|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Planning | Experiment | Title | Introduction | Materials and Equipment | Procedure | Results | Discussion | Conclusion | Further research | References | Acknowledgement | Total |
| 5 | 5 | 2 | 3 | 4 | 8 | 8 | 10 | 3 | (1) | 1 | 1 | 50 |

Notes on requirements for each category.  *(Note: Parts in italics below are from the text book and are the basis of the structure of the report- it is expected that they follow at least those)*

|  |  |  |
| --- | --- | --- |
| CATEGORY | DESCRIPTION | MARKS |
| Planning | Looking for: hypothesis, or Aim of experiment/ statement of what they are investigating; relevant equipment and materials; indication of how much of everything; number of test tubes etc; how they will record results; | 5 |
| Experiment | Correct use of equipment; following their plan; results recorded; working safely –safety glasses –minus a mark if they had to be reminded more than once to put glasses on; working cooperatively with group members | 5 |
|  |  |  |
| Report |  |  |
| Title | *And name of author or authors*  Title mentioning the enzyme and what was being investigated – pH, Temperature, or concentration : their name | 2 |
| Introduction | *Stating the nature of the problem and hypothesis tested.* A paragraph about enzymes and optimum conditions: how their factor fits in. Biological catalysts; factors which affect enzyme activity – concentration of enzyme; concentration of substrate; removal of product(s); temperature; pH; co-factors | 3 |
| Materials and Equipment | *List of apparatus used*; a list; number of things, volumes of beakers, name of chemicals; | 4 |
| Procedure | *Describing how the investigation was carried out*  In numbered steps; may include diagrams or flow charts; must include everything they did: can someone follow their method | 8 |
| Results | *Often include tables, graphs, diagrams or photographs:* Must have a table of results with correct headings and units; Identify controlled variables. | 8 |
| Discussion | *Includes comments about the results and how they relate to the hypothesis*:  Relevant explanation of any problems which occurred and how they were dealt with. Any change of Procedure should be explained. | 10 |
| Conclusion | *States whether the hypothesis is supported or disproved, and summarises what can be concluded*. Should be relatively brief – discussion holds more explanations. | 3 |
| Further Research | *Suggests areas for further investigation* – can include here, or with discussion – relate to results. | (1) |
| References | *Books, articles, websites or other resources that have been referred to in the report*.  At least their text book, or instruction sheet. | 1 |
| Acknowledgement | *Persons who have helped with the investigation or organisations that may have provided funds for the research. Their group, teacher, lab techs, other people – need to explain what they are acknowledging them for.* | 1 |
|  |  |  |
|  |  | 50 |