



How will varying the stream gradient change the water velocity?

What effect will the gradient have on the river shape over time?

## Slide 6

**Experiment Procedure: (Make a plan.) Number your steps, and use complete sentences!**

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



# Erosion & Deposition by Rivers Virtual Lab

## Slide 7

Test the gradient using the river model. Record your observations in this table, not on the computer version. You may need to click on the Water velocity gauge to see the speed. ***When you finish, type one letter in each box of the online table so it will allow you to continue to slide 8.***

Stream Gradient	Water Velocity (m/s)	Drawing of Final Channel Shape
Gentle		
Moderate		
Steep		

## Slide 8

### Conclusions:

What effect did the stream gradient have on water velocity? \_\_\_\_\_

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What effect did the stream gradient have on the channel shape over time? \_\_\_\_\_

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# Erosion & Deposition by Rivers Virtual Lab

## Slide 9

### Publish:

How does your conclusion compare to how scientists explain this?

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PART 2!

## Slides 10 -12

### Observations:

What effect did the amount of vegetation have on stream bank erosion? \_\_\_\_\_

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What effect did the amount of vegetation have on the channel shape over time? \_\_\_\_\_

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### Conclusions:

How does increased vegetation along the riverbanks affect the development of the river channel? (Circle your answer.)

- Vegetation reduces the rate at which the river channel gets curvier.
- Vegetation has no effect at all.
- Vegetation increases the rate at which the river channel gets wider.

### Additional information:

Drop structures and erosion: (Circle all of the true statements.)

- A drop structure reduces the slope of a river channel.
- A drop structure is used to reduce the erosion of the channel.
- Erosion is greater in a river with drop structures.
- Water moves more quickly through a river with drop structures.