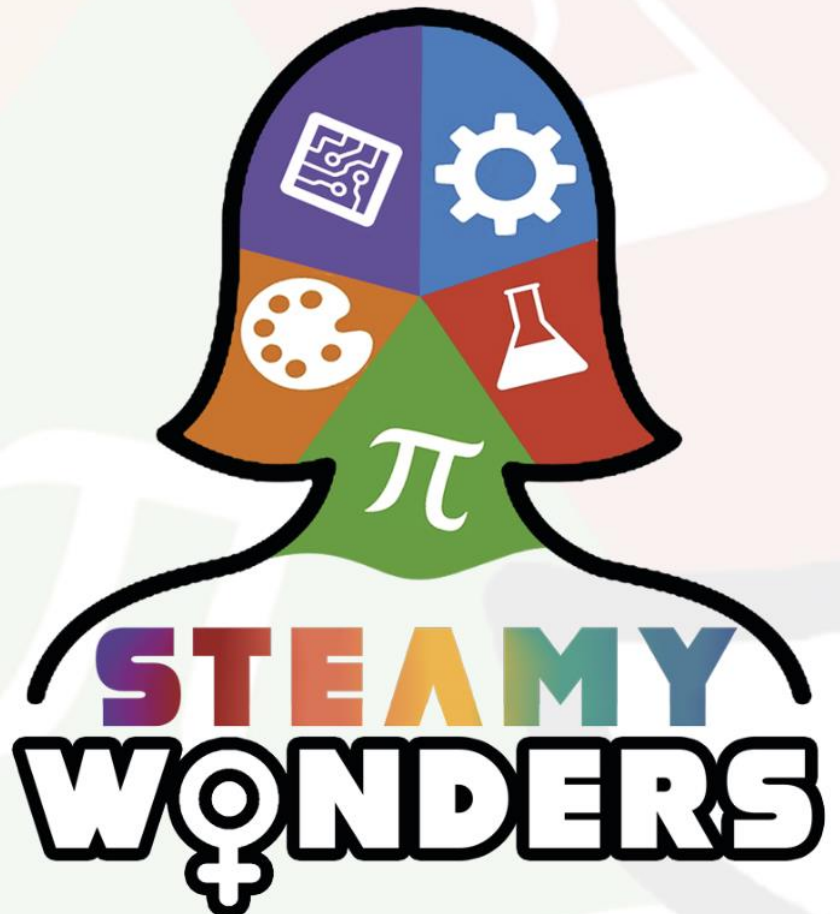


WebQuest

Science – Motivation





Element 4: A WebQuest.

THEME ALLOCATED:	Science - Career Planning
TITLE OF THE WEBQUEST:	Your Guide to Rocket Science and Flying to the Moon
INTRODUCTION	
<p>A career in science can be an exciting route to pursue with a great number of careers available to the budding scientists! Careers in science can take you anywhere from Marine Biology all the way to Biochemistry. A career in science can be a rewarding role as you take place in important careers that challenge issues facing our health, future and environment. However, females are often underrepresented in scientific careers and with this comes the loss of their perspective. Germany in comparison to the rest of Europe sees relatively few females taking up careers in science with women only filling 28% of science roles (Hruby, 2019). This is changing however, with more and more employers, colleges and universities encouraging the participation of women in STEAM. There has never been a better time to get involved with STEAM and join some of the great examples of female scientists such as Grace Hopper, Marie Curie and Rosalind Franklin.</p>	
TASK:	
<p>So, you are considering a career in Science? In order to plan your career, you will need to use a Career Management Tool! To support you to plan your potential career in the Science sector, we suggest you create your own personalised Career Model Canvas! Through this task, you will also explore different personal competences and how they relate to potential careers. These Competences include:</p> <ul style="list-style-type: none"> ● Competences of the Self – Being able to know your own worth and what you can provide to a company, organisation, or society. ● Competences of Strength – Being able to acquire and build upon own abilities and strengths that can be applied to both education and working lives. ● Horizons Competences – Being able to creatively think about career prospects by imagining, planning and act upon career ambitions. ● Network Competences – Being able to develop important relationships and networks that can provide support or opportunities. <p>By discovering our personal competences, and understanding our strengths, networks, and horizons, we can begin to explore potential careers that are open to us in the Science sector. Understanding your strengths and recognising your accomplishments is the first step to supporting you to devise an educational and career path to meet your goals. At the end of this WebQuest you will have gathered information on different careers in science and what skills are needed for them. Along with this will be a list of available supports and resources that are available to you that can help you to work towards your goals.</p>	
PROCESS:	
STEP 1 – RESEARCH AND EVALUATE CAREERS IN SCIENCE	
<p>The first step in pursuing a career in science is to first find a career that you feel may be suited to you. You may have already decided what kind of career you wish to follow,</p>	





however if not, a great place to start is by researching different sciences and their careers. For your convenience, a number of links have been provided below that will help you to find careers under the different sciences. It is important that you find a career that you feel will both suit you, and be enjoyable to you, so take your time reading about each role and what progression pathways may be available to you.

- A List of Science Careers

<https://careerswithstem.com.au/science-careers-list/>

- Explanation of Different Sciences and Relevant Careers

<https://science.acadiau.ca/careers-in-science.html>

- Resource for Finding Careers in Germany

<https://jobboerse.arbeitsagentur.de/prod/vamJB/startseite.html?aa=1&m=1&kgr=as&vorschlagsfunktionaktiv=true>

STEP 2 – RESEARCH THE SKILLS REQUIRED OF YOUR SCIENCE CAREER

The second step for creating your career plan is to assess the skills required in your chosen career. This step is important as it will help you to decide how you create your pathway to this career. We need to be able to honestly match our skills and abilities to the requirements of the position, so that we can accurately plan for things like personal growth or potential education routes if we need to upskill. You can find what different skills are needed in general from the links below, however it is important that you also search available job positions in your area, as employers may have more specific requirements!

- Skills Related to Scientific Roles

<https://www.sciencemag.org/careers/2012/09/so-you-think-you-have-skills>

- Skills needed for a Research Scientist (other jobs available at the bottom)

<https://targetjobs.co.uk/careers-advice/job-descriptions/278833-research-scientist-job-description>

- Scientist skills: definition and examples

<https://www.indeed.com/career-advice/resumes-cover-letters/scientist-skills>

STEP 3 – LIST OF EDUCATION AND AVAILABLE SUPPORTS

The next step needed for creating a career plan requires mapping out the available supports and educational resources that are available to you. This is important as you may need to possess educational qualifications relevant for the role. For example, for a biochemistry position, you may need to hold a degree in Advanced Science or Biochemistry and Molecular Biology. We need to make sure that we account for the





educational requirements of the position and plan accordingly. From your previous research about your chosen career, note down any educational requirements. If you do not possess a relevant qualification you may need to look at what courses or programmes of study are available to you along with supports such as short courses for digital skills. The links below will help you get started.

- Official Study Guide for Germany

<https://studienwahl.de/en>

- Find Study Programmes in Germany

<https://www.study-in-germany.de/en/plan-your-studies/find-programme-and-university/?a=result&q=Science°ree=&courselanguage=&locations=&admissionsemester=&sort=name&page=1>

- Higher Education Compass for German Science College Courses

<https://www2.daad.de/deutschland/studienangebote/studiengang/en/?a=result&q=Science°ree=&courselanguage=&locations=&admissionsemester=&sort=name&page=1>

STEP 4 – TAKING NOTE OF RESOURCES AVAILABLE TO YOU

The next step in a career model canvas is to focus on what resources are available to you. This can include resources like financial backing, but it is also crucial to consider the social resources available to you. This comes in the way of networking. Networking can include your friends and family who may offer you financial or emotional support but can also include links to potential employers or even employment services. These services can offer you a starting point for being your networking journey, as they can provide you not only with advice for your potential career, but also can get you connected with potential employers. The below links will help you to discover which networks are available to you and how you can depend on them when needed.

- How to Network Like a Pro

<https://blog.hubspot.com/marketing/networking-connections>

- How to Map Social Networks

https://socialnetworking.lovetoknow.com/How_to_Map_Social_Networks

- How Social Networks Can Help Your Job Search

https://saylordotorg.github.io/text_six-steps-to-job-search-success/s15-social-media-and-the-job-search.html

- German Employment Support Agency

<https://con.arbeitsagentur.de/prod/profil/profil-ui/eservices>





STEP 5 – WHAT ARE THE FUTURE CAREER PROSPECTS?

We need to also consider the future career prospects that come with our chosen career. It is important to remember that it may not always be possible to start in the best position available, but rather we may need to grow into the position we want. This is particularly the case if we want to build required experience in the profession. Therefore, we need to research the potential growth that there is with the career that you have chosen and whether there are access routes for promotion and personal growth available. Often this will be stated in the original job description from the previous step. We can also search for career growth prospects by searching for other relevant job positions or information. For example, you may want to become a Chemical Research Manager, however it may be necessary to start as an Assistant Laboratory Technician first. We need to look at the progression route then and check what the next job in your career progression pathway requires, this will help you to find opportunities for relevant up-skilling, and will act as a check-list for ensuring that you gain the experience necessary to progress. A Laboratory Technician may require 2 years' experience, while the next step as a Chemical Research Manager may require 3 years' experience as a Laboratory Technician. It is important that we take note of these requirements and steps, as it is easy to get lost or to take a misstep on your search for your dream job.

- What Can I Do With a Science Degree?
<https://sci.umanitoba.ca/students/what-can-i-do-with-a-science-degree/>
- 9 Science Careers
<https://www.thebalancecareers.com/science-careers-525645>
- Careers
<https://www.glassdoor.com/>
- Science careers
<https://jobs.sciencecareers.org/jobs/germany/#browsing>

STEP 6 – Career Model Canvas

You have reached the final step! This is where you put everything you have discovered, learnt and researched from the previous steps into practice by completing your career model canvas. A career model canvas is a personal resource that will help you to visualise your career progression pathway, and will help you to plan key actions that will bring you to career success! An example of a career model canvas is included in this document as a (DOWNLOAD FILE OR GOOGLE DRIVE). Make your own copy of this canvas and add all of the information gathered from the previous steps into your own Career Model Canvas.

- STEAMY Wonders Career Model Canvas
https://docs.google.com/presentation/u/1/d/1LEKxRYPR1qBw7Mdi3Fuh_x9n_bRzNN4/copy





- Creating a Business Model, But For Your Career

<https://instituteofyou.org/personal-business-model-canvas/>

EVALUATION

Topic	Knowledge	Skills	Attitudes
Science	<ul style="list-style-type: none"> ● Factual knowledge of available career pathways into the Science sector. ● Theoretical knowledge of personal attributes required for career success in this sector. 	<ul style="list-style-type: none"> ● Discuss career options in the science sector. ● Self-evaluate personal suitability to careers in this sector. ● Develop an education and career plan for success in the Science sector. 	<ul style="list-style-type: none"> ● Willingness to assess one's own motivation to pursue a career in the Science sector. ● Openness to exploring career options in the Science sector.

Questions

What are three skills that you need for your role in science?

What are the main benefits of career planning?

- Allows you to be unemployed for longer
- Helps to make a clear path towards your desired career
- A career plan is a great alternative to a CV

What social networks and resources did you find that were available to you?

CONCLUSION





Congratulations! By completing this WebQuest you should now have a clear and exciting career plan in front of you! You will have a clear outline of your desired career and what skills and qualifications you will need to apply. Hopefully your career plan will provide you with a personal step by step guide to working your way up to the job you want and where your career can potentially grow. All that's left is for you to follow the plan and follow your dreams!

"Above all, don't fear difficult moments. The best comes from them" - Dr. Rita Levi-Montalcini



STEAMY WONDERS

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