

Student Investigation Sheet

Discovery Education Science



Background Information:

Water Power

In this activity, you and your group will use plastic containers and a graduated cylinder to test the effects of erosion by water and gravity. You will use a digital camera or a video camera to record your procedures and observations.

Materials List:

- four plastic containers
- laboratory aprons
- chemical splash goggles
- sand (enough to half-fill the containers)
- a beaker
- a graduated cylinder
- tap water
- a meter stick or metric ruler
- a metric tape measure
- funnel
- science notebooks
- digital camera or video camera

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Key Question

| | |
|---|---|
| What was the question that you want to answer? | <i>Directions:</i> Write the question for the investigation. The question should be specific and be able to be investigated. |
| | <u>Key Components</u> <ul style="list-style-type: none">• Specific (one general thought, does not combine two or more questions)• Is able to be investigated |

Hypothesis

| | |
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| Claim that answers your question based on the evidence | <i>Directions:</i> Develop a claim about what you think is going to happen. |
| | <u>Key Components</u> <ul style="list-style-type: none">• Expresses a cause and effect relationship• Is testable• Incorporates prior knowledge |

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Plan

| How Will You Investigate the Question? | <i>Directions:</i> Describe the plan that you will use to study your question and analyze your hypothesis. |
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| | <p><u>Key Components</u></p> <ul style="list-style-type: none">• Plan is easily repeatable by others• Plan describes the use of materials• Plan is in a logical order |



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Data

| Evidence from this investigation | <i>Directions:</i> Record all of the evidence that has been collected. Evidence can be any data that helps answer the question appropriately and completely. The focus of this section is on what was found during the investigation. |
|----------------------------------|---|
| | <p><i>Key Components</i></p> <ul style="list-style-type: none">• Data (from an investigation and/or other sources, such as observations, reading material, archived data, etc.)• Appropriate (data applies directly to the question)• Sufficient (uses enough data to completely answer the question and determine a finding on the hypothesis) |



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Conclusion

| Summarize Your Findings | |
|-------------------------|---|
| | <p><i>Directions:</i> Develop a conclusion for your investigation. The conclusion should contain clear thoughts and vocabulary that has been studied. This section focuses on the answer to the question and either proving or refuting the hypothesis. This should be done by linking the hypothesis to the data using logical reasoning.</p> <p><u>Key Components</u></p> <ul style="list-style-type: none">• Use precise and accurate language• Use scientific vocabulary• Provide clear logical thoughts• Use evidence and reasoning to support or refute the hypothesis |

