Stream Table Investigation

Name:_____

Directions: Look closely at the two pictures below. How are they different? Both landforms resulted from the erosion of earth materials by running water. Discuss with a partner what factors might have caused the differences you observe.

A valley	A canyon
	

Focus Question: What variables affect the erosion of earth materials in a stream table?

Variables we think might affect the erosion of earth materials (e.m.) in a stream table. Explain your thinking.

1._____

2._____

3._____

4._____

5. _____

Stream Table Investigation

QUESTION: If we change the stream table *elevation* or *amount of water*, what
(Circle one of the above variables)

will happen to _____?

Experimental Set-Up

You may select 3 values from the list below. Determine the values of your changing variable and write the values for your three trials.

1. Stream Table Elevation Values: ½ in., 1 in., 1½in., 2 in., 2½, 3 in.
   Water Quantity – 100 mL for all values

2. Water Quantity Values: 100 mL, 200 mL, 300 mL, 400 mL, 500 mL, 600 mL
   Elevation – ¼" for all values

Changing Variable:	Trial A	Trial B	Trial C
What you circled above			

Controls: Variables that will not be changed

_____/_____

_____/_____

_____/_____

_____/_____

Stream Table Investigation

Prediction: We predict the earth material will move the farthest in Trial __

because _____

Investigation Procedure:

1._____

_____

2._____

_____

3._____

_____

4._____

_____

5._____

_____

Stream Table Investigation

Results Data:

Stream Table Observations:

Changing Variable: _____

Trial A: Changing Variable Value _____
Trial B: Changing Variable Value _____
Trial C: Changing Variable Value _____

Stream Table Investigation

Results Data:

Distance the Earth Materials Moved (cm)

	Trial A	Trial B	Trial C
_____ Changing Variable			
Distance Moved (cm)			

Conclusion: (A claim supported by data)

The result of the experiment shows _____
Claim

_____

_____

because_____
Data (measurement/observation)

_____

_____

_____

Stream Table Investigation

Discussion Questions:

1. What effect did the water amount have on erosion? Why?

2. What effect did the steeper slope have on erosion? Why?

3. How do erosion factors affect landforms?

Refer back to the **canyon and valley** landform pictures. Based upon your investigation, predict which of these 2 landforms would most likely result.

a. A stream running down a small, low-sloped hill over time will likely cause a _____.

Explain your reasoning.

_____

_____

_____

_____

b. A stream running down a tall, steep mountain overtime will likely cause a _____ .

Explain your reasoning.

_____

_____

_____

_____

_____