

Erosion Prevention

What to Do

Goal: To design, build and test an erosion prevention system that will prevent soil erosion when 1 L of water is poured onto your mud mountain.

- 1** Discuss with your group how you might prevent soil erosion on your mud mountain.
- 2** In your **Investigation File, Soils and Erosion, Activity 9, Erosion Prevention** write a list of your group's ideas of how to prevent erosion on your mud mountain.
- 3** Collect your landscape box from **Activity 1, Building a Landscape Box**.
- 4** Build a mud mountain in the centre of your box.
- 5** Investigate how effective your ideas are. Decide on one method.
- 6** Record your chosen plan in your **Investigation File**, and demonstrate it to your class using 1 L of water.

Engineers have designed many special materials that can be used to prevent erosion.

Mulching (straw, wood chips, wood fiber blanket, etc.) is commonly used by park services to protect soil from being eroded by rainfall.

Erosion Prevention

Activity Explanation

Students design, build, test, and evaluate methods of preventing soil erosion.

Instructions

Before the Activity

Collect suitable materials that students could use for erosion prevention: stones, model trees, leaves, cloth, mesh, model building bricks, etc. Provide sufficient quantities for each group to freely investigate all possibilities.

During the Activity

Prior to the investigation, allow time for the groups to discuss their ideas of how to prevent erosion. If necessary, allow access to research materials. Suggest they look back over other activities in this topic for ideas.

For the first part of the investigation, allow students to experiment with their possible methods.

Ask students to choose one method, and build that on their mud mountain ready for the class demonstrations.

After the Activity

Have each group demonstrate their chosen method of erosion prevention by pouring 1 L of water on the top of their mud mountain. Prompt students to observe and compare the relative soil erosion for each groups' solutions.

Safety

Clean up any water spills immediately to prevent accidents caused by slipping. Wash hands after handling the soil.

Materials Required

From Kit

From School

For each group:

Landscape box and card (see Activity 1)

Range of construction materials: pebbles,
model trees, leaves, cloth, mesh, model
building bricks, etc.

Erosion Prevention

Goal: To design, build and test an erosion prevention system that will prevent soil erosion when 1 L of water is poured onto your mud mountain.

Write a list of your group's ideas of how to prevent erosion on your mud mountain.

What was the one method that you chose to use?

How does your method work to prevent soil erosion?

Erosion Prevention

Goal: To design, build and test an erosion prevention system that will prevent soil erosion when 1 L of water is poured onto your mud mountain.

Write a list of your group's ideas of how to prevent erosion on your mud mountain.

Answers may vary. Examples: adding pebbles, plant vegetation, build walls, change the slope (terracing), cover with mesh or cloth

What was the one method that you chose to use?

Answers will vary

How does your method work to prevent soil erosion?

Answers will vary; students should use vocabulary such as slope, speed, erosion, prevention, diversion, etc.

If you have any questions about the Deeper and Deeper instructional resource do not hesitate to call us at the...

Prospectors and Developers
Association of Canada
Mining Matters Hotline
416-863-6463

Don't forget to let us know how you are doing at,
PDAC Mining Matters
904-1200 Eglinton Avenue East
Toronto, ON
M3C 1H9
Email: schoolprograms@miningmatters.ca
MiningMatters.ca

