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 1  Volume of Water (mL) | Trial 2  Volume of Water (mL) | Trial 3  Volume of Water (mL) | Average  Volume 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?) |