CfE Second Level Maths & Numeracy

Project: Research a Famous Mathematician

I have worked with others to explore, and present our findings on, how mathematics impacts on the world and the important part it has played in advances and inventions. ***MTH 2-12a***

It is accuarate to suggest that almost every young person around the world – that goes to school – learns mathematics. This is because mathematics is incredibly important. You may have asked yourself as you struggle through your studies 'what is the point of doing this?' That is a valid question as we learn new skills.

This project is designed to help us to see how important mathematics is to so many different areas of life in the world in which we live.

Task 1: Choose an area of research

The impact that mathematics has had on our world is almost endless. Below are some examples of areas of life and work:

- food
- time management
- transport
- design / manufacturing
- engineering / construction
- medicine / health
- technology
- finance / banking

Either choose one of these area from the given list or select another. Either take the entire research area as a whole, or focus on one small part. If you choose technology, you may research what impact mathematics has had on technology as a whole, or you may want to consider one aspect of technology, such as smartphones or cyber security.

Task 2: Begin your research

(a) Before beginning any research, open a Word document, or a Google Docs document and save it. If you are using Google Docs, your document will save automatically. Name the document *Maths Impact Project*. Put the name of the area you have chosen at the top of the document. This will be your research document.

An online search engine is a great starting point for any research project, although you must take care to ensure that the information you use is from a reliable source. Avoid citing information from online blogs, chat rooms or web pages that are editable by the public, as they may not be accurate. Books are also a valuable tool to reference when researching history. Your school library / teacher may have some relevant ones.

(b) Start researching your subject. You will be required to list any sources referred to in your presentation. It is good practice to make a record of any resources used as you come across them. Try and answer the following questions, in your own words (avoid simply copying and pasting):

- What impact has mathematics made to the chosen area?
- How has this impacted everyday life?
- Where would we be without it?

You will find some links in the appendix at the end of this document which may be a good starting point. If you copy anything from any website, or book, copy the URL of the website or the name and page of the book where you gathered the information.

Task 3: Create a resource to present your findings

Decide which format you will use to deliver your presentation. You could use one of the following:

- Google Slides / Microsoft PowerPoint
- Poster
- Digital resource (webpage, etc)
- Video

The presentation should answer at least the three questions listed in **Task 2(b)** and should reference any sources used.

Whilst you should ensure your presentation is visually appealing to your audience, the focus of the presentation should be on the content. If your resource is digital, consider how it should be accessed - perhaps using a QR code.

Task 4: Present your findings

Present your findings to your class. This should take no more than three to five minutes. Make sure to answer the three questions.

Practice how you are going to deliver your presentation beforehand. Do not go over the time limit and ensure your presentation flows in a logical manner. If you are using PowerPoint or have a poster, avoid reading the information from the slides or poster. If you are presenting as part of a group, have a clear plan of how each of you will contribute to the delivered presentation.

You should consider audience participation where possible, e.g., by allowing time for questions at the end, or including a short quiz.

Appendix:

A world without maths
https://www.youtube.com/watch?v=CINfrC-qJRM

https://teachingmathsscholars.org/news/try-to-imagine-a-world-without-mathematics

Maths in Engineering
https://www.dreambox.com/resources/blogs/architecture-and-construction-through-mathematics

Maths in Medicine
https://www.mooc.org/blog/math-in-medicine-how-is-math-used-in-healthcare

Maths in Technology
https://www.itechpost.com/articles/106335/20210714/how-math-increased-modern-technology-development.htm

Maths in Finance
https://www.mathnasium.ca/2015-01-math-in-everyday-life-banking