



WebQuest – Mathematics

TIME ALLOCATED (described in teaching period of 40-minutes, i.e. 1 or 2 teaching periods):	2 Teaching Periods
TITLE OF THE WEBQUEST:	On your maths, get set, go!
INTRODUCTION	
<p>Mathematics has been used since the 6th century BC. It provides us with an effective way of building intellectual discipline and promotes logical reasoning. Mathematics plays a fundamental role in understanding the way the world around us functions. It also contributes greatly to other areas of study, such as science, social studies and even art!</p> <p>Mathematics on a basic level, helps us to make better choices throughout our everyday life. It encourages us to develop the ability to think, to explain how things work and to develop wisdom. Career opportunities in mathematics can allow you to analyse and solve problems. It motivates us to approach tasks methodically, pay attention to detail and think abstractly. When you think about it, many careers demand mathematical capabilities, so why not take a look and see if it is the right fit for you!</p>	
TASKS	
<p>Planning your career can be a daunting thought, but with the right tools and techniques it can be a manageable task. A career in mathematics has always been your dream. Now that you have finished your studies, you are finally ready to start looking for a new job as an accountant. Where to start?</p> <p>To prepare yourself for this new and exciting prospect in your life, you decide to create a career plan, that will help you to achieve your goals and stay motivated. Let's get started!</p>	
PROCESS AND RESOURCES	
<h3>Step 1: Researching Mathematic Careers</h3> <p>After passing your exams, you are excited to see what the world of mathematics has to offer in terms of a career path. You feel excited to find out more and decide to conduct some research.</p> <p>For information about careers in mathematics, click on the following links:</p> <ul style="list-style-type: none">● What can I do with my mathematics degree?● Careers for mathematicians● What you can do with a mathematics degree	



There are so many options within this sector! You think it would be a good idea to gain some inspiration from others. What better way to do this than by researching successful women within this field? You open a new tab...

For more information on **successful female mathematicians**, click on the following links:

- [Famous female mathematicians](#)
- [10 historic female mathematicians you should know](#)
- [Ireland's pioneering mathematical women](#)

Wow! Their stories are incredible! You feel inspired by these pioneering women and excited to embark on your new career journey.

Step 2: Your 5-Year Plan

After your research, you begin to think about what the next steps should be for you to take. How can you get started? How can you plan your future career? You start thinking about what you want to achieve over the next five years. Where do you see yourself? When creating a 5-year plan, you should following these tips:



For information on **5-Year Plans**, follow the links below:

- [Career development: 5-year plan](#)
- [How to write an achievable 5-year plan](#)
- [A guide to crafting your 5-year plan](#)

Identifying what you want to achieve in your professional life, can help you to be more motivated to achieve your goals. This gives you the needed direction and makes it clear where you see yourself in the future. It can also identify your strengths and weaknesses, and the skills and knowledge that are required to achieve your career goals! You find the following template online, and decide to complete it:



My 5-Year Plan			
	Role	Steps for Me	Steps for others who will support me
Year 1			
Year 2			
Year 3			
Year 4			
Year 5			
Goal			

Step 3: Skills and Knowledge within the Mathematics Sector

Now that you have made your 5-year plan, you have a better indication of what your mathematics career plan is going to look like. This can guide you to achieve the goals you set out in your career plan. In order to achieve this, you will also need to discover the necessary skills and knowledge that is needed within this sector.

For more information on **skills and knowledge needed within this sector**, click on the following links:

- [Skills and abilities needed in the field of mathematics](#)
- [Career guidance: mathematics skills within the sector](#)
- [What is needed for a career in mathematics?](#)

You decide that you want to identify your own strengths and weaknesses. This can help you to discover what skills you already have and which ones you want to further develop. There are countless tests online which can help you to identify this.

For **skills assessment quizzes to test your current ability**, click on the following links:

- [Strengths & weaknesses aptitude test](#)
- [Skills assessment](#)
- [What are my skills? - Quiz](#)

Knowing your skills is important and a crucial step in forming your career plan. It helps you to develop a better career objective. It can also guide you to a particular job profession that is more suited to you as an individual! The most common skills needed in mathematic careers are:



- Critical thinking
- Problem solving
- Analytical thinking
- Quantitative reasoning
- Ability to manipulate and intricate ideas
- Logical reasoning
- Communication
- Time management

Step 4: Your Career Prospects

You are prepared and confident that you are willing and able to enter a professional role within this sector. Career planning provides much-needed motivation and guidance and it can give you a clearer picture of what you want to achieve. The field of mathematics is an exciting and varied area of study that can open up a lot of opportunities in terms of career prospects.

For information on **career prospects within the field of mathematics**, click on the following links:

- [Where can a career in mathematics take me?](#)
- [Mathematics career opportunities](#)
- [Maths career opportunities for you](#)

Who knew there were so many opportunities in Ireland for careers in mathematics. It really is a key area of the 21st century with skills that are highly relevant. You have the opportunity to pursue many avenues that interest you!

Step 5: The Final Step – Career Model Canvas

You feel confident to begin your new journey in the next steps of your career. As a final step, you will need to complete your *Career Model Canvas*. Building on your 5-year plan, this tool is a great indicator of how you can identify, review, and develop your career plan.

Firstly, with the document below, make your own Career Model Canvas and fill out the sections with the information you have gathered in the previous steps of this WebQuest. You can use this resource to help you to kickstart your new start in your future career path!

In your own Career Model Canvas you will detail:



CREATE YOUR OWN CAREER MODEL CANVAS



CAREER OR JOB TITLE:

<p>Key Partners (Networks)</p> <p><i>Include an overview of networks in your region, nationally and across Europe where you can access advice on this potential career.</i></p>	<p>Key Attributes (Self)</p> <p><i>List here the key personal attributes that you have, that are particularly useful for your new career. Describe who you are and what you can bring to this role.</i></p>	<p>Value Proposition (Strengths)</p> <p><i>List your key strengths, highlighting the skills and experiences that you can bring to this new career. Try to answer the question: 'What sets me apart from other candidates in this role?'</i></p>	<p>Soft Skills (Strengths)</p> <p><i>List here the soft skills (communication, teamwork, collaboration, etc.) that you have and identify how they can be used in this new career.</i></p>
<p>Key Values (Self)</p> <p><i>List here what is important to you in a career, and in life. List your intrinsic and extrinsic motivations, and state what your personal goals are for this new career.</i></p>		<p>Transferrable Skills (Strengths)</p> <p><i>List here the main transferrable skills that you have from other experiences and life roles. Include an example of how these skills can be applied in your new career.</i></p>	
<p>Revenue (Horizons)</p> <p><i>Research and summarise the salary potential of this role and estimate the opportunities for advancement in this sector for your own career.</i></p>		<p>Growth Potential (Horizons)</p> <p><i>Research and estimate the potential growth in this sector in your country, across Europe and globally.</i></p>	

Click on the following link to **develop and complete your personal Career Model Canvas**:

Your own Career Model Canvas:

<https://docs.google.com/document/d/1ccHhNZmX5OzQKA1ogV5K65Lr-tyaxgZe/edit?usp=sharing&oid=102503783778476750214&rtpof=true&sd=true>

Well done! You should now have a better idea of what you want to achieve in your professional career. You feel motivated to embark on this new journey!

EVALUATION

Topic	Knowledge	Skills	Attitudes
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Science	<ul style="list-style-type: none">● Factual knowledge of available career pathways in the field of Maths.● Factual knowledge of where a Maths qualification can lead.● Factual knowledge of practical applications of Mathematics in a variety of sectors.● Theoretical knowledge of personal attributes required for career success in this sector.● Theoretical knowledge of how to develop an aptitude for mathematics.	<ul style="list-style-type: none">● Discuss career options of a Mathematics qualification.● Self-evaluate personal suitability to careers in this sector.● Self-assess skill deficits for a successful career in the field of Mathematics.● Develop an education and career plan for a successful career in this sector.● Research successful female role models in the field of Mathematics.● Self-assess one's own aptitude for Mathematics.● Solve challenges to build resilience when planning a	<ul style="list-style-type: none">● Willingness to assess one's own motivation to pursue a career in the field of Mathematics.● Awareness of the important role that women play in the field of Mathematics.● Openness to exploring career options using Mathematics.● Willingness to share what has been learned with other female professionals in a network.● Openness to engaging in female networks in the field of Maths.● Willingness to self-evaluate to identify skills
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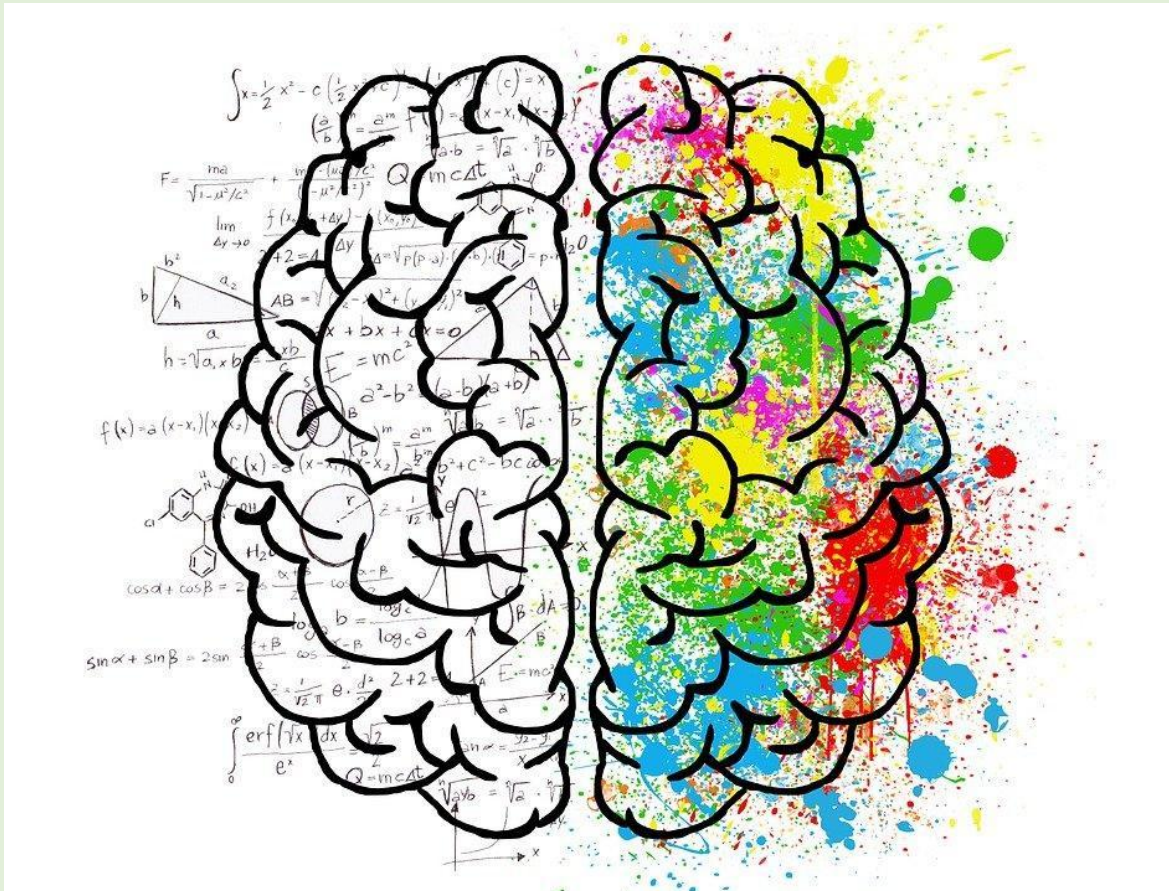
		career in the field of Maths.	and attributes needed to succeed in Mathematic-bas ed careers.
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Let's talk about what you have learned:

- Did you find this activity to be a fun and entertaining way to explore your career prospects?
- Mention 3 new things you have learned about the field of mathematics through this WebQuest.
- How can career planning boost your motivation?
- What steps will you take to achieve your career goals?

CONCLUSION

Congratulations! Not only have you learned about the field of mathematics, its importance, and relevant jobs in this field; you have also gained key career planning skills which can help you achieve your goals! Well done!



“Pure mathematics is, in its way, the poetry of logical ideas.”



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- **Albert Einstein**