



MOUNT ANNAN HIGH SCHOOL

ASSESSMENT TASK NOTIFICATION

FACULTY	Science	COURSE	Science - Stage 6	YEAR	12
TASK NUMBER	1	TASK NAME	Data Analysis		
TASK WEIGHT	20%	MARKS AWARDED	35 marks		
DATE OF NOTIFICATION	Term 4, Week 5 (10 th November 2023)				
DUE DATE	Term 4, Week 7 (24 th November 2023)				

TASK DESCRIPTION / INSTRUCTIONS

Inquiry question: How can models that are used to explain projectile motion be used to analyse and make predictions?

PART A: Projectile Motion Simulation Analysis (15 Marks)

Students are required to perform a series of simulated experiments relating to projectile motion found at:

<http://www.physicsclassroom.com/Physics-Interactives/Vectors-and-Projectiles/Projectile-Simulator>

They will record the data from the simulations and answer questions pertaining to the data collected, prior to class on Friday 24th November 2023. They are required to hand in the data and its analysis during class on 24th November.

Part B: In Class Written Task (20 Marks)

The task involves secondary sourced information and data on projectiles being provided. Students will be asked questions linked to the outcomes of Processing Data, Analysing Data and Problem Solving in relation to the information on Projectiles presented in the task. No other resource is required or allowed for the task except for writing materials and a NESA approved calculator. Students will individually complete these questions in the classroom on **24th November 2022**.

Each question will have allocated marks displayed on the examination paper and the examination will be marked in accordance with a strict marking guideline and feedback will be given to students based on this marking criterion, after completion of the task.

TASK SUBMISSION INSTRUCTIONS

Students are required to complete Part A of the task and hand it in during Period 3 on **Friday 24th November 2023** (Term 4, Week 7). Part B of the task will be conducted in the classroom on **Friday 24th November**. Students will be required to complete the Data Analysis Task individually and submit it in class.



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OUTCOMES

Students will be demonstrating their understanding of the following outcomes from **Module 5- Advanced Mechanics**.

- **PH12-12** - describes and analyses qualitatively and quantitatively circular motion and motion in a gravitational field, in particular, the projectile motion of particles
- **PH12-4**
Selects and processes appropriate qualitative and quantitative data and information using a range of appropriate media.
- **PH12-5**
Analyses and evaluates primary and secondary data and information.
- **PH12-6**
Solves scientific problems using primary and secondary data, critical thinking skills and scientific processes.

FAILURE TO COMPLETE OR SUBMIT AN ASSESSMENT TASK

If you do not attend school on the Due Date of an Assessment Task to submit or complete the task in person you will be given a zero mark unless you comply with the following Assessment Guidelines:

- For Assessment Task completed at home – you must submit the assessment task before school on the next day you attend.
- For Assessment Tasks completed at school – you must report to the relevant Head Teacher before school the next day you attend and discuss when you will complete task missed or a substitute task.
- Complete a 'Misadventure Form' and provide relevant information and evidence to appeal the **zero mark** awarded. Other circumstances are outlined in the MAHS Assessment Booklet for the particular year. Evidence may include an in person medical certificate for illness or a letter outlining extenuating circumstances or other deemed reasonable reasons. An outcome of your 'Misadventure Form' will be provided by the Deputy Principal.

Students found guilty of **malpractice** which includes plagiarism will be awarded a **zero mark**. If a piece of work is incomplete at the time of submission, it should be submitted as is, and you will be given a mark on what has been completed.

As per our school Assessment Procedures outlined in the MAHS Assessment Booklet for the particular year, you must see your teacher and Head Teacher on the **first day you return** back to school. Please access our school website to access our assessment procedures for each year group and a 'misadventure form' - <https://mountannan-h.schools.nsw.gov.au/community/assessment-scedules.html>



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MARKING CRITERIA

Performance Descriptors	Marks/Grade
<p>Student can:</p> <ul style="list-style-type: none">• Demonstrate an extensive knowledge in understanding the characteristics of a projectile.• Accurately processes appropriate qualitative and quantitative data and information using a range of appropriate media.• Extensively analyse and evaluate secondary data and information.• Provide an extensive assessment of the validity and reliability of data collected in an investigation.• Solve scientific problems using primary and secondary data, critical thinking skills and scientific processes.	<p>A (29-35)</p>
<p>Student can:</p> <ul style="list-style-type: none">• Demonstrate a thorough knowledge in understanding the characteristics of a projectile.• Accurately processes appropriate qualitative and quantitative data and information using a range of appropriate media.• Thoroughly analyse and evaluate secondary data and information.• Provide a thorough assessment of the validity and reliability of data collected in an investigation.• Solve scientific problems using primary and secondary data, critical thinking skills and scientific processes.	<p>B (22-28)</p>
<p>Student can:</p> <ul style="list-style-type: none">• Demonstrate a sound knowledge in understanding the characteristics of a projectile.• Accurately processes appropriate qualitative and quantitative data and information using a range of appropriate media.• Provide a sound analysis and evaluation of secondary data and information.• Provide a sound assessment of the validity and reliability of data collected in an investigation.• Solve scientific problems using primary and secondary data, critical thinking skills and scientific processes.	<p>C (15-21)</p>
<p>Student can:</p> <ul style="list-style-type: none">• Demonstrate a basic knowledge in understanding the characteristics of a projectile.• Demonstrate a basic ability to process appropriate qualitative and quantitative data and information using a range of appropriate media.• Provide a basic analysis and evaluation of secondary data and information.• Provide a basic assessment of the validity and reliability of data collected in an investigation.• Demonstrate a basic ability to solve scientific problems using primary and secondary data, critical thinking skills and scientific processes.	<p>D (8-14)</p>



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Student can:

- Demonstrate limited knowledge in understanding the characteristics of a projectile.
- Demonstrates a limited ability to processes appropriate qualitative and quantitative data and information using a range of appropriate media.
- Provide limited analysis and evaluation of secondary data and information.
- Provide limited assessment of the validity and reliability of data collected in an investigation.
- Demonstrate a limited ability to solve scientific problems using primary and secondary data, critical thinking skills and scientific processes.

**E
(1-7)**

Non Attempt – Non Submission – Non Serious Attempt

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