

KEY

Let it Blow!

Wind Erosion in the Chihuahuan Desert

Answer the following questions based on the video “Let it Blow: Wind Erosion in the Chihuahuan Desert” and your experimental results.

1. Describe what is wind erosion and one example of why controlling wind erosion is important.

What is wind erosion? Soil being worn away and moved from one place to another by wind. Why controlling wind erosion is important? Three reasons were listed in the video – loss of soil nutrients affects plant health, dust storms can be dangerous to humans, and dust in the air causes breathing problems for people.

2. My dust collector collected _____ dust pieces in the _____ trial. Record your experimental results in the table below. If you have multiple trials for your engineering solution include this data in Trial 2 – Trail 4.

Answers will vary. Expected results include fewer dust pieces collected in the grassland and shrubland trials compared to the human-cleared ground trial. Successful student engineering designs should collect fewer dust pieces compared to the human-cleared ground trial.

Experimental Set Up	Number of Dust Pieces Collected
Grassland Desert Trial	
Shrubland Desert Trial	
Human-Cleared Ground Trial	
My Engineering Design Solution Trial 1	
Trial 2	
Trial 3	
Trial 4	

3. Which trial collected the most dust? The grassland, shrubland, or human-cleared ground trial?

Answers may vary. The human-cleared ground trial is expected to collect the most dust pieces.

Answer the following questions based on your engineering design solution for reducing dust created by wind erosion.

4. In the space below, give a brief description and provide a drawing of your engineering design solution. Include any modifications you made to reduce the number of dust pieces collected.

Accept most designs. Students should provide a description and a drawing of their design. The video directs students to use a design that models something in the real world.

5. What does your engineering design solution represent or model in the real world?

Accept all reasonable answers.

6. How many fewer paper pieces were collected in your successful design than your human-cleared ground trial?

Answers will vary but the student's design should collect fewer paper pieces compared to human-cleared ground trail.