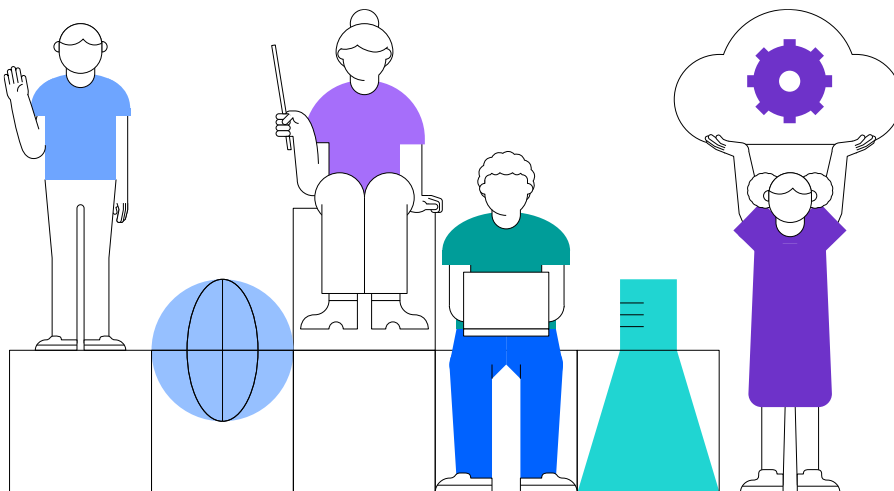


# P-TECH MENTORING PROGRAM GUIDE

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## Section 1:

### ABOUT P-TECH MENTORING

Mentoring is a vital part of the P-TECH model. P-TECH Mentors are a student's guide from classroom to college to career. Through training, encouragement, and advice, P-TECH Mentors help students understand their educational pathways and to see themselves in a meaningful career.

In short, they *connect the dots* between what students are learning in the classroom and how they will use those skills in a future career.

#### A. What Does a P-TECH Mentor do?

- i. They guide, encourage, and advise students on their career paths and aspirations.
- ii. They openly share their experience, knowledge, successes, and failures.
- iii. They create connections between the workplace learning curriculum, field experience, and real-world expectations.
- iv. They foster an environment where learning and experimentation are celebrated, and results are measured through knowledge gained instead of by grades earned.

#### B. What people are saying

Velma, an 11th grader at the Sarah E. Goode STEM Academy in Chicago, IL, and her mentor, Jill Sherman, an Art Director at IBM, forged a relationship over two years. The pair, who communicate both online and in-person at school events, have talked about everything from the challenges of high school and college to future careers and what it takes to be successful.

**Velma:** Jill is someone outside of my teachers and other adults in my life whom I can go to, and she will listen without being biased. Jill is a great at giving me advice. It's also nice to be able to tell Jill when I have an idea, and it's great to actually tell Jill what I want to be and then get guidance about it. Right now, Jill and I mostly talk about college and career topics. Jill is awesome!

**Jill:** What's nice is that Velma really utilizes me as a resource. I try to be a positive influence in her life by just listening. My goal is to give Velma unbiased feedback. I talk to her about her interests and listen to her ideas. Velma is smart and dedicated and can come up with the solutions on her own. When she wants advice, she asks.

*(Interview Source: P-TECH Case Studies)*



## Section 2:

### WHAT IS MENTORING?

A mentor imparts knowledge and shares experience on a particular situation, subject matter, role, or field, providing advice to those who want to learn and grow.

P-TECH Mentors guide, advise, and counsel students toward career goals. This does not mean that P-TECH Mentors need to provide highly technical counseling. Instead, they use their interpersonal skills to offer career guidance.

There is no requirement that a P-TECH mentor has to work in a technical field. In fact, it's important to have a variety of mentors from a variety of backgrounds take part in the program so that students can get exposure to lots of different careers. So, as mentors are being recruited, tapping into multiple areas such as IT, HR, marketing, and administration should be considered.

A mentor is someone who:

- i. Provides consistent support - Mentors are available on a predictable schedule based on the student's needs rather than the needs of the mentor.
- ii. Listens well - Mentors are good listeners, showing positive interest in the student's activities and interests.
- iii. Guides - Mentors act as realistic, supportive guides for career goals. This guidance includes practical ideas and supportive, corrective feedback.
- iv. Inspires - Mentors encourage students, keep them focused, and help them envision positive outcomes for their career goals.
- v. Acts as a role model - Mentors set an encouraging example, not just with their current success but also with stories of their goals, challenges, and failures.

A mentor *does not*:

- vi. Tutor - It's okay to answer occasional academic questions, but mentoring doesn't involve routinely correcting homework or drilling students on academic content.
- vii. Provide therapy - Mentors may offer guidance from time to time on common interpersonal issues, but career mentors are not mental health professionals and should not venture deeply into their students' psychology.
- viii. Give gifts or financial support - While giving a book or an inexpensive, "mentorship-related" item can be appropriate, mentors do not provide gifts frequently or of significant value.
- ix. Be disparaging - Mentors do not speak ill of their mentees, either to their face or behind their back.

For more tips on the qualities that make a good mentor, check out the [Be A P-TECH Mentor Badge](#) on SkillsBuild for Students.

### Section 3:

#### MENTOR ROLES

There are two different roles that mentors can take in a P-TECH mentoring program: *Career Mentors* and *Project Mentors*. Both can take place in-person or virtually depending on what's best for each school. The two different types of roles help make sure there is a role for everyone who wants to get involved, no matter their availability.

##### **Career Mentor**

This role looks a lot like a traditional mentor. They are there to offers students advice, guidance, and encouragement. They develop relationships with students to help them achieve their educational and career aspirations.

Some examples of what Career Mentoring can look like include:

*1:1 Mentoring:* Paired with students to share insights and provide guidance through formal and informal meetings at school or online.

*Small Group Mentoring:* Assigned to a group of students (4:1) for a semester or school year to assist them through project-based learning activities, facilitated by a Project Mentor

*Career Coach:* Paired with a P-TECH graduate/new hire, to periodically check in with them as they develop in their careers.

##### **Project Mentor**

A project mentor is someone with a skill or speciality who passes on their knowledge through a project-based learning activity.

A Project Mentor leads a class through an activity that showcases a technical skill (i.e. AI, cybersecurity) or a Workplace Learning Skill (i.e. presentation skills, collaboration). This activity can take place in a single session or across multiple sessions. What’s important is that the Project Mentor takes the time to talk to students about their career path and why these skills are relevant to their job.

A Project Mentor is supported by:

- i. The Industry Program Manager, who helps develop the lesson plan and coordinate the schedule.
- ii. Career Mentors, who work with a designated group of students, answering their questions and guiding them through the project.

For more on how this relationship could play out in practice, see *Section 6: The Program Structure*

## Section 4:

### THE ROLE OF THE MENTEE

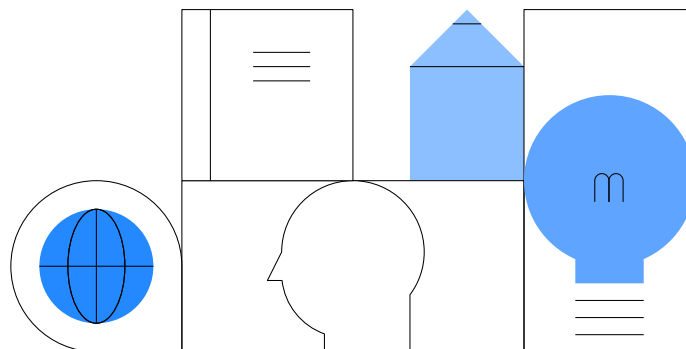
Mentoring has a host of benefits for students. We know that students with mentors are less likely to skip school, are more engaged, and often have better outcomes. We also need to remember that while we know the benefits of mentoring, a new mentee might not.

That’s why it’s important to communicate to P-TECH students what the expectations are of them. The mentoring relationship is a partnership, and mentees need to take an active role.

When entering a mentoring relationship, mentees should:

- i. Show an eagerness to learn
- ii. Have a positive attitude towards the process
- iii. Be prepared to create goals for themselves
- iv. Be open to feedback and constructive criticism
- v. Be considerate of the mentor’s time and skills

Setting the stage for students at the beginning of this process will be essential to the success of the mentoring program.



## Section 5:

### THE INDUSTRY PROGRAM MANAGER ROLE

The Industry Program Manager is at the center of the mentoring program, working to ensure that the program is running smoothly. As the liaison with the P-TECH school, it is important that they are working closely with school administrators to make sure protocols in place are being followed. Broadly, responsibilities of the Industry Program Manager include:

- i. Planning a Schedule for the School Year – Working with administration, they draw up a schedule of events that coordinates with the school calendar. This can help provide a sense of how many mentors will be needed and when.
- ii. Recruitment – Using in-person events, social media, and internal communications channels, identify and locate a diverse group of mentors that reflect the population of the school and represent a variety of careers that students might be interested in.
- iii. Training and Background Checks – Responsible for seeing that mentors take any relevant training and get their background check in accordance with local laws and school regulations.
- iv. Matching – Match up mentors and mentees based on background, interest areas and personality (often coordinated with school administrators or other P-TECH staff).
- v. Support & Issues Management – Provide advice and guidance to the mentors when they have questions about their relationship with a mentee. This includes bringing in guidance counselors or school administration when warranted to solve issues or questions that might arise.
- vi. Documentation – Keep track of relevant information related to the mentors, including contact information, their mentor relationships (including when relationships close and why), number of hours served, and evaluation.
- vii. Celebrating – Saying “Thank You” for the mentors’ hard work!

## Section 6:

### THE PROGRAM STRUCTURE

P-TECH programs start in Grade 9 and continue for four to six years. Students will experience mentoring throughout the program; however, the mentoring can change from year-to-year. For instance, a student in their first year of the program may not feel comfortable sharing their career aspirations with an adult while older students might have some specific questions in mind.

To ensure program success for both mentor and mentee, it is important to build a mentoring program that is based on a few basic principles:

- i. Safety – Students need to know they are safe to share their thoughts and feelings with an adult who is not a family member or friend.
- ii. Trust – Students need to know they are receiving good and reliable advice and guidance from their mentors.
- iii. Continuous Learning – Students should always be building on the knowledge they have gained and see the value of continuously improving their skills.

A suggested program structure for Industry Program Managers is provided below (Figure 1). This structure is built on best practices gathered from P-TECH Programs around the world, and are designed to create and sustain a program that is successful for mentors and mentees alike. The sections include:

- i. Industry Program Manager Focus – Identifies what the Industry Program Manager should keep in mind as a guide for what they hope students will learn in the program during a specific year.
- ii. Activity Mapping – Provides direction for what types of activities students should be taking part in throughout the year.
- iii. Mentoring Style – Small groups and 1:1 mentoring
- iv. Volunteer Management – Number of Career Mentors and Project Mentors needed per year of the program

Industry Program Managers should feel free to make adjustments to the guide so that the program best meets the needs for their individual school and students.

Figure 1: Suggested Program Structure

	Year 1	Year 2	Year 3	Year 4	Years 5-6
<b>Industry Program Manager Focus</b>	What is P-TECH/ 7 WPL Skills	How to be a Mentee	Preparation for Internships	Putting Your Skills to Work	Transition to the Workforce
<b>Activity Mapping</b>	<i>Explore:</i> Focused on sparking curiosity and inquiry, the WPL skills are taught through hands-on experience where students are encouraged to attempt, play, and engage.	<i>Build:</i> Building on the students' curiosity, this phase shifts focus from inquiry to problem-solving to develop the fundamentals of the WPL skills.	<i>Practice:</i> This stage takes the foundational skills the students have learned and allows them to practice those skills in projects and be able to express them on a resume.	<i>Apply:</i> Focusing more on independent application, students are encouraged to put the WPL skills to work and speak to how they can demonstrate those skills.	<i>Keep Going:</i> As students transition to the workforce, they are encouraged to renew their skills, learn others, and develop a passion for lifelong learning.
<b>Mentoring Style</b>	Project-based with small-group mentoring	Project-based with small-group mentoring	Some project-based; transition to 1:1 mentoring	1:1 mentoring	1:1 mentoring
<b>Volunteer Management (assuming class size of 25)</b>	1-2 Project Mentors + 5 Career Mentors	1-2 Project Mentors + 5 Career Mentors <i>(Note: Students ready for 1:1 mentoring can do so)</i>	1 Project Mentor + 3 Career Mentors for small groups; 15 Career Mentors for 1:1 mentoring	25 Career Mentors for 1:1 mentoring	25 Career Mentors from years prior + additional, as needed



## How It Works in Practice (Example)

### PLANNING: P-TECH INDUSTRY PROGRAM MANAGER + TEACHER

Jill is the Industry Program Manager at a P-TECH school in Chicago. Her Grade 10 Computer Science Teacher wants to do a unit on Cybersecurity. He also wants to give the students an introduction to presentation skills.

Jill sees there is an IBM Cybersecurity Activity kit available which will engage students for two one-hour sessions. She also has an activity kit on presentation skills that suits the teacher's requirements. She works with the teacher to schedule 6 sessions throughout the year: 2 cybersecurity sessions in October and November, two presentation skills sessions in January and February, a debrief in March, and a look-ahead meeting in April.

#### Recruitment:

Jill needs 1 Project Mentor with design thinking experience, 1 Project Mentor who specializes in design thinking, 1 Project Mentor who specializes in presentations, and 5 Career Mentors for the class of 25 students. She recruits:

- i. John, a Design Thinking Facilitator, located in San Jose, CA
- ii. Megan, a sales rep at a local Chicago office who is involved in Toastmasters and is great at public speaking
- iii. Chelsea, Chris, Mark, Leslie, and Kyle - five volunteers from Chicago who have signed up to be Career Mentors

*NOTE: In the following session descriptions, Chelsea's mentoring engagement is provided as an example.*

#### Session 1 & 2: Cybersecurity Design Thinking

Prior to the event, Jill organizes a meeting with John and the five Career Mentors to go over the plans for the training.

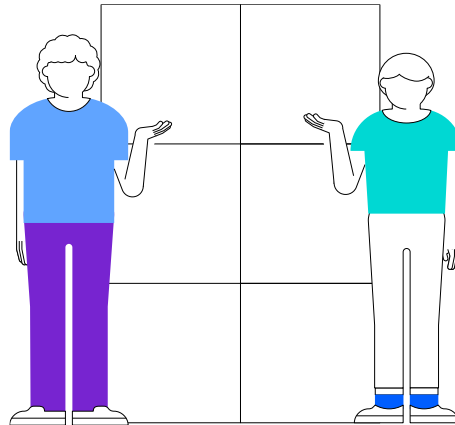
At sessions 1&2, John uses WebEx to virtually present to the class about cybersecurity and to introduce a design thinking activity. Jill and the teacher break the students up into five groups and assign each Career Mentor to a group. Chelsea's group engages in a design thinking session. The students get to know her over the course of both sessions as someone they can trust and ask questions of. At the end of session 2, John leaves some time open to answer student questions about his career path.

#### Session 3: Presentation Skills

Megan comes to the Computer Science classroom and delivers a presentation on how to prepare and deliver an engaging presentation. She talks about her career and why presentation skills are important

in her job. She then challenges the students to work in their groups to create a presentation based on an idea they identified during their cybersecurity design thinking session.

Chelsea works with her group to help them connect the dots between what they designed and how to present it in a compelling way.



#### Session 4: Presentation Day!

Chelsea spends the first half of the session working with her group to refine their presentation. Afterwards, everyone delivers their presentation and Megan gives feedback.

**\*\*Note:** Megan is called into an important meeting with a client and cancels. Luckily, Jill has been involved at every step, and leads the class in her place. The Career Mentors continue working with their groups.

#### Session 5: Connecting the Dots

Prior to this session, Jill meets with the Career Mentors to walk them through how the session will work and what kinds of debriefing questions they should be asking. Jill also provides information on careers in cybersecurity, and examples of how presentation skills are used in those jobs.

Chelsea and her group have a discussion on what they learned and why it is important. Chelsea talks a bit about her career pathway, asks what the students liked and didn't like about the sessions, and offers advice on how they might turn what they did like into a career.

**\*\*Note:** Icy roads mean some of the mentors can't make it to the school. Jill arranges with the teacher to hold this class virtually (via Google Classrooms/Zoom/WebEx). Students are assigned to online breakout rooms and Chelsea meets with her group while the teacher virtually supervises from his classroom.

## Session 6: Preparation for 1:1 Mentoring

Jill leads this session at the school. She gives a presentation about what 1:1 mentoring is and the responsibilities of mentees in that type of mentoring relationship. In this session, she explains starting the next school year, all students will get a mentor who they can communicate with more regularly.

Back in Chelsea's group, Chelsea talks to her students about what benefits she gained from working with them over the past year. She further explains how 1:1 mentoring is different than what they have experienced this year and encourages students to start thinking about what conversations they might like to have with future mentors.

Together they work on an exercise about goal setting and how their interests should match with a mentor's.

### Final thoughts on Program Structure:

This is, of course, just an example of how a P-TECH school's mentoring program might work. However, the structure was designed to instill a sense of safety and trust between the mentors and the mentees and allow students the opportunity to continuously work on their skills.

For the Industry Program Manager, this structure allows some flexibility when it comes to volunteer management and helps solve some issues that may pop up along the way.

## Section 7:

### RECRUITING MENTORS

A successful mentoring program relies on a strong supply of dedicated volunteers. The Industry Program Manager will be able to recruit mentors from the P-TECH program's industry partners. Mentors should be recruited who represent different areas of the company and represent a range of ethnically diverse and career backgrounds.

Before getting started, here are a few things to consider:

- i. *The number of mentors needed:* Rather than saying, "I need lots of mentors!" it's much easier to say, "I need 25 people to take part in this opportunity!" Then, as spots get filled, a sense of momentum can be created by announcing, "Only 5 spots left!"
- ii. *A description of what mentors will be doing:* Potential volunteers may inquire about what they are actually signing up for! Providing a few lines that detail what mentors will be doing will help the "ask".
- iii. *Any specific skills or backgrounds desired:* Is the school located in a largely Hispanic neighborhood? Is there a need for more female mentors? Is there a popular robotics club? Knowing things like this can help target recruitment efforts to employee groups or business units to help find mentors who are interested in volunteering at the P-TECH school.

- iv. *Identifying motivations* – Why do people in your area want to mentor? By making an emotional connection, the chances are greater to reach and recruit new volunteers.

When ready to start recruiting, there are a few different tactics to try:

- i. Set up a booth at a workplace social event (like a Summer BBQ)
- ii. Utilize social media channels and internal communication channels (Slack and internal newsletters are a great way to get the word out)
- iii. Host a Lunch and Learn – Give potential mentors a taste of what they could be doing
- iv. Reach out to employee groups or business units – Ask to give a presentation to a specific group of employees
- v. Word of mouth – Current mentors are some of the best salespeople! Ask them to tell their colleagues to get involved.

For more tips and strategies on how to recruit mentors, check out [this guide](#) from the Mentoring Resource Center.

## Section 8:

### MATCHING MENTORS TO MENTEES

Matching of mentors to mentees is both ‘art and science’, like many aspects of the educational process. It would be wise to seek advice from teachers and guidance counselors on possible mentor-mentee matches.

Surveys can be created by the school and Industry Program Manager for administering to students and mentor volunteers that may assist in the matching process. Student surveys could ask questions related to academic strengths and challenges, career aspirations, and extracurricular interests. Mentor surveys could ask questions related to career area, educational background, length of time on the job, prior experience working with special student populations, etc.

Some things to keep in mind when matching a mentor and mentee are:

- i. Preferences of the mentor and mentee (and sometimes the parent/guardian)
- ii. Gender and ethnicity
- iii. Common interests
- iv. Similar personalities

## Section 9:

### SECURITY AND TRAINING

#### *Background Checks*

Most school districts require mentor candidates to undergo a comprehensive background check before they can participate in a mentoring program. Security checks take time, so it is important to plan for this aspect of the program when crafting mentoring program timelines.

The Industry Program Manager should work with the school to identify the local requirements and communicate them to prospective mentors.

### *Safety Protocols*

Because mentors will be working with minors, there are a few rules that should be communicated to mentors:

- i. In-person meetings should only take place at the school and on the schedule set by the Industry Program Manager/teachers.
- ii. Mentors and mentees should only be communicating electronically through approved platforms which are monitored by the school or the Industry Program Manager.
- iii. Mentors and mentees should never exchange personal contact information. This includes phone numbers, addresses, email addresses, and social media handles.

### *Training*

All mentors are required to go through training before starting as a mentor. However, the exact structure of the training should be a discussion with each school. Here are a few examples of trainings:

- i. [Be A P-TECH Mentor](#) Training on Open P-TECH – This mentor training was specifically designed for P-TECH Mentors and is recommended for all volunteer mentors. It offers baseline knowledge of how to be a mentor. Once mentors have completed the online course, AND a certain number of hours with a mentee, they will be eligible to earn a badge.
- ii. Diversity & Inclusion Training – Currently, D&I training is being developed on SkillsBuild for Students. However, schools may wish to have a conversation with their school leadership about the kind of training that would be most suitable to meet the needs of the school. School leadership may even suggest local area training opportunities which would be more appropriate.
- iii. Virtual Mentoring – If a school is using a virtual communication platform, mentors may need to be trained on its use.

## Section 10:

### DEALING WITH ISSUES

From time to time, issues may come up in a mentoring relationship. For instance, a mentee might reveal something deeply troubling them. Sometimes the match just doesn't click. Perhaps either the mentor or the mentee might be perceived as lacking in commitment.

Whatever the issues, the most important thing for an Industry Program Manager to get across to mentors is to **not try to deal with the issue alone**.

Teachers, principals, and guidance counsellors are trained to work with students and help them through issues. They know their school and their students better than anyone. So, if a mentor gets a sense that something is wrong, the best thing to do is bring the issue forward so that it can be dealt with properly. Remember – a mentor's job is to give guidance and advice - not to provide therapy.

Industry Program Managers should recognize and communicate to mentors and mentees:

- i. Sometimes mentoring relationships will not succeed. That's okay.
- ii. Mentees may need to change their mentors if they just don't click, or if their circumstances change and they need someone with a different skillset to help them achieve their goals. This is alright, too, and doesn't mean either party has failed.
- iii. Sometimes, if a problem is identified early, recognized, and communicated, it can be resolved.

## Section 11:

### MENTOR PROGRAM EVALUATION

The Industry Program Manager should consider administering surveys to students and mentors, as well school staff, at the end of each school year. Focus groups can also be conducted in order to gather more information about the program.

Surveys and focus groups provide a chance for mentors and mentees to give feedback on the program in structured ways. The results can help the partnerships make changes, if needed.

The data collected from these surveys and focus groups can also be used when writing grants or when sharing information about the school's mentoring program to potential industry partners and future mentors.

## Section 12:

### CLOSING THE MENTORING RELATIONSHIP

Closing mentoring relationships is an important part of the mentoring process, and it is the responsibility of the Industry Program Manager to keep information related to this process. Closure is defined as the ending of a formal match relationship, regardless of the circumstances of the match ending or whether the parties intend to have future informal contact beyond the match duration.

There are typically four types of closures:

- i. Planned closure – This is when there is a set end date for the match (i.e. when the student graduates).

- ii. Extenuating Circumstances – This is more sudden in nature and beyond the control of the program (i.e. the mentee leaves the P-TECH school or the mentor gets a new job that requires they drop out of the program).
- iii. Difficult – This is when a relationship ends because of a behavioral issue (i.e. lack of compatibility, or someone just stops showing up)
- iv. Breach of Policy – This is a more serious occurrence that may result in a mentor or a mentee being removed from the program.

No matter the circumstance, the Industry program Manager should keep a record of all relationship closures and the reason behind the occurrence.

In the case of a planned closure (such as when the student graduates), mentors and mentees may wish to continue their mentoring relationship. In such a case, it is important that both mentor and mentee (and sometimes a parent/guardian if the student is still a minor) must give consent to share personal information. The Industry Program Manager should inform both parties **in writing** that the formal relationship has closed, and any further contact will be happening outside the scope and responsibility of the P-TECH program.

## Section 13:

### CELEBRATING MENTORS

It is important to remember that P-TECH mentors are volunteering their time to be a part of this program. They are owed a huge debt of gratitude, so frequently saying “Thank You” lets them know they are appreciated.

Some tips for mentor appreciation include:

- i. Provide a certificate and/or encourage mentors to show off their *Be a P-TECH Mentor* badge
- ii. Call, write a handwritten note, or send an email expressing thanks for their participation
- iii. Ask the school principal, the industry partner’s executive or CEO to send a letter of thanks
- iv. Organize an end-of-year celebration

## Section 14:

### SUGGESTED TIMELINES

#### Before the School Year Starts

- i. Three Months Before School Starts – Put together a draft plan with site teachers
- ii. Two Months Before School Starts – Start recruitment efforts

- iii. One Month Before School Starts – Host training and make sure the mentors are getting their background checks underway

## **When the School Year Starts**

### *First Month of School*

- i. Work with School Leadership to match mentors and mentees
- ii. Organize a kickoff event where everyone is invited. This is a great teambuilding exercise and a chance for everyone to introduce themselves

### *Mid-Year*

- i. Check in with mentors, mentees and staff to see how things are a going, and make adjustments for second half of the year
- ii. Arrange a mid-year event at the school to keep the momentum going

### *End of Year*

- i. Organize a celebration event
- ii. Send out evaluations and close any mentoring relationships for students who might be graduating

### *Monthly*

- i. Schedule meetings with teachers and administration to review mentor progress and participation
- ii. Organize optional work-based learning events at the school for mentors to attend
- iii. Implement participation incentives for students

### *Weekly*

- i. Weekly emails to mentors, students, and teachers with participation reports
- ii. Responses to mentor questions/requests
- iii. If applicable, monitor online site for uploaded attachments, user requests and participation reports