

Topic: Soil

Dirt Discovery

<http://lifestyle.howstuffworks.com/crafts/other-arts-crafts/science-projects-for-kids-soil-experiments1.htm>

A science experiment to help us learn about soil composition

You will need:

- Waterproof table covering
- Jar with lid
- Spoon
- Dirt
- Pitcher of water
- Paper towels
- Magnifying glass

How to Conduct the Dirt Discovery Science Project:

Step 1: Cover your work surface. Fill a jar halfway with dirt. Add water nearly to the top of the jar. Put the lid on, and tighten it securely.

Step 2: Shake the jar vigorously for a half a minute, and then set it down. Let the jar stand until the dirt and water settle. The soil will settle into layers.

Step 3: Observe the layers in the jar, and see what you can tell about them. How many layers are there? Which layer is made of the biggest particles? Which is made of the smallest? Can you guess why?

Step 4: To further examine the different layers and what they are made of, you can sort out the soil materials and examine them. Use a spoon to skim off the objects floating in the water. Place them on a paper towel.

Step 5: Then carefully pour off the water on the top and scoop out the grains of the next level onto another paper towel. Do the same if there is another level.

Step 6: After each layer has been placed onto towels, they can be examined with the magnifying glass. What else can you tell about the different layers after further examination?

Step 7: You can also do this experiment with dirt you have collected from different areas and compare your findings. Draw pictures of each jar full of soil after you have shaken it and the dirt has settled to make picture comparisons.

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Lowdown on Dirt

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The Lowdown on Dirt is a science project that teaches us about soil quality. When it comes to supporting plant life, not all dirt is equal.

You will need:

- Garden soil
- Trowel
- Small flowerpots with saucers
- Water
- Bean seeds
- Tall stakes
- Pencil or pen
- Ruler
- Paper (graph paper optional)
- Tape

How to conduct the experiment

Step 1: Look in your yard for areas where plants grow poorly. Is the soil trampled and hard? Is the soil soft and loose where plants grow well? Look for sandy or heavy, clay-like soil.

Step 2: Gather samples of different soils and fill a flowerpot with each kind. Label your flowerpots: "Hard, baked soil near the sidewalk," "Loose, fluffy soil from the flower bed," etc.

Step 3: Water the pots, and then plant two or three bean seeds in each. Put a stake in each pot for the beans to climb. Keep the pots moist (but not soggy) while the beans sprout.

Step 4: Notice which beans sprout first. Measure the height of the plants every few days until the beans flower. Keep a chart. Which soil was the best?