**Year 8 Biology Investigation**

To find out what happens to heart rate when you are mover active.

Heart rate=

Units of measure=

Planning

|  |  |
| --- | --- |
| Part | **Details** |
| Title |  |
| Aim | To compare a person’s heart rate when sitting and their heart rate after they have run on the spot for 5 minutes. |
| Introduction |  |
| Hypothesis |  |
| Independent Variable |  |
| Dependent Variable |  |
| Controlled Variables |  |
| Materials | Stop watch |
| Method |  |
| Results  Table |  |
| Graph |  |
| Discussion |  |
| Conclusion |  |
| References |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Part**  *These should form subheadings in your work* | **Details** | **Available**  **mark** | **Your**  **mark** |
| **Title** | Descriptive NOT Biology Investigation | 1 |  |
| **Aim** | Why are you doing this experiment? What do you want to find out? | 1 |  |
| **Introduction** | Background scientific information eg what are the functions of the circulatory and respiratory systems? | 2 |  |
| **Hypothesis** | Correctly worded  Includes dependent and independent variables | 2 |  |
| **Independent Variable** | The variable I change (I for independent). When you change the independent variable the variable you are measuring (the dependent variable) will probably change too. | 1 |  |
| **Dependent Variable** | The variable you are measuring. Any change in this variable depends on what you do to the independent variable. | 1 |  |
| **Controlled Variables** | All the things you keep the same to make it a fair test. You should usually list at least three. | 2 |  |
| **Materials** | Complete  Listed  Detail eg 25g of salt or 3 x 250ml beakers | 1 |  |
| **Method** | Step by step  Complete  Trials/replicates | 1  1  1 |  |
| **Results** | Table  Units given  Columns labelled  Rows labelled  Trials shown  Average given  Ruler used  Can be read easily | 1  1  1  1  1  1  1 |  |
| **Graph** | Heading  Ruler used  Independent on horizontal axis  Unit given  Only averages graphed  Data spread well on sheet  Axis labelled | 1  1  1  1  1  1  1 |  |
| **Discussion** | * Problems * Solutions | 4 |  |
| **Conclusion** | * What did the results show? Is there a trend * Does this support your hypothesis? | 1  1 |  |
| **References** | Reference given  Correct layout | 1  1 |  |
| **Total mark** | | **36** |  |