridays, Mentor Mondays), & tell their mentor when they plan to post.

Teachers and ISTC

Monthly emails: updates, deadlines, important tasks and awards!

Communication Best Practices

(between your students & their mentors and between you & ISTC)!

ISTC Check-ins and Support

ISTC will communicate via monthly emails and supplemental connection points when the following occur:

- Breaks in communication

- Necessary Nudge

- Security Precaution

ISTC Expectations

Monthly Emails

- Monthly emails are critical!

- Please read in FULL and respond!

Monitoring on MME

- reach out to ISTC if there is a break in communication--we are happy to nudge mentors
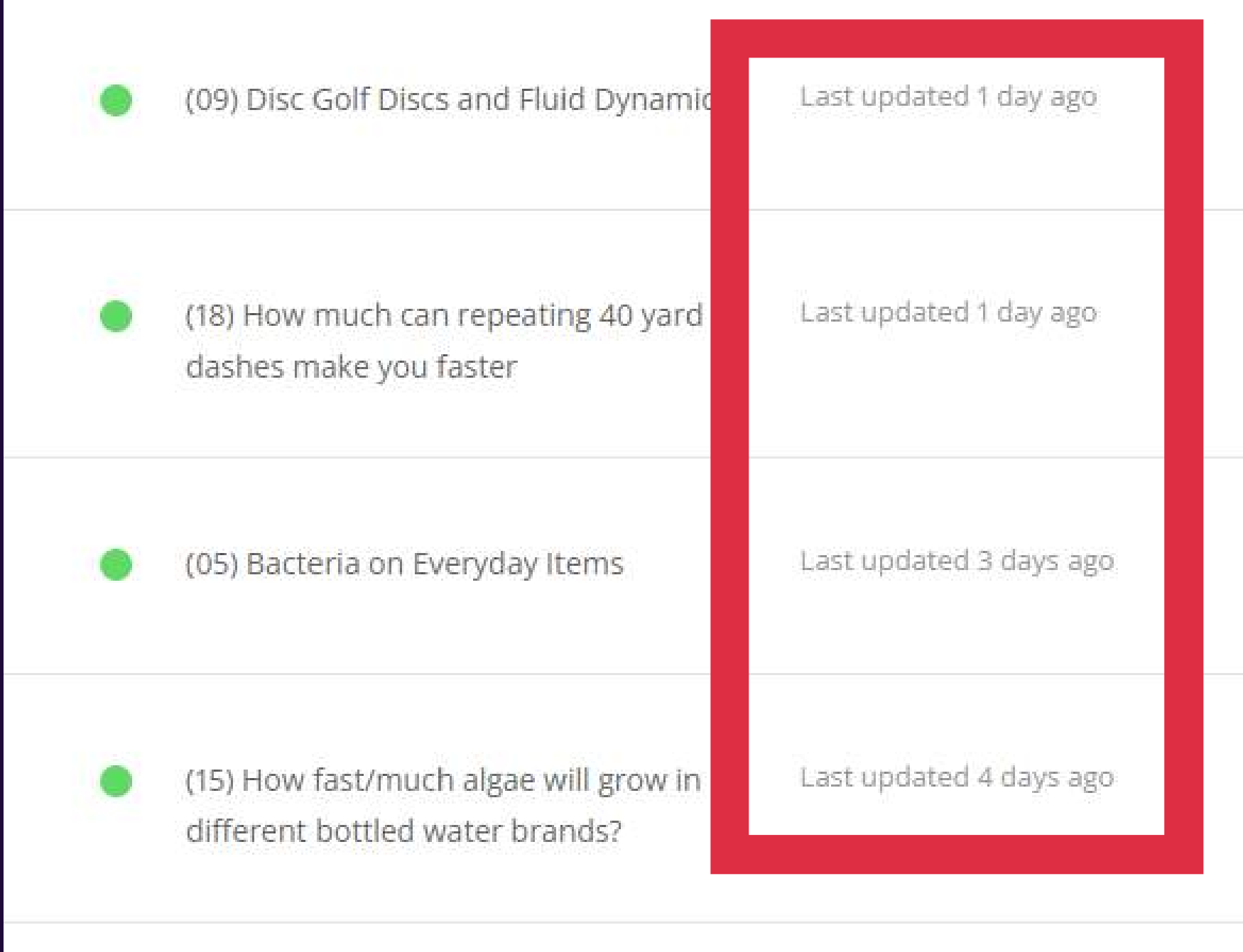
MME Emails

- Safety - You will receive automated emails from MME...
  - every time a student or mentor posts on MME
  - when a video conference has been scheduled
- Monitoring - You will receive automated reminders from MME...
  - If there has been no communication or movement within a project for 14 days, 21 days, and 25 days (students, mentors, and ISTC will also be notified)
    - If there has been no movement within a project for 28 days, ISTC will archive the project

Monitoring on MME

- Tracking project updates:
  - For streamlined way to check which projects need communication reminders, you can check the bottom of the list
  - The projects will show how long it has been since the last update and communication in the project
  - **Monitoring is a key responsibility! If ISTC notices there hasn't been communication in your projects, we will nudge both you and the mentor**
  - Why is monitoring important? Consistency & Communication

Teacher Toolkit

From Video Demos, to

communication tools, and

everything in between. Don't see

what you need? Let us know!

TEACHER TOOLKIT

Mentor Expectations

- Mentors attend 2 required training sessions
  - MME Best Practices, led by ISTC
    - Communication tips, MME functionality, student context, safety
  - Building Trust + Mutuality Across Difference, led by DEIA consulting firm, The Darkest Horse
- Weekly communication & scheduling expectations
- Mentors are expected to stay on a project for the entire duration of the project (timeline stated in research description)
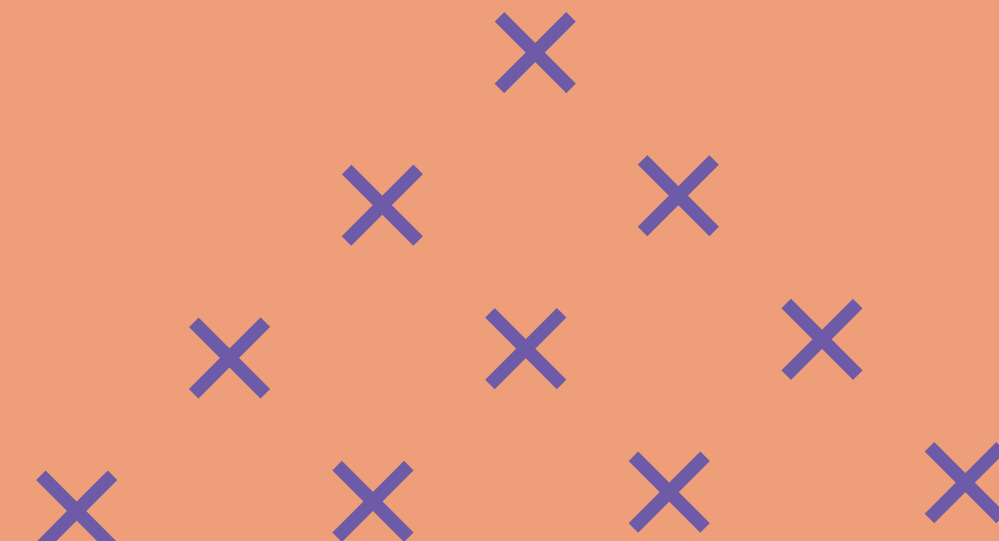
Note: CPS Volunteers

Teacher

Send ISTC the names of all mentors who have accepted student projects
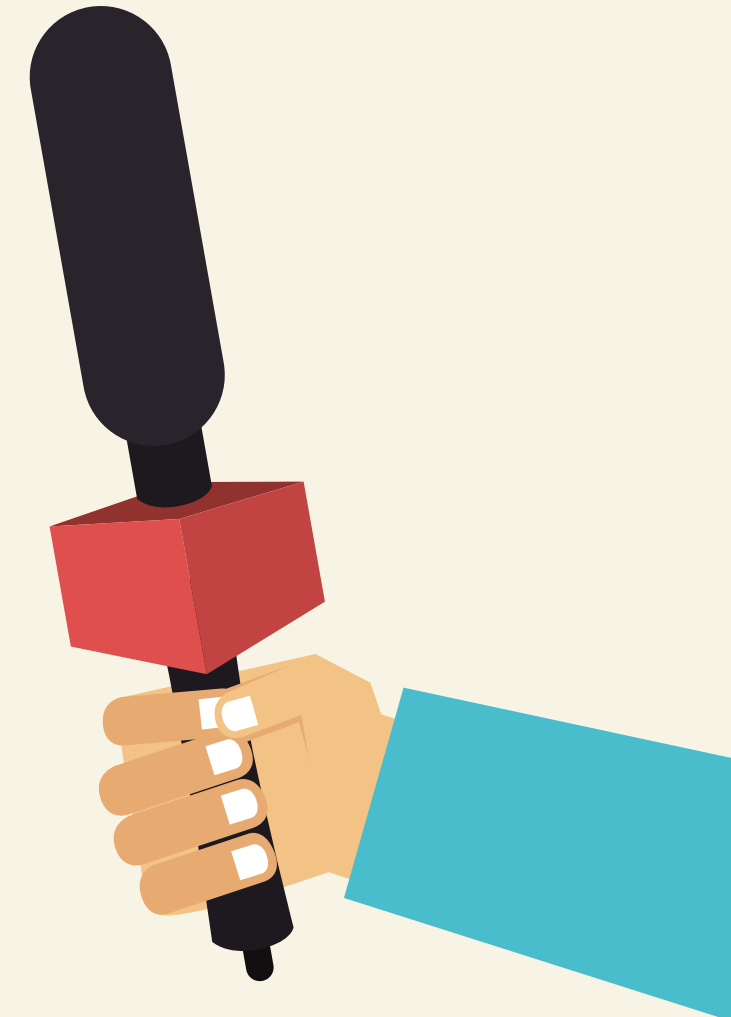
ISTC

Distribute the CPS volunteer form and collect ID from mentors and provide that information to the volunteer coordinator at each CPS school

ISTC
# Updates
& News!

BREAKING
NEWS

Student Research Showcase

For our end of year Student Research Showcase, we want to hear from you!

Which format will best support your students and allow them the opportunity to celebrate their hard work and accomplishments?

- "Gallery Style" : All projects live on an online gallery, and we will host a virtual launch
- "Science Fair Style": interested students are invited to attend and talk about their project with anyone who wants to learn more
- "Showcase Style": a smaller number of selected students will present their projects one by one to an audience
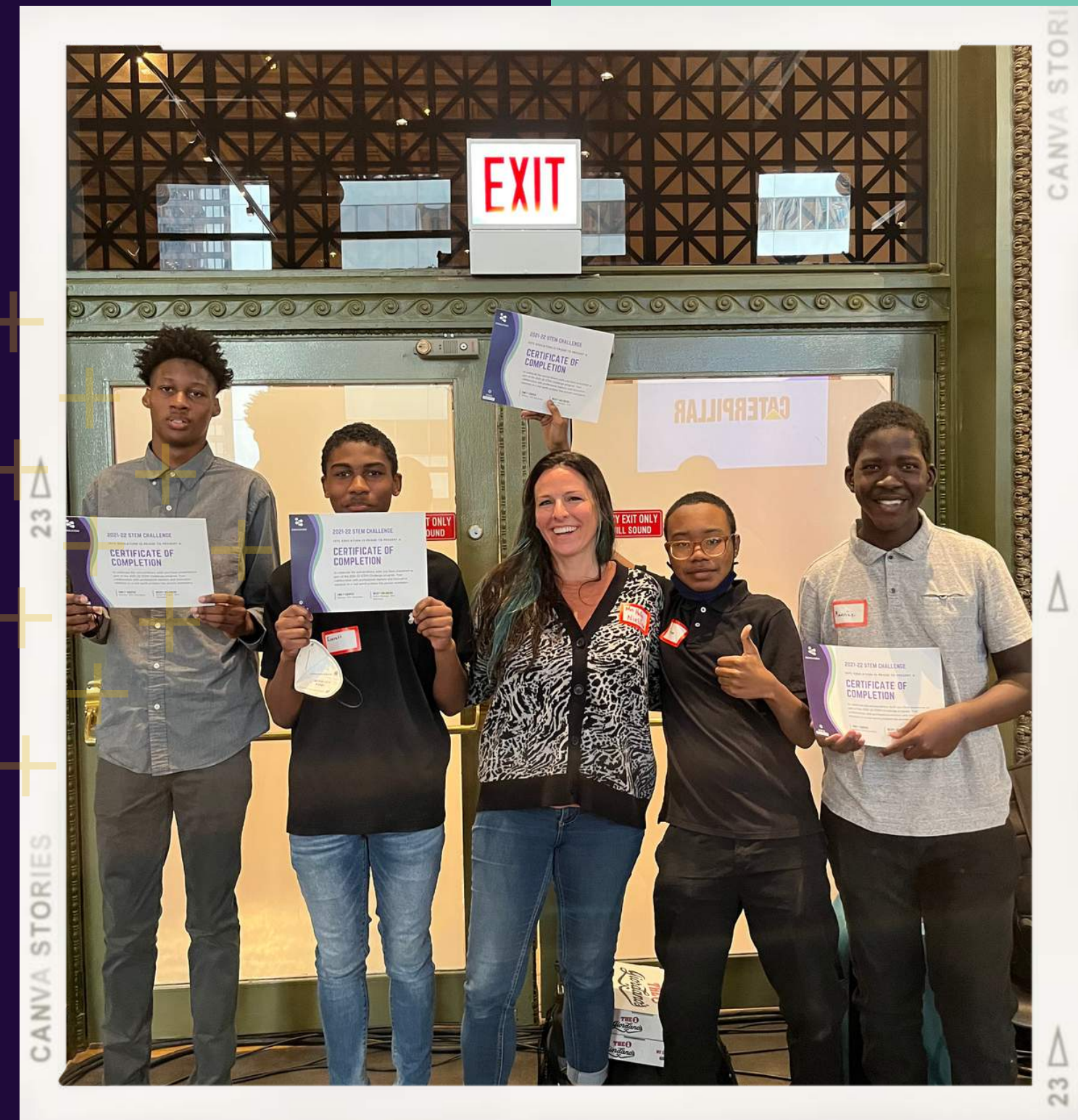
Introducing...
ISTC's Monthly PD Series

- access to monthly webinar on a variety of topics

- 3rd Thursday of each month

- opportunity to sign up and share with colleagues
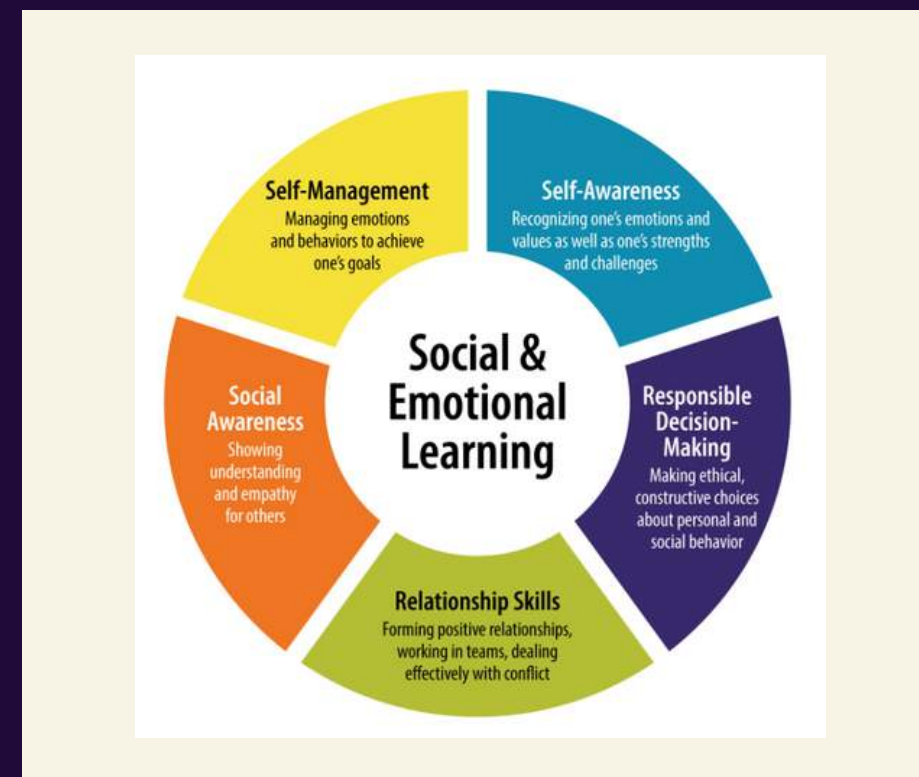
January 19, 2022

Trauma-informed Practices and Social & Emotional Learning

Led by: Julianna Grandinetti
ISTC Program Coordinator

Student Advisory Board

● ● ●

Goals:

- incorporate student voice at the ground level of programming
- support student agency and leadership
- create space for statewide student connection

Timeline & Responsibilities

- Student Application will open October 1st
- Monthly virtual meetings
- Roles: Chair, PR & Marketing, Fundraising & Donor Engagement, Event Planning, Student Experience (& vice for each role)

What do students gain from this experience?

- Skills/Experience: Networking, Marketing & Development, Organization, Public Speaking, Social Media

Student Advisory Board Cont.

The Good
- In site communication (ie. video calls)
- Easy to use UI

The Bad
-

Improvements to be Made
- Built in file sharing (I have to use google drive to work with files right now)
  - Something similar to the document tab that is there but does not need message to save there
- Built in calendar
  - Something like Canvas or Google Calendar
  - Would help with deadline communications, open hours, days off, etc.
- Resources for those who need to know how to communicate formally—student guide
- Mentor matching categories
- Send notification emails to encourage conversations (don't forget about … emails)

Example SAB Projects:

- Student Experience Brainstorm
- Donor Engagement Brainstorm
- Social Media feedback/plan
- Showcase Planning
- Graphic design
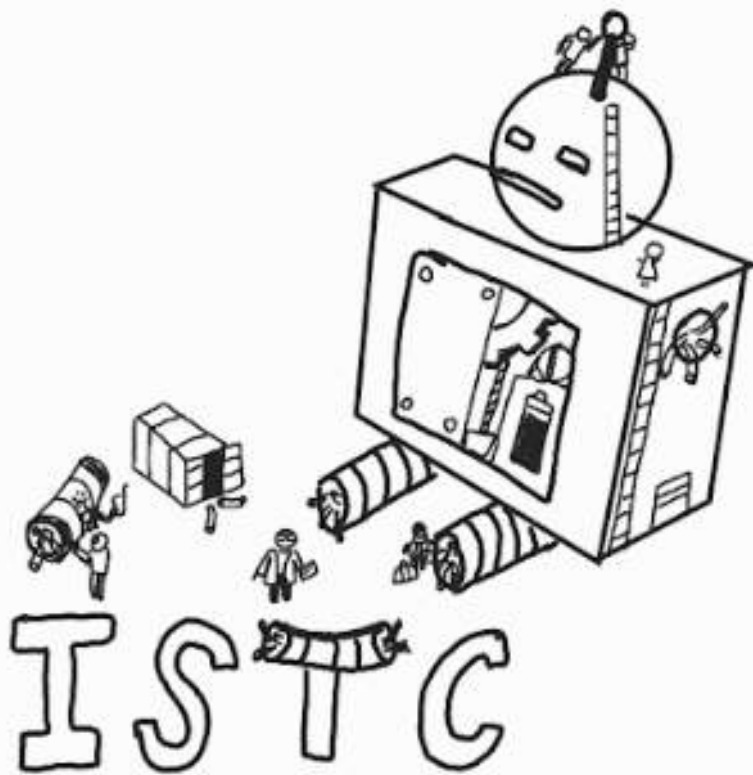
"This role is such an exciting opportunity to experience and you will not forget it. You get to meet a lot of new people with a multitude of interests and skills! It may seem like a lot of work, but trust yourself, you got this! When working with groups, one piece of advice I would say is to make sure you set a sturdy foundation and way of communicating with them. Our lives get busy but deadlines are still deadlines. Make sure to keep working with your committees and encouraging them to get things done. Have fun at meetings and coming up with ideas for ISTC. It's going to be a blast! Good luck and work hard!!"
-Madie Gonzalez, Advisory Board Chair 2021-22

Teacher Presentations!

Option A

Speaker: Sarah Baranoff
Topic: "Putting Students in the Driver's Seat"

Room C/D

Option B

Speaker: Alyssa Walser
Topic: "Setting Everyone Up for Success: MME Organization and Research Structure"

Room X

LUNCH TIME

Please take 10 minutes to grab some food and get comfortable before we transition into our Mentor Panel!
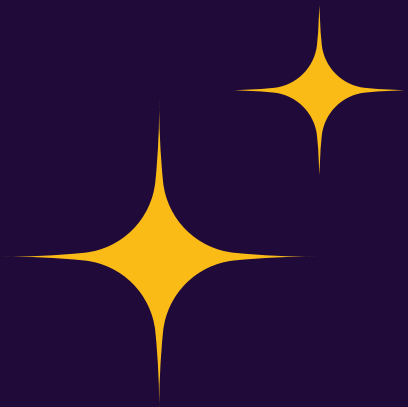
Teacher Presentations!

Option A

Speaker: Christopher Thomas
Topic: "More Than a Computer Program"
(AP)

Room X

Option B

Speaker: Julianna Grandinetti
Topic: "Research 101" (General)

Room C/D

Final Highlights

01 **Communication!**

We are here for you! We can't fix a problem we don't know about--please let us know if there's anything we can support with!

02 **Teacher Contract**

Please complete the teacher contract!

03 **PD Series**

Starting in November, you will have the opportunity to attend a monthly PD webinar on a specific theme, from Improv in Creative Problem Solving to integrating AI into curriculum. Please keep an eye on your emails for more info!

04 **Student Advisory**

We are so excited for the return of our MME student advisory board. [info about nominations/date]

Teacher Contract

● ● ●

Please fill out your teacher contract! The contract will collect information on the following:

- what is the timeline for your MME project?
- which days of the week will you be using MME in the classroom?
- preferred options for student research showcase
- ISTC Swag

bit.ly/MMEteachercontract

Thank You...

...and Welcome to MME!

We are so excited to start the year with you all!

bit.ly/MMEteachercontract