

EROSION

Overview and objective:

Students will learn about **erosion** and the need for **erosion control**

Erosion control is the practice of preventing or controlling wind or water [erosion](#) in [agriculture](#), [land development](#), [coastal areas](#), [river banks](#) and [construction](#). Effective erosion controls are important techniques in preventing [water pollution](#), [soil](#) loss, wildlife [habitat loss](#) and human [property](#) loss.

Source: Wikipedia.org/erosion_control

WHAT YOU WILL NEED:

- Three flat sided juice containers (so each will lay flat on a countertop when on their side)
- Soil
- Mulch
- Sod or grass grown from seed
- Containers to collect water overflow
- A pitcher
- A knife (please ask an adult to do this!)
- Safety goggles

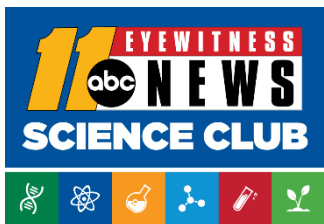
Procedure:

Set up three containers of soil to test the impact that vegetation or other physical barriers has on protection of the land.

If you're planning this project for a science fair, plant seed and give it 3-4 weeks to really give the roots an opportunity to grow into your soil. You can also lay sod. Again, the more time you give this (1-2 weeks), it will provide a better result for your experiment. From the underside of the container, you should be able to see the roots wrap around and hold that soil in place.

1. Collect three juice containers. Opt for containers that have flat sides that will lay on a countertop without tipping.
2. Have an adult cut off the top of each container (above the pour spout), as shown.



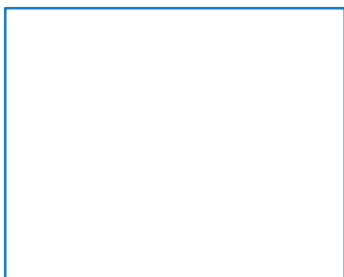


Presented by



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Procedure Continued:

3. Place each container on its side and fill with soil just below the spout.
4. The first container, you will leave just the bare soil.
5. Add mulch to the second container.
6. Your third container will contain the grass/sod you've grown.
7. Put a box (we covered a rubber tote) on the counter and lay your three soil filled containers on top.
8. Put three containers or catch basins below to capture the run off. (we cut the tops off the water bottles we used while filming *supercooling*)
9. Using your pitcher, pour water evenly across each of your containers of soil.
10. Document your results.

Discussion:

- *What does the run-off water look like in your catch basin?*
- *Which is cleanest and why?*
- *What impact, if any, does the mulch and grass have on your water run-off?*
- *What impact does erosion have on the land?*
- *What types of erosion control do you see in your daily trip to school?*
- *Try this experiment using other types of erosion control and share it with us.*

Visit us on www.Facebook.com/abc11scienceclub and share the video or picture of your **EROSION PROJECT**.

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