

Soils Investigation: How does soil erosion differ on bare and grassed paddocks?

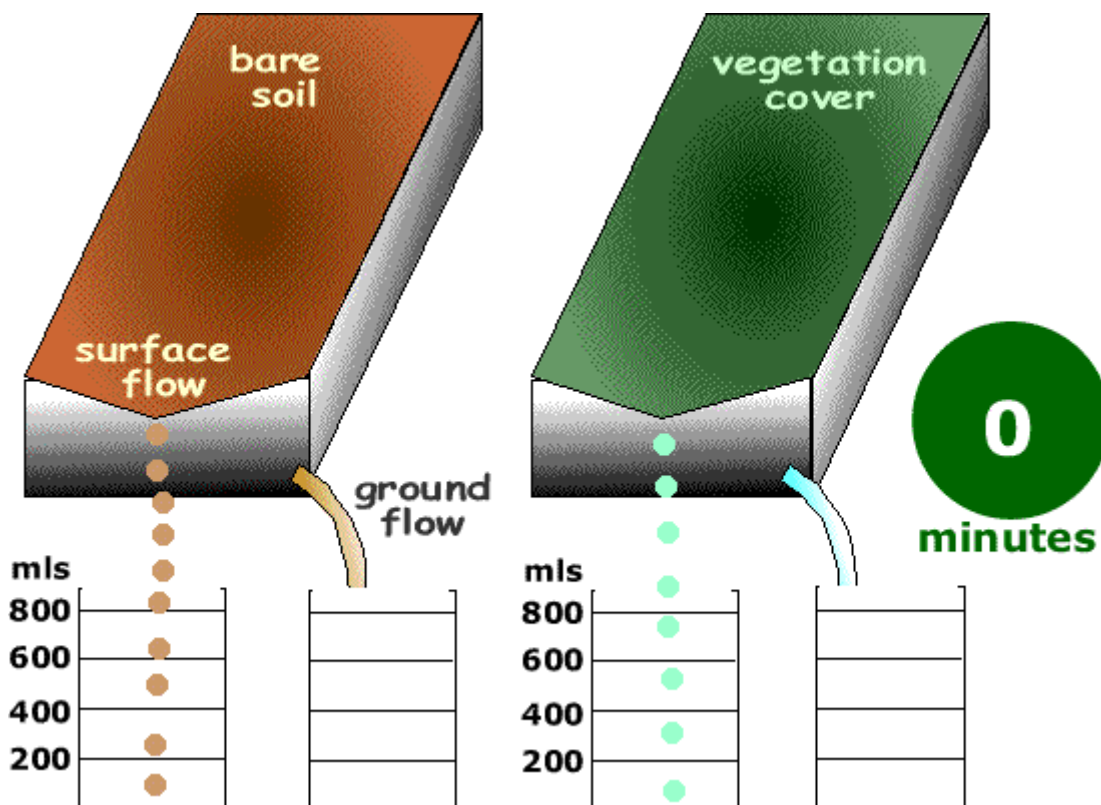
1. I am going to investigate.

Does bare soil erode more than soil protected by grass when it rains?

2. What I think will happen.

3. Why I think it will happen.

4. What I am going to do?



- Prepare two trays of soil, one will be bare, the other will be covered by grass.
- Water each plot with 2 litres of water from a watering can.
- Measure the amount of water that runs off the surface and that which becomes groundwater.
- Compare how muddy the surface runoff water is for each plot. This will indicate the amount of soil erosion.
- Repeat the experiment three times and calculate the average amounts.

5. What I will need.

- Two trays of soil placed on a slope of 15 degrees.
- Each tray will have a lip at the bottom end to control the runoff water and a pipe at the base to collect the groundwater.

- Watering can.
- Measuring jug
- Two ice cream containers to capture the runoff water.
- A turbidity tube to measure how muddy the water is.
- Record the measurements in a table.

6. How I will make it a fair test?

7. What happened?

Water	Bare Soil	Grassed Soil
Surface Flow (mls)		
Groundwater Flow (mls)		

Turbidity (muddiness of water)	Bare Soil	Grassed Soil
Surface Flow (ntu)		
Groundwater Flow (ntu)		

8. Was this what I expected?

9. Why did it happen?

10. What was difficult for me?

11. How could I improve this investigation?

12. How can I apply this knowledge?