Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_ Hour \_\_\_\_\_\_ Sub: Science

**Inquiry Report : \_\_\_Permeability of Sediments\_\_\_\_\_\_\_**

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| --- |
| **Problem/Question**: (What you are investigating)Does the particle size of sediment affect how easily water flows through? |
| **Prior Knowledge**: (What you already know about the question and the topics involved) |
| **Hypothesis**: (If….then…. & why)If sediments have a larger particle size, then…I think this because… |
| **Independent Variable**: (What is changing) |
| **Dependent Variable**: (The result of your changes) |
| **Control**: (Not exposed to the independent variable – A test without the change) |
| **Materials**: (Include amounts and be specific) |
| **Procedure**: (Step by step instructions) |
| **Analysis of Data**: (Patterns and trends in data. What your data tells you. Include graphs.)Quantitative Observations:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sediment | Trial 1Volume of Water (mL) | Trial 2Volume of Water (mL) | Trial 3Volume of Water (mL) | AverageVolume of Water (mL) |
| gravel |  |  |  |  |
| sand |  |  |  |  |
| silt |  |  |  |  |
| clay |  |  |  |  |
| control |  |  |  |  |

Qualitative Observations:

|  |  |
| --- | --- |
| Sediment | Observations |
| gravel |  |
| sand |  |
| silt |  |
| clay |  |
| control |  |

**What does your data and graph tell you?** |
| **Conclusion**: - **Hypothesis is evaluated according to data** (Include your hypothesis. Tell whether or not your hypothesis is correct/incorrect according to your data.)My hypothesis stated, if\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_It was correct/incorrect (circle one) because my data shows\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**- Reasons to accept/reject hypothesis** (Use your background knowledge to explain why your data turned out the way it did.)I know my hypothesis was correct/incorrect (circle one), because \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**Applications and Recommendations for Further Use**: **- Explain reasons you may have errors in your experiment.** (What could have gone wrong that made your data incorrect? If you don’t think anything went wrong, explain why.)- **Explain one way to improve this experiment**. (What other procedures, materials or tools could you have used to make your experiment perform better?)- **State a testable question for future experiments.** (What question would you like to test if able to do a similar experiment?) |