**Soundproofing Investigation marking key**

Student name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Your task is to design a box that will reduce the decibel level of a ringing alarm clock. Your solution must be inexpensive, cost less than $7 and be small enough to fit on a bed side table.

You must provide a method and cost sheet before experimenting.

|  |  |  |  |
| --- | --- | --- | --- |
| Aspect | content | Possible Score | Student mark |
| Introduction |  | 2 |  |
| Hypothesis | Scientific Hypothesis stated | 1 |  |
| Independent variable stated | Variable identified | 1 |  |
| Dependent variable | Variable identified | 1 |  |
| Controlled variable | 4 controlled variables identified | 2 |  |
| Method and Cost | Easy to follow and explicitly clear | 5 |  |
| Results  Raw data table | Data table produced | 4 |  |
| Graph of results | Suitable graph of results | 5 |  |
| conclusion | Must relate results to hypothesis. | 1 |  |
| Review | Questions completed | 1 |  |
| Total |  | 23 |  |

TOTAL FOR WHOLE TASK: /23 + /21 = /43

Review Questions:

1. What must people do if they work in loud environments? (2 marks)

2. Identify the health and safety laws in Western Australia. State how they are designed to protect workers from loud noises. (4 marks)

3. Describe the levels of noise danger and what must be worn to protect people from hearing loss. (6 marks)

4. Deafness can come in many forms. Identify 3 types of deafness and describe their treatments. One of these forms of deafness must be damage to the cochlea. (9 marks)