

STEM Career Scavenger Hunt Activity

Lesson Plan for Counselors & Educators

Audience: Middle and High School Students

Time Needed: 30-60 minutes (depending on discussion)

Objective: Through this activity, participants will increase their awareness of opportunities and pathways to STEM careers.

Overview: The purpose of this activity is to introduce students to two similar online tools for exploring careers. In addition, the activity creates an awareness of various pathways to STEM careers, and includes positive messaging that improves accessibility and attraction of these careers.

This activity includes three handouts: a web resource page, a STEM Career Search Matrix to get accustomed to the web resources and see the various pathways and opportunities, and a STEM Career Scavenger Hunt worksheet that focuses on the positive messaging. Internet connectivity is required, and preferably for each participating student.

There are two parts to this activity, each including discussion.

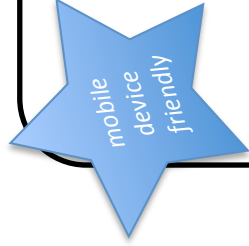
Lesson:

1. Introduction: Careers in Science, Technology, Engineering, & Math (STEM) are in demand, and the opportunities are extensive. There are multiple pathways and options for students. This Scavenger Hunt will allow you to explore and learn more about STEM Careers.
2. Activity Part 1: STEM Career Search Matrix
 - a. Using one or both of the websites provided, complete the matrix by discovering STEM careers that are new and interesting to you. Students should work alone or in pairs. *Allow ~10 minutes.*
 - b. Invite students to share what they learned from this exploration. You might have them discuss in small groups of 4-6 first before opening up to the larger group. Topics might include amount of education, money earned, and unique careers. STEM professionals are in demand, and that means that there are jobs, for example technician jobs in manufacturing, that require STEM skills and minimal education and can be a great option for some students. Others might see this as an incentive to unnecessarily avoid more education. Challenge their thinking by discussing how education enables more opportunities for advancement and potential earnings over time. *Allow ~10 minutes for discussion.*
3. Activity Part 2: STEM Career Scavenger Hunt
 - a. Using one or both of the websites provided, complete the worksheet by discovering 15 different STEM careers that are new and interesting to you. Students should work together in small groups, with each student searching independently if possible, so that they can explore more STEM careers and discuss why one career fits a certain worksheet space better than others. As students are working, continue to challenge them to discuss their rationales, so that they can prepare for a presentation of their group findings. *Allow ~25 minutes.*
 - b. Invite the small groups to share their findings. You can hang 6 posters around the room with the headings of 1) STEM Careers are in Demand, 2) STEM Careers are Creative, 3) STEM Careers are Collaborative, 4-6) STEM Careers are essential to our Health... Happiness... Safety. You can have each small group write their career findings on the appropriate poster as they finish 3.a. Review some of the findings and invite a large group discussion on why a career is essential or creative or collaborative. *Allow ~10 minutes for discussion.*
4. Summary: Careers in STEM make a world of difference and help shape our future. You have now learned how to use two career search tools to help you further explore what opportunities are available to you in STEM. You have learned about 15-20 new and interesting careers to consider for your future as well!
Ask students how they plan to use these search tools moving forward. This participation should increase the interest and motivation for those who don't have a plan to use it further. Feel free to also ask about what they learned over all. *Allow ~5 minutes for closing.*

Explore STEM Careers!

Want to learn more about careers in Science, Technology, Engineering & Math?

Browse through detailed information of hundreds of careers to discover what STEM professionals really do, what they earn, and what it takes to prepare for these careers.



www.bls.gov/ooh

Review these Occupation Groups for STEM Careers

- Engineering & Architecture
- Computer & Information Technology
- Healthcare
- Life, Physical, and Social Science
- Math
- Production

Occupational Handbook

www.sciencebuddies.org

Select the Green Tab Labeled Science Careers. You will then see below the colored tabs, five grey tabs labeled:

- Earth & Physical Sciences
- Life Sciences
- Engineering
- Math & Computer Science
- Health



Science Buddies

STEM Career Search Matrix

Instructions: Complete the following table by selecting STEM Careers that are **new & interesting** to you. For the row labeled graduate, you will select a career that requires at least a masters or doctorate degree, and etcetera for the other two rows. An example is provided.

	Career or Job	Pay & Outlook	What do they do?	What would I need to do?
EXAMPLE	Environmental Engineer	\$78,740 / year 22% growth	Environmental engineers use the principles of engineering, soil science, biology, and chemistry to develop solutions to environmental problems. They are important for protecting our environment!	Environmental engineers must have a <u>bachelor's degree</u> in environmental engineering or a related field, such as civil, chemical, or mechanical engineering. Employers also value practical experience, so I should seek an <u>internship</u> . In high school, I should take related sciences. Environmental engineers should be <u>creative</u> , inquisitive, <u>analytical</u> , and detail oriented. They should be able to <u>work as part of a team</u> and <u>communicate well</u> . I can start developing those skills now.
GRADUATE				
BACHELORS				
ASSOCIATES				

Careers in Science, Technology, Engineering & Math make a WORLD OF DIFFERENCE & HELP SHAPE OUR FUTURE!

STEM Career Scavenger Hunt | Instructions: Complete the following worksheet by selecting 15 different STEM Careers that are *new & interesting*.

STEM Careers are Creative

Identify 3 STEM careers that benefit from creativity

STEM Careers are In Demand

Identify 3 STEM careers with growth over 25%

Identify STEM careers with work that contributes to our Health, Happiness, & Safety (Cannot include Health Professions)

STEM Careers are Essential to our:

STEM Careers are Collaborative

Identify 3 collaborative STEM careers