| Name(s) of learner(s) |  |  |  |  |  | Grade | Project number |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PROJECT TITLE |  |  |  |  |  |  |  |
| I. Intro (10) | 2. Method (20) | 3. Results \& Discussion <br> (20) | 4. Limitations, Further research, Conclusion <br> (10) | 5. Originality, Creativity, value <br> (I0) | 6. Presentation (30) | Initial Score $(100)$ | Final Score after Discussion <br> (I00) |
| JUDGE'S NAME: CONVENER'S NAME: <br> SIGNATURE SIGNATURE |  |  |  |  |  |  |  |

SCORE: 0 or I or 2 for each of the items listed below:
$0=$ Not done/no evidence/incorrect
I = Average or $50 \%$ correct or partially achieved
$2=$ Very good or well done

## I. INTRODUCTION ( 10 marks)

| I.I | Literature Review/Background research is relevant and from adequate sources |  |
| :--- | :--- | :--- |
| I.2 | Literature Review/Background research is from credible sources |  |
| I.3 | Problem/issue/phenomena identified |  |
| I.4 | Purpose/Aim of the study is clear |  |
| I.5 | Hypothesis/Research Question correct and stated as a testable/falsifiable statement |  |
|  |  | TOTAL (I0) |

## 2. METHOD ( 20 marks)

| 2.1 | Variables (control/fixed, independent, dependent)/functions/mathematical relationships correct |  |  |  |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
| 2.2 | Method/data collection approach is appropriate for the study |  |  |  |  |
| 2.3 | Mathematical/logical concepts and principles/tools, resources and materials stated |  |  |  |  |
| 2.4 | Demonstrates significant understanding of the mathematical/logical processes and procedures |  |  |  |  |
| 2.5 | Appropriate mathematical/theoretical technique(s) used |  |  |  |  |
| 2.6 | Procedure executed accurately and thoroughly |  |  |  |  |
| 2.7 | Procedures documented in detail so study can be replicated |  |  |  |  |
| 2.8 | Demonstrates independent thinking, problem solving skills |  |  |  |  |
| 2.9 | Evidence of measures to collect accurate data and minimise errors |  |  |  |  |
| 2.10 | Correct use of data, proofs, arguments |  |  |  |  |
|  | TOTAL (20) |  |  |  |  |

## 3. RESULTS \& DISCUSSION ( $\mathbf{2 0}$ marks)

| 3.1 | Results shown in detail, accurate and logical |  |
| :--- | :--- | :--- |
| 3.2 | Results represented appropriately e.g. Equations, Notations, Tables, Diagrams, Graphs |  |
| 3.3 | Arguments easy to follow |  |
| 3.4 | Grasp and mastery of mathematical terminology, notations, theoretical concepts |  |
| 3.5 | All appropriate calculations are shown and are correct |  |
| 3.6 | Assumptions used correctly |  |
| 3.7 | Uses application of theorems/equations/theory correctly |  |
| 3.8 | Discussion is logical and deductions are correct |  |
| 3.9 | Discussion cites literature, compares findings to other studies |  |
| 3.10 | Significance/value of the results explained |  |
|  |  | TOTAL (20) |

## MATHEMATICS/ THEORETICAL PROJECTS

4. LIMITATIONS, FURTHER RESEARCH, CONCLUSION ( 10 marks)

| 4.1 | Limitations and errors stated |  |
| :--- | :--- | :--- |
| 4.2 | States how the study can be improved |  |
| 4.3 | Recommendations for further research made |  |
| 4.4 | Conclusions(s)/Summary of the findings stated |  |
| 4.5 | Hypothesis is accepted or rejected/Research Question answered |  |
|  |  | TOTAL (I0) |

## 5. ORIGINALITY, CREATIVITY AND VALUE (10 marks)

| 5.1 | No evidence of plagiarism of ideas, text, images |  |
| :--- | :--- | :--- |
| 5.2 | Knowledgeable about the field of study beyond the scope of the school curriculum |  |
| 5.3 | Study that: Finds a new solution to a problem OR Improves on an existing solution OR <br> Uses new methodology OR an improved method OR contributes to new knowledge |  |
| 5.4 | Demonstrates critical thinking/problem solving/logical reasoning |  |
| 5.5 | The work is original and informative |  |
|  | TOTAL (10) |  |

## 6. PRESENTATION (30 marks)

| Written |  |  |
| :--- | :--- | :--- |
| 6.1 | Research Plan written in third person, future tense |  |
| 6.2 | Journal/Data Book is present with data, notes |  |
| 6.3 | Abstract is concise, substantial, third person, past tense |  |
| 6.4 | Project Report has main sections: Introduction, Aim, Hypothesis/Research Question, Variables, <br> Method, Results, Discussion, Limitations, Conclusion, Further Research, References, <br> Acknowledgements |  |
| 6.5 | Project Report written with correct content under headings |  |
| 6.6 | Project Report AND Poster have correctly labelled Tables, Graphs, and Diagrams. Illustrations <br> and Photographs are correctly referenced and/or acknowledged |  |
| 6.7 | Poster has main sections: Introduction, Aim, Hypothesis, Variables, Method, Results, Discussion, <br> Limitations, Conclusion, Further Research, Acknowledgements |  |
| 6.8 | Poster is a logical summary of the Project Report |  |
| Interview |  |  |
| 6.9 | Shows in-depth understanding of mathematical concepts, principles/theories |  |
| 6.10 | Explains the method, techniques and solutions correctly and adequately |  |
| 6.11 | Explains the results/arguments correctly |  |
| 6.12 | Makes justifiable claims based on the research study |  |
| 6.13 | Explains relevance/impact/significance of the study | TOTAL (30) |

Please provide additional information (attach additional writing paper to this judging sheet, if necessary):
I. If this work was not done by the learner(s), and/or ideas, text, images were plagiarised, please explain and provide evidence of this.
2. What improvements can you recommend?
3. Who could mentor this project? Name and contact details
4. Other Comments

