**The Effect of Surface Area on Absorption**

Let’s explore the effect of surface area on absorption by practising our science inquiry skills and developing our science report writing ability.

In this investigation you will compare fabrics with different surface areas and their ability to absorb water. You will relate your findings to the functioning of the small intestine.   
  
A close up of a carpet

Description automatically generated A close up of a white carpet

Description automatically generated A close up of a cloth

Description automatically generated

**Introduction**

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| Surface area is defined as |
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| Absorption is defined as |
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| Previous research by scientists have found |
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| The aim of this experiment is to examine the effect of |
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| The independent variable was |
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| The dependent variable was |
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| It was hypothesised that |
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**Materials**

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| * 10 x 10cm fabric with low surface area * 10 x 10cm fabric with moderate surface area | * 10 x 10cm fabric with high surface area * Bucket of water | * 1L measuring cylinder |

**Method**

* Write procedure using paragraphs
* Step by step
* Use past tense
* No personal language

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| The low surface area fabric was soaked in water. The water-soaked fabric was then |
| transferred to a measuring cylinder and absorbed water was ringed into the cylinder. |
| The volume of water was measured and recorded. |
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| Next |
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**Results**

* Add your data to Trial 1
* Collect data from 2 other groups. Record these in Trial 2 and 3.
* Calculate an average.
* Create a title for your table.

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| **Surface Area** | **Volume of Water Absorbed (mL)** | | | |
| **Trial 1** | **Trail 2** | **Trail 3** | **Average** |
| Low |  |  |  |  |
| Medium |  |  |  |  |
| High |  |  |  |  |

Table 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Create a graph of your results:

Graph 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| The result show that |
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**Discussion**

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| In this experiment, it was hypothesised that |
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| The data **(supports / rejects)** this hypothesis. |
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| One problem that may have affected to data is |
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| A way to fix this problem if this experiment was conducted again is |
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**Conclusion**

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| In conclusion, this experiment |
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**PERSONAL LEARNING REFLECTION**

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| One thing I have learnt from doing this activity is… |