



Science | Technology | Engineering | Math



Mentoring Guidebook

MENTOR NAME:

MENTEE NAME:

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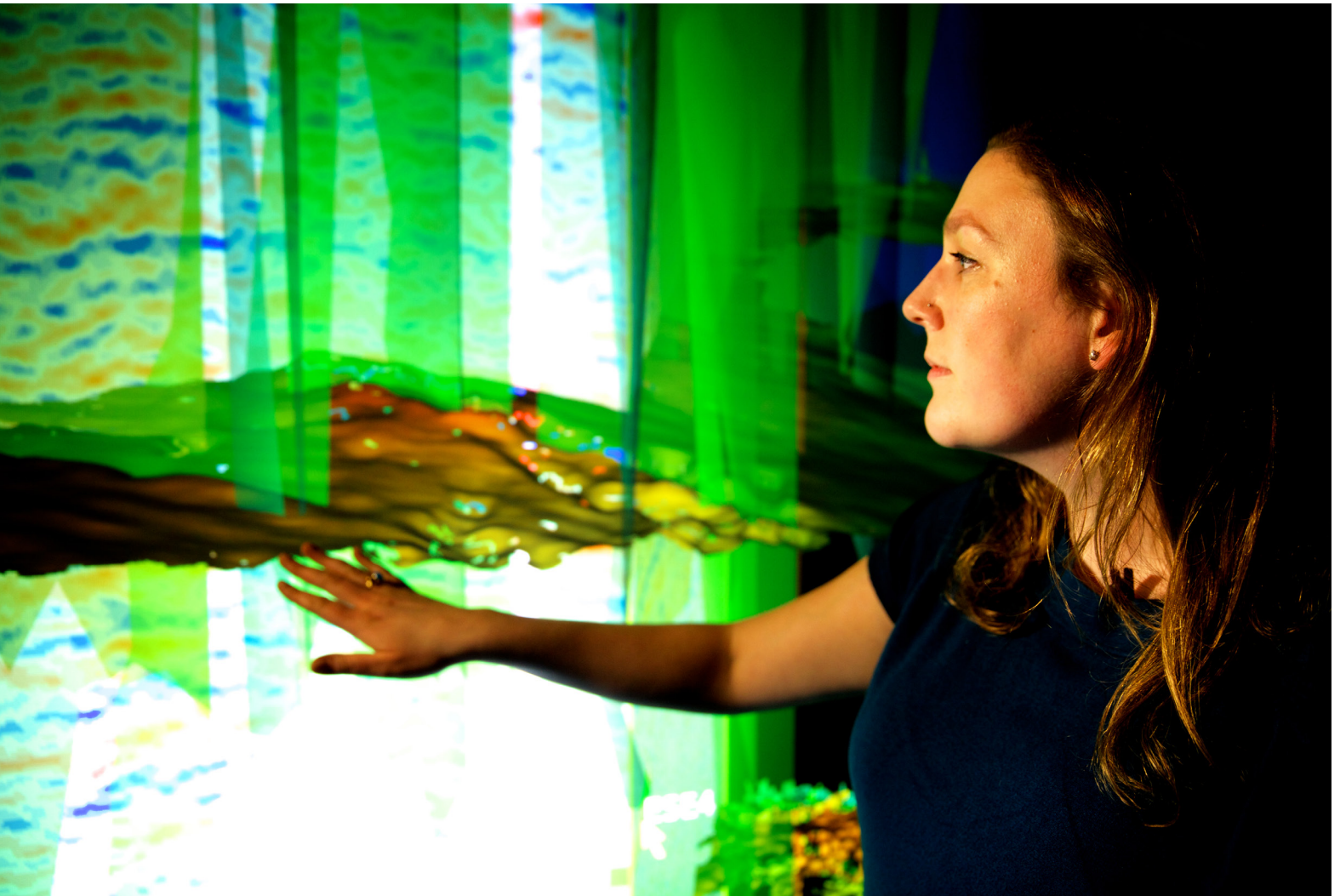
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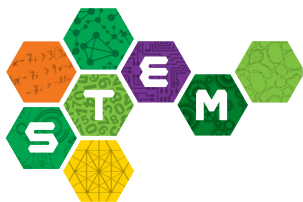
Investing in STEM Education

The energy industry is changing faster than ever. As global demand for energy continues to rise, the fuels mix is shifting toward lower-carbon sources. Meeting the world's energy need requires a spirit of invention and purpose; BP's scientists and engineers will help drive this transition — both today and in the future.

Just as the energy sector needs more innovators, the United States faces a chronic shortage of graduates with the right skills in science, technology, engineering and math (STEM). As this gap widens, BP will compete with many industries to attract and keep top talent.

Therefore, it is imperative that BP remains committed to improving pathways to STEM education and careers, especially for girls and other underrepresented minorities. Together, women and minorities make up more than half of the nation's population, yet they are much less likely to earn STEM degrees or become STEM professionals. Closing these talent gaps can pay big dividends.





How to get started

To begin your mentor relationship, it is recommended to schedule a one-on-one consultation session. At this first session you will determine a regular time to meet each month, bi-month or however often works best for the two of you. You might also want to begin by sharing your expertise – everything that's not written down; that you have had to learn along your own educational and career path.

How to use this mentor guide

Be sure to have one guide for you and give one guide to your mentee. It will provide weekly prompts to drive conversation and promote sharing of ideas and gives you a space to track pertinent ideas and notes.

- Guided weekly conversation ideas
- Write feedback from discussions and thoughts in this guide (and read) prior to meeting each week
- Track past/current discussions, ideas and follow up
- Track your hours in the back of the guide
- Submit your hours on the BP STEM Ambassadors online portal
- Submit your hours to the BP Foundation for matching contribution. Learn more at <https://myhr.bp.com/bpexperience/working-at-bp/employee-matching-fund/global>

Understanding each other

When connecting with others, it is important to understand the context in which they are living. The more we understand what others are experiencing, thinking about and aiming to achieve, the more likely we are to build a relationship with them. When we meet others where they are today, we can provide support that helps move them closer to realizing their full potential, achieving their goals and strengthening their confidence.

Building a relationship

To begin your mentor relationship, it is recommended to schedule a one-on-one consultation session. At this first session you will determine a regular time to meet each month, bi-month or however often works best for the two of you. You might also want to begin by sharing your expertise – everything that's not written down; that you have had to learn along your own educational and career path.

As you begin to work with others in a mentoring session, it can feel awkward and uncomfortable for both you and them. Here are some key tips to consider when building a relationship during a career mentoring session.

1. Focus on collaborating, not directing – As mentors, we do not have all the answers. Our primary role is to ask great questions and actively listen to get to know others, to understand their goals, and to help them discover and leverage their strengths. Don't focus on fixing them; be a champion for them.
2. Share your experiences and perspectives. – Instead of telling others what to do, share with them your life experiences and alternative perspectives to consider. By brainstorming options with others, we empower them to reflect on the pros and cons of each option and to make decisions for themselves. Be fully present in the discussion and open to answering their questions.
3. Challenge growth – Some people focus on reasons why they are not good at something and why they don't feel as though they can achieve a goal or belong at work or school. Challenge their growth by having them reflect on past successes and consider using past success strategies to overcome current challenges. This helps others develop a growth mindset and strengthen their resiliency.
4. Be transparent about failures and successes – Discuss with others some of your successes, what it took to achieve them and what you learned in the process. Also, reflect with others on your failures, modeling for them how you leveraged failures as learning opportunities and how they influence your thoughts and actions today.

Developmental relationships framework

To help youth feel supported and cared for, consider the following 5 actions when working together.



- Express Care

- Show that you like me and want the best for me
 - * Be dependable- be someone I can trust
 - * Listen- really pay attention when we are together
 - * Believe in me- make me feel known and valued
 - * Be warm- show me you enjoy being with me
 - * Encourage- praise me for my efforts and achievements

- Challenge Growth

- Insist that I try to continuously improve
 - * Expect my best- expect me to live up to my potential
 - * Stretch- push me to go further
 - * Hold me accountable- insist I take responsibility for my actions
 - * Reflect on failures- help me learn from mistakes and setbacks

- Share Power

- Hear my voice and let me share in making decisions
 - * Respect me- take me seriously and treat me fairly
 - * Include me- involve me in decisions that affect me
 - * collaborate- work with me to solve problems and reach goals
 - * let me lead- create opportunities for me to take action and lead

- Provide Support

- Help me complete tasks and achieve goals
 - * Navigate- guide me through hard situations and systems
 - * Empower- build my confidence to take charge of my life
 - * Advocate- stand up for me when I need it
 - * Set boundaries- put in place limits that keep me on track

- Expand Possibilities

- Expand my horizons and connect me to opportunities
 - * Inspire- inspire me to see possibilities for my future
 - * Broaden horizons- expose me to new ideas, experiences, and places
 - * Connect- introduce me to people who can help me grow

Giving effective feedback

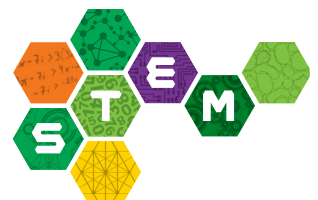
Throughout your time working with youth, focus on asking great questions and giving effective feedback. This helps cultivate confidence along with critical and creative thinking.

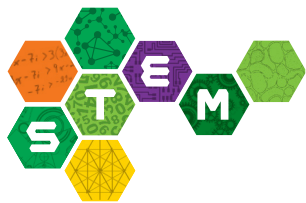
- Notice

- Giving effective feedback starts with being a good observer.
- Pay attention to what youth are saying and doing while you work together.
- Look for the actions that positively contribute to the experience (i.e. practicing patience, weighing options, motivating others, applying past experiences to the current activity).
- Identify the actions that are negatively impacting the experience as well.

- Name and nurture

- When you notice positive contributions, name them out loud and celebrate how they are impacting the experience.
 - "I noticed how you made sure everyone had a role in the activity and wanted to celebrate you for your demonstration of great leadership and collaboration skills."
- Encourage youth to continue practicing their positive contributions and reinforce with additional feedback.
- If possible, address actions that are negatively impacting the experience one-on-one. Use questions vs. judgements to encourage self-reflection and a change in behavior.
 - "Have you ever received unfair criticism from others? How does that make you feel? You wouldn't want to make others feel like that, would you?"





Week 1

or hour 1

Getting to know you

This meeting is to help you both get acquainted and find ways to work well together. Take time when first connecting to get to know each other. These conversation starters can equip you with great insights to leverage during your work together.

Recommendations to ask each other the following questions, and any others that come to mind.

Both mentor and mentee:

- What is your favorite movie or book?
- Tell me about something that you are very proud of.
- Share a learning moment in life or a challenge that you overcame.
- If you could have any superpower, which one would you pick?
- What is your favorite thing about yourself?
- What are you grateful for?
- What kind of person do you want to be?
- What stresses you out?
- What qualities make a great friend?

Mentee:

- List a few areas in which you would like to grow in order to be successful, both personally and with regards to education, where you feel your mentor could specifically coach and advise you. This becomes the goal of your mentor relationship.
- What grade are you in and what classes are you taking?
- Do you participate in any outside activities? Interests?
- Do you plan on pursuing a college degree?

Mentor:

- Share your current role and what steps you took to get there.
- Are you involved in any outside volunteering?
- What are your interests?
- Share recommendations for educational pathway for your mentee.

Action item:

Mentee

- List some areas in which you excel (strengths-based leadership) and bring to your next meeting.

“Nothing is impossible, the world itself says I’m possible!”

- Audrey Hepburn

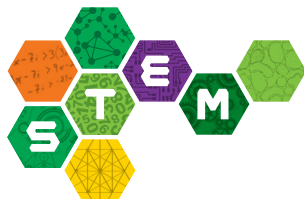
Notes:

Action items:

- Schedule your next three meetings
- Clarify expectations for your relationship and the best way to communicate with each other

“One in three young people will reach adulthood without a mentor.”

- Diane Questor, Mentor



Week 2

or hour 2

Cultivating a growth mindset

When working with youth, pay attention to what they say and what they do. You will notice when they are demonstrating a fixed vs growth mindset. Leverage the opportunity to cultivate a growth mindset with them by reframing what they say and boosting their confidence in the actions that they take.

Find a complete growth mindset toolkit at: <https://www.mindsetkit.org/growth-mindset-mentors>. Developed in collaboration with MENTOR, this toolkit can help mentors understand growth mindset and how to apply growth mindset strategies to many of the challenges that youth and adults face in life.


Summary of Dweck's *Mindset*

Fixed vs Growth

<u>ability is static</u>		<u>ability is developed</u>
avoids challenges		embraces challenges
gives up easily		persists in obstacles
sees effort as fruitless		sees effort as necessary
ignores useful criticism		learns from criticism
threatened by others		inspired by others' success

10 Growth Mindset Statements

FIXED MINDSET



INSTEAD OF:


I'm not good at this.
I'm awesome at this.
I give up.
This is too hard.
I can't make this any better.
I just can't do Math.
I made a mistake.
She's so smart, I will never be that smart.
It's good enough.
Plan "A" didn't work.

What can I say to myself?

TRY THINKING:

- 1 What am I missing?
- 2 I'm on the right track.
- 3 I'll use some of the strategies we've learned.
- 4 This may take some time and effort.
- 5 I can always improve so I'll keep trying.
- 6 I'm going to train my brain in Math.
- 7 Mistakes help me to learn better.
- 8 I'm going to figure out how she does it.
- 9 Is it really my best work?
- 10 Good thing the alphabet has 25 more letters!

GROWTH MINDSET



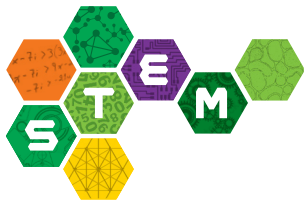
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@sylviaaduckworth

The strategy box

When youth experience challenges, leverage the strategy box to help them reflect on past successes and the tactics they used to achieve the success. By deploying some of the same tactics to their current challenge, they will likely boost their confidence and successfully navigate to a solution.

<p>Something I learned or succeeded at:</p> <p>Strategies I used:</p> <ul style="list-style-type: none"> • • • 	<p>Something I learned or succeeded at:</p> <p>Strategies I used:</p> <ul style="list-style-type: none"> • • •
<p>Something I learned or succeeded at:</p> <p>Strategies I used:</p> <ul style="list-style-type: none"> • • • 	<p>My new learning challenge:</p> <p>Strategies to borrow from other boxes:</p> <ul style="list-style-type: none"> • • •
<p>Something I learned or succeeded at: Can play the piano</p> <p>Strategies I used:</p> <ul style="list-style-type: none"> • Take lessons every week • Bought 3 books on reading music • Remind myself to practice by giving myself rewards after 30 minutes of practice 	<p>Something I learned or succeeded at: Learn how to cook</p> <p>Strategies I used:</p> <ul style="list-style-type: none"> • Mom teaches me • Tried many bad recipes • Learned from videos
<p>Something I learned or succeeded at: Have a good career</p> <p>Strategies I used:</p> <ul style="list-style-type: none"> • Research nursing careers • Talk to friends older sister who is studying medicine • Meet with Sheila, mentor from medical center 	<p>Something I learned or succeeded at: Not organized financially</p> <p>Strategies I used:</p> <ul style="list-style-type: none"> • Buy 3 books on personal finance (piano) • Take 2 classes on money management • Set a goal around saving (career) • Set a reward if I make my goal (piano)



Week 3

or hour 3

Finding your strengths and setting goals

Mentee:

- Tell me about a time when you felt that you were using your greatest strengths (on a project or a situation). Use the list you prepared from last week's action items.
- There are some areas in which we could each use some improvement. What are some challenges you've faced in the past?

Mentor:

Describe SMART goals – Specific, Measurable, Attainable, Relevant, Time-bound

- Talk about skills associated with science, technology, engineering and math (STEM) and how they relate to the mentee's vision for herself.
- Discuss other important skills like global competency, ability to work across cultures, authenticity and diversity
- Create two to five goals for your work together that involve learning and lead to defined outcomes. Examples:
 - Set a time this week to spend a day shadowing a woman in an area STEM that interests me
 - Apply for three STEM-related internships next week

“For what is done or learned by one class of women becomes, by virtue of their common womanhood, the property of all women.”

- Elizabeth Blackwell



SMART goals

Specific • Measurable • Attainable • Relevant • Time-bound

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How to measure the success of your SMART goals:

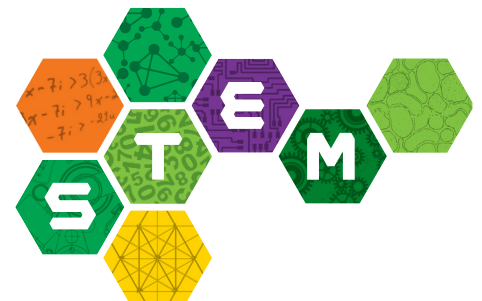
Each week, send your mentor a two-paragraph email with:

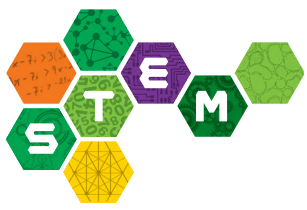
- Where you stand against your SMART goals and areas of need.
- Highlights of your week.
- Challenges or barriers to your success.

Action item:

Mentee

- Return to your next meeting with your update goals sheet and a draft resume





Week 4

or hour 4

A learning conversation

Mentor:

- Talk about skills associated with STEM and how they relate to the mentee's vision for herself.
- Create two to five goals for your work together that involve learning and lead to defined outcomes.

Mentee:

- Share your personal and/or educational experience to date and the areas in which you feel you need to grow and learn.

Note: Try to use the entire hour to share stories and learnings from both mentor and mentee.

"The best help we can offer the youth of today is to prepare them for tomorrow."

- Mark W. Boyer



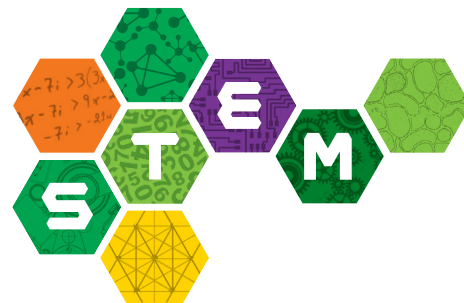
Notes:

What I learned about my mentor/mentee:

Action item:

Mentor

- Take home and review your mentee's SMART goals sheet and her draft resume.



Week 5

or hour 5

The importance of your network strategies to build it

Mentor:

- Work with your mentee on ideas to build a network.
 - Get creative and if you use LinkedIn, are part of specific volunteer group, school organization, tell all
 - If applicable, help mentee build a good profile for your school's networking platform/system.
 - If your mentee is working or involved in school activities, discuss steps to garner more leadership opportunities.
- The next time you meet, if possible, go to an event together to teach her how to network effectively.
- Alternatively, suggest a good book that could lend itself to a discussion on this topic.

"Tell me and I forget, teach me and I may remember, involve me and I learn."

- Benjamin Franklin

Notes:

5 Key people to have in my network

Building a personal, educational and/or professional network is important. List five key people you need to have in your network.

Note: If you are in high school, get creative with your network and include teachers and family friend

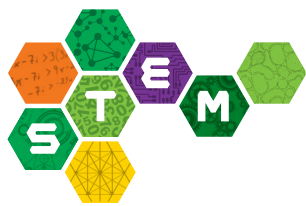
Action items:

Mentor

- Emphasize the importance of outreach and critical follow-up skills, as well as what to do if someone does not respond to the outreach

Mentee

- List three action items for building your network and get feedback on you resume



Week 6

or hour 6

Action! Action! Action!

Mentee:

- List the actions you will take this week and next to reach your SMART goals.
- If you are employed, list projects and research you would like to be involved in and how to present it to your manager.

Mentor:

- Show two role model videos from websites such as TEDx talk, Leanin.org, Fabfems.org or Code.org. What made these women successful?

“The delicate balance of mentoring someone is not creating them in your own image, but giving them the opportunity to create themselves.”

- Steven Spielberg



Notes:

SMART goals

Specific • Measurable • Attainable • Relevant • Time-bound

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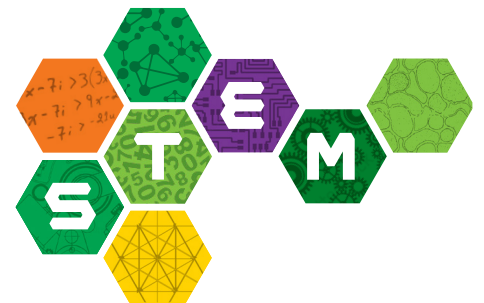
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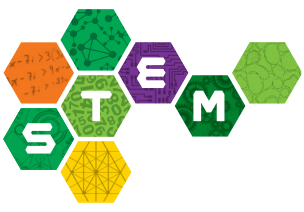
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Action items:

Mentee

- Update your SMART goals based on your discussion and email them to your mentor
- Research two role models in your field of interest





Week 7

or hour 7

Happiness and a positive attitude

Mentor and mentee:

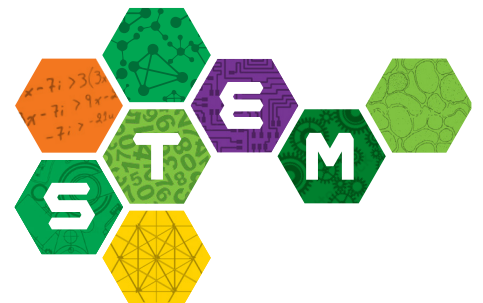
- Mentor, give examples from your academic or professional life about people who seem to be genuinely happy.
- Mentee, give examples from your academic or professional life about people who seem to be genuinely happy.
- What makes them this way?
 - Abraham Lincoln said, "You can be as happy as you choose to be."
 - Do you and your mentee agree with this statement?
- Discuss the best way to avoid gossip at work/school and some common pitfalls that make people unhappy.
- LRN.com is a good resource for this topic and is led by Dov Seidman and Ted Leonsis, who also wrote a book on the subject. Related videos are available online at LRN.com.

"Somewhere, something incredible is waiting to happen."

-Carl Sagan

Notes:

Happiness and Culture



Week 8-10

or hour 8-10

Talking is important,
but experience is the better teacher

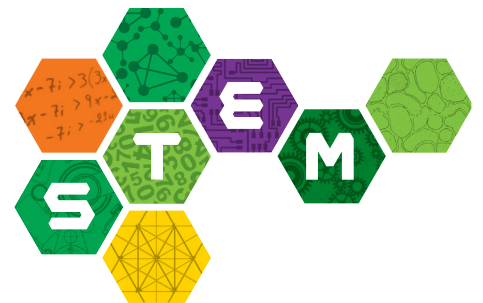
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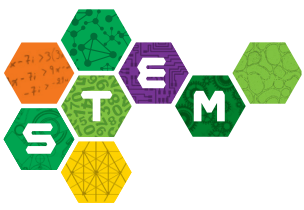
- Based on your conversations with your mentee, suggest a STEM-focused professional development experience she may not have otherwise considered
 - For instance, take a trip to a science museum, participate in a math competition, interview young women and leaders at a nearby technology company, or visit a manufacturing company that uses robotics.
- If your mentee is over 18, consider connecting her with a close contact and setting up an opportunity for her to interview him or her. (It may be ideal for her to conduct the interview independently.)
- If your mentee is already working in a STEM field, another option might be to have her attend a skills-building class or workshop that directly supports her professional development goals.

“Projects we have completed demonstrate what we know –
future projects decide what we will learn.”

-Dr. Moshin Tiwana

Notes:





Week 9

or hour 11

Mentee empowered

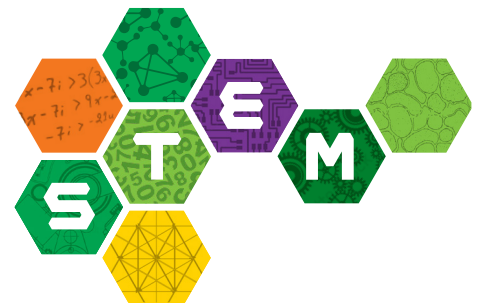
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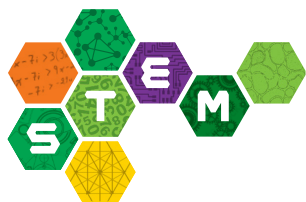
- It is highly recommended that your mentee completes the Gallup Strengths Finder survey or a similar exercise. (Many inexpensive or free options are available online.)
- Once she completes the survey, ask her to email the report and her thoughts on her results to you in advance of your next meeting.

“You gain strength, courage and confidence by every experience in which you really stop to look fear in the face...You must do the thing you cannot do.”

-Eleanor Roosevelt

Notes:





Week 10

or hour 12

Strengths, weaknesses,
opportunities, and threats

Mentee:

- Share what you are really good at
- Share what you would like to grow in
- Share where you see opportunities (personal/ professional)
- Share some challenges to your success:

Mentor:

- Help mentee determine how to leverage their strengths in work and life

“Nothing in life is to be feared. It is only to be understood.”

-Marie Curie

SWOT chart:

SWOT stands for

Strengths • Weaknesses • Opportunities • Threats

Mentee:

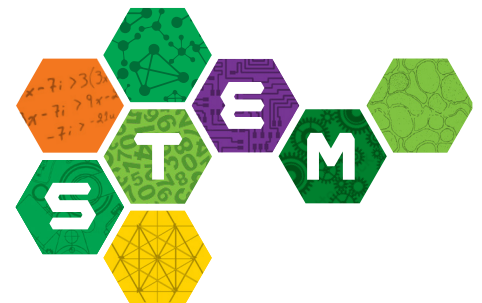
- Once you've completed your SWOT matrix, use the information to develop a strategy and answer the following questions:
 - How can I take advantage of my strengths?
 - How can I minimize the effect of my weaknesses?
 - How can I capitalize on opportunities?
 - How can I successfully manage threats?

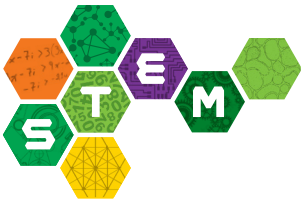
Strengths	Weaknesses
Strengths are qualities that help you achieve your goals.	Weaknesses are qualities that limit your ability to achieve your goal
Opportunities	Threats
Opportunities are elements in the external environment that could help you achieve your goals.	Threats are elements in the external environment that could negatively impact your ability to achieve your goals.

Action Items:

Mentor

- Use the strength-based approach with your mentee and provide guidance on the types of careers well-suited for her strengths.
- Share your weaknesses and how you built a career leading your strengths





Week 11

or hour 13

Focus! Focus! Focus!

Mentor and Mentee:

- Discuss how to prioritize the most important things in your personal and professional life. Many young women experience elevated stress levels when they take on too many commitments.

“Women, like men, should try to do the impossible, and when they fail, their failure should be a challenge to others.”

-Amelia Earhart

Notes:

Mentee shares ideas:

To protect my time and focus; I am dedicated to saying “yes” to:

1.

2.

3.

4.

And “no” to:

1.

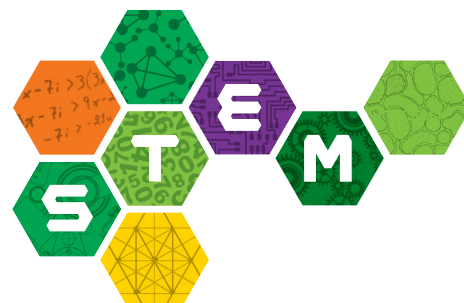
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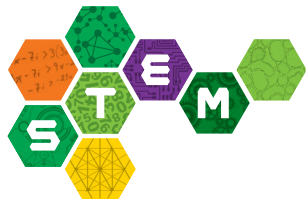
3.

4.

Action item:

- What are three things you can say “no” to? What do you choose to say “yes” to?





Week 12

or hour 14

Connecting

Mentor:

- Take this week to connect with your mentee on what they have already learned through this mentorship process. What other expectations or hopes might they want to address?
- Discuss gender bias in STEM, share any relevant stories, and women role models you and your mentee have in your lives.

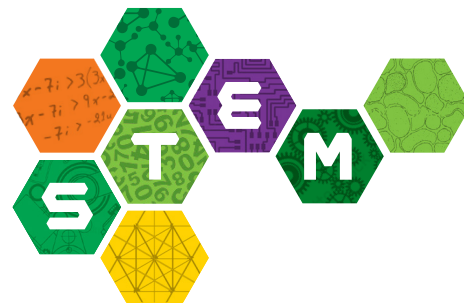
“A mentor empowers a person to see a possible future, and believes it can be obtained.”

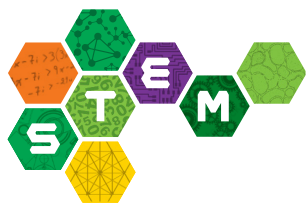
-Shawn Hitchcock

Notes:

Action items:

- Connect with one or two organizations for learning opportunities related to your interest.
- Draft a letter or email inquiring about their programs and provide a copy to your mentor prior to sending.





Week 13

or hour 15-20

STEMxpereince

Mentee:

- Research an organization or opportunity related or helpful to your academic or professional interests and set out this week or next to experience it. Focus on something you might want to pursue in your education, career, a charitable cause you support, or an internship of interest.

For example: Speak to a teacher or counselor about sitting in on a STEM-related class or activity. Use this experience as an opportunity for networking as well.

Alternatively, shadow your mentor or family friend to learn more about their work and career path. Make a plan to interview some of their co-workers.

Life isn't about finding yourself. Life is about creating yourself."

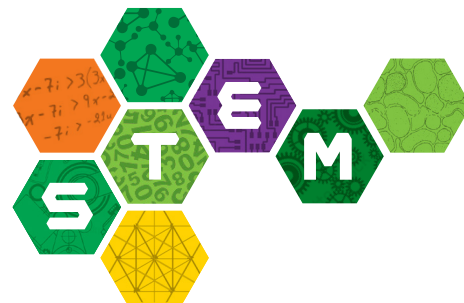
-George Bernard Shaw

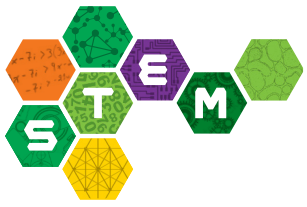
Notes:

Action item:

Mentee

- Is there an area in your life where you are supporting younger girls or women with what you have learned so far in this program? Also, if you are looking for an internship or job, have you specifically asked people to help with introductions?





Week 14

or hour 21

SMART goals

Mentee:

Break down the SMART goals you wrote on Week 5 into quarterly action items, or what you will do in the next 90 days, six months, nine months and 12 months.

If you and your mentor would like to continue your relationship, keep going and we wish you the best!

Moving forward, you should meet one to two times per month. One time should be at an event where there is an opportunity for networking or connecting with a larger group that you and your mentor can learn from.

Action item:

Mentor

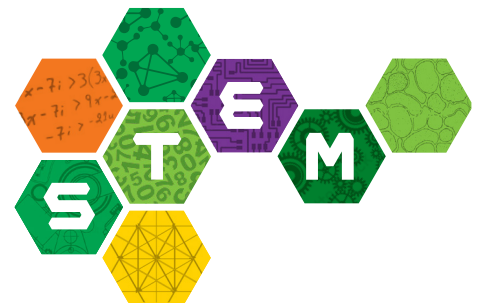
- Please be sure to log your mentor hours on the BP STEM Ambassador volunteer portal. You can also submit your volunteer hours for BP Foundation matching hours donation.

Notes:

Action item:

Mentee

- Please use the list of resources on the following page to assist you in the following STEM pathway.





Resources

- National Center for Women and Informational Technology (www.NCWIT.org) – Research and tools
- The National Mentoring Partnership (www.mentoring.org) – provides resources on the value of mentoring, along with a guide developed by the Mentoring Partnership in Pittsburgh (mentoringpittsburgh.org)
- The Community Core (www.npower.org) – register to find STEM-related volunteer and mentoring opportunities
- Volunteer Match (www.Volunteermatch.com) – millions of opportunities!
- FabFems (www.fabfems.org) – a national database of women from a broad range of professions in science, technology, computer science, engineering and mathematics who are inspiring role models for young women. The directory is free and accessible to young women, parents, girl-serving STEM programs and other organizations working to increase career awareness and interest in STEM. The FabFems Project is an innovative online collaboration tool brought to you by the National Girls Collaborative Project.
- Girls Who Code (www.girlswhocode.com) – Hour of Code
- Khan Academy (www.khanacademy.org) – Computer science resources
- Code.org (www.code.org) – Computer science resources
- Lean In (www.leanin.org) – video of female role models (many in STEM careers)
- Techbridge (www.techbridge.org) – has a wealth of research and resources to help you develop your skills as a mentor

Mentoring Statistics

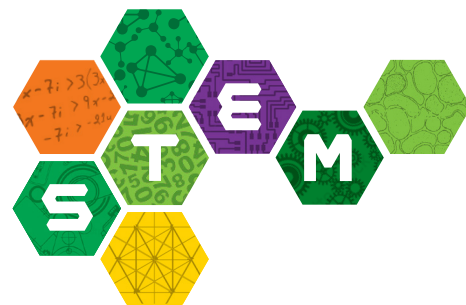
75% of all college students are women and students of color, which they represent 45% of STEM degrees earned each year.

While women comprise 48% of the U.S. workforce, just 24% are in STEM fields, a statistic that has been constant for nearly the past decade.

80% of the fastest growing occupations in the United States depend on mastery of mathematics and scientific knowledge and skills.

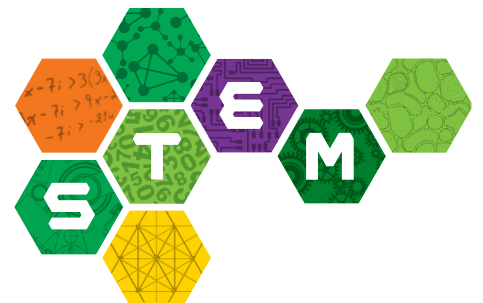
Girls with a mentor are 2.5 times more likely to be confident in their ability to succeed in school and their careers.

Women with STEM jobs earned 33% more than comparable women in non-STEM jobs – considerably higher than the premium for men.



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Notes:



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