

Checkout Questions**Lab 8. Surface Erosion by Wind: Why Do Changes in Wind Speed, Wind Duration, and Soil Moisture Affect the Amount of Soil That Will Be Lost Due to Wind Erosion?**

1. A scientist has a collection of soil samples, each classified as shown in the table below.

Sample	Sample classification	Soil moisture (% water by volume)
A	Loamy sand	19
B	Silty clay loam	25
C	Silt loam	10
D	Silty clay loam	15

- a. If exposed to the same wind speed for an equal duration of time, which soil will likely lose the greatest mass to wind erosion?
- b. How do you know? Explain using an example from your investigation about the factors affecting soil loss due to wind erosion.

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c. If exposed to the same wind speed for an equal duration of time, which soil will likely lose the least mass to wind erosion?

d. How do you know? Explain using an example from your investigation about the factors affecting soil loss due to wind erosion.

2. Given what you know about surface erosion and using examples from your investigation, what are some steps that scientists and engineers can take to help prevent soil erosion in the following areas?

a. A mountain range

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b. A park in your local community

c. Near the ocean or a lake

3. Scientists use experiments to test the validity of a hypothesis (i.e., a tentative explanation) for an observed phenomenon.

a. I agree with this statement.

b. I disagree with this statement.

Explain your answer, using an example from your investigation about the factors affecting soil loss due to wind erosion.

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4. In science, there is a difference between data and evidence.
 - a. I agree with this statement.
 - b. I disagree with this statement.

Explain your answer, using an example from your investigation about the factors affecting soil loss due to wind erosion.

5. In nature, events can occur at varying scales of size and of time. Why is it important to consider the differences in size and scale during an investigation? Give an example of a relatively small effect of wind erosion and a relatively large effect of wind erosion.

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6. In science, it is important to understand what factors influence rates of change in system. Explain why this is so important, using an example from your investigation about the factors affecting soil loss due to wind erosion.