



IB MYP YEAR 5

Year 10 Mathematics

IA PREPARATION

Name:

Teacher:

**Ms Li, Ms Lau,
Mr Wong, Ms. Luk**

Duration:

9 lessons

The Task:

For this task, you are required to

- **Decide** on a research topic. It should be something that strikes your interests but the topic has to be related to
 - A real life situation on **"How things grow or decay"** (with approval from your teacher).
- **Research** and gather relevant data for your topic.
- **Organize** the data into tables and suitable graphs.
- **Analyze** the data that you have obtained/generated and make critical comments
- **Generate** a mathematical model from the data.
- **Justify** the model you generated
- **Present** your findings with a critical, meaningful conclusion.

The Final Product:

For this task, you need to produce **a Written Report**, and **a Poster**.

Written Report

- The written report is a detailed account of your findings in relation to your topic. It should be typed and include the following sections:
 - **Introduction & Rationale** – Describe your topic and what you will find out. Explain why your topic was chosen, and what areas of mathematics will you be using to achieve your task
 - **Present** your findings. Include the data you have obtained (in graphs and charts), accompanied with detailed, meaningful analysis.
 - Your **mathematical model**, and a discussion on how your mathematical model was generated
 - A **conclusion** – Summarize and conclude your findings.
 - A **reflection** – **Review, analyze** and **evaluate** your task (in methodology, accuracy, etc). **Explain**, and **justify** the model generated (and why you think this is a suitable model for your data).
 - The report should be no more than **12 pages in writing** (typed, based on Times New Roman, 12 type font, with double spaced lines), graphs and diagrams are not included in the page count.

Poster

- The poster is a compilation of the **important elements** from your written report and it should include the following:
 - A title
 - A section on **what** you will investigate in this task (your topic) and **why** you have chosen this topic
 - A section that **summarizes your findings**, explaining how your topic “changed” (whether it was a growth or decay)
 - Your **“model”** (the equation that will describe how your topic “grows” or “decays”)
 - Relevant **charts** and **graphs**
 - A section that discusses on **how** (and possibly why) the model you have created is **suitable for the data** you have obtained in relation to your topic.
 - The poster should be on an **A2 sized (or larger) paper/cardboard**, and all information should be on one side only

Time allocation:

You will have 9 lessons (about 2 weeks) to work on the task, and the suggested breakdown is as follows:

Lesson 1	Introduction of the task
Lesson 2 & 3	Research and decide the topic.
Lesson 4	Analysis the data with Excel, Geogebra or any other mathematical software.
Lesson 5-9	Working on the poster and report

Note:

- You will have to bring all the materials you need for the poster or the report (including the cardboard paper for the poster).
- It is suggested to download the most updated version of Geogebra from <http://www.geogebra.org/download> before lesson 4.