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# Women in STEM

## **Introduction:**

Science, technology, engineering, and math (STEM) are exciting areas of study and career fields. STEM encompasses so many different disciplines: from any kind of engineer or scientists, game wardens, computer technicians, and teachers, just to name a few. Historically, many groups, including women have been underrepresented in STEM fields. However, in recent years many organizations have been working to change that by sharing stories and contributions that have been “lost” or untold and by encouraging everyone in the next generation to explore and learn about STEM. Part of LUMCON’s mission is to make marine science accessible to everyone. The more diversity we have in marine science the better our understanding of the ocean and coastal ecosystems will be.

## **Learn more about an influential woman in STEM:**

Everyone needs people who inspire, support, and guide them through their academic and professional lives. This can be especially true if you find yourself perusing a career in a STEM field in which no one in your immediate circle have any experience. Interviewing people can be a great source of information. You may even find a mentor, someone that shares your passion and can help you navigate the path you have decided to follow. The following activity has been designed to help you reach out to someone that can be a source of information that will give you insight into a career in STEM. By following these steps and using the advice provide below you will find yourself beginning an incredible exploration in the world of STEM careers.

Interview a woman in a STEM profession

Step 1. Selecting a person to interview:

- Start with doing an internet search to find someone that works in a STEM field you are passionate about. Be sure to read all the information about that person you can find to become familiar with their work. This will help you develop your questions.
- Below are some suggested methods for finding potential mentors.
  - It could be someone you already know or someone that your teacher/instructor knows.
  - Search university web pages- departments typically list faculty and their major field of study and their interests.
  - Use social media like Twitter- common hashtags like #sciencetwitter, #BlackAFinSTEM, #BlackBirdersWeek, #WomeninSTEM, etc. are useful
  - Search Google scholar for publications about your area of interest and research the authors of the paper.
- Next, create a list of questions to ask this person. It is important to have question prepared ahead of time, especially if a phone call is the preferred method of communication. Not having questions ready ahead of time can often waste valuable time and will limit the time you have to interact with the person.

- Think about questions that address the following areas;
  - who were their mentors,
  - what they like about their field,
  - when did they realize what field they wanted to pursue as a career,
  - where they got their education,
  - why they feel their work is important,
  - and how they got where they are today,
  - What they think are the most important skills to develop for a career in their field.

## Step 2. Making contact

- Start by emailing the person you have chosen. Be sure to introduce yourself by including the information below
  - Your name.
  - Why you are contacting them specifically e.g. “I am contacting you because I found your information on this website (include link to the website) and I am very interested to find out more about your work and your role in your organization.”
  - Tell them that you have prepared questions and have included them to the email. This will give the person time to think about their responses to your questions. It is helpful if your list of questions were in list form with numbers or bullet points.
  - And ask if they can answer your questions by email. As an option you could also include that you are also available for a phone conversation.
  - It is common for people to include their email addresses in the body of an email. If there is other contact information you think the person should have (alternate email address, Skype name, etc) you should include that as well.
  - Thank the person for their time and that you are looking forward to hearing from them.
  - End the email respectfully using “Best Regards”, “Sincerely”, or “Thank you” and then add your name.
- Don’t expect a response from the person immediately. It could take a while for the person to receive your request and respond to your questions.
- If you don’t get a response within 2 weeks you can reach back out to them just to remind them of your request. It is very important to remain polite and be understanding that their time is valuable.

## Reflection

Congratulations! The first and often more nerve-racking part of this activity is over. Reaching out to someone means that you were brave enough to take the first step in introducing yourself to someone you have never met. That is hard, but if you did the work and followed the advice given above you can be sure that you have presented yourself professionally and in the best possible light. Now it is time to put that hard work to use. The next step would be to process the information you have been given. Below are questions that you can use to help you unpack

all the useful information you have been provided. Thinking about your answers to the questions below will help determine what your next steps should be.

*Questions:*

- Why did you pick this person to learn more about?
- How have they influenced you with the answers to your questions?
- What are things you can take away from your interview with them?
- Are there things that you need clarification on?
- Did they provide you with names of other people you should talk to?
- Are their answers different than ones from other people you contacted? Why might that be?

**Step 3. Building a lasting relationship.**

Now that you have identified some potential mentors, made contact, and have had some interaction with you can begin to build a relationship. Building a lasting relationship requires work from both people. Below are some questions that are useful to have answers for before you start to build that relationship.

- Do you look up to this person? First in foremost, every good mentor relationship start with respect.
- Will you be able to work well with this person? A mentor must be supportive (of all that makes you who you are), be able to communicate effectively and honestly with you, be inspiring, be able/willing to teach you, and feel that your needs and career are important.
- Is this person going to guide you to your future goals? A mentor is not someone that gives you all the answers. They are there to guide you and support your choices.
- Does this person love what they do? A person that loves their career and their work always make better mentors than someone that is unhappy with where they are professionally.

**Extend your knowledge – using history to shape a vision for the future:**

Investigate some women in history that have forged the path for future generations of women. For stories about amazing women in history, check out:

<https://obamawhitehouse.archives.gov/women-in-stem>

Use your new knowledge to create something that highlights what you have learned. Some examples include:

- writing a short biography as if you were already a STEM professional (where you went to school, what things you have accomplished, where you'll be living, and working, etc),
- creating a portrait of yourself as a STEM professional,
- writing a poem about what your life with be like as a STEM professional,
- write a short story that includes information about the following items.
  - if someone were to interview you in the future, what are things you hope you could tell them about how things have improved for women in STEM?
  - What goals do you want to accomplish? What impact do you hope to make in the world?