

Magical Mud



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Have you ever really thought about mud? There it is on the bottom of our shoes, squishing below our feet under water, and appearing like magic after heavy rain. It's definitely fun to play with, and it definitely is very messy – but have you wondered what it really is or if there is more than one kind of mud?

Mud is described in the dictionary as a sticky and soft matter that results from a mixture of earth and water. Rocks, minerals, soil, clay, leaves, sand, and other different ingredients make up what we call the earth. When you have gone outside after a heavy rainfall, have you noticed the ground get softer and stickier? That's a layer of mud!

English: *Mud*

French: *Boue*

Ojibwe: *Azhashki*

Activity 1. What is in Your Mud?

Materials: Mason jars or other glass jars, water, shovel or trowel, a soil sample

Although it can be very challenging to see in its natural state, mud is actually made up of lots of different things. Even the earth or dirt it is made from can vary in size and colour quite a bit. Mud on one side of your backyard could be completely different from mud on another side. Let's find out just how different!

1. Find a place to take a soil sample, you might need to ask permission if you're looking in a garden!
2. Use your shovel or trowel to fill your jar about half full with soil.
3. Take a few more samples from other spots in your yard. It is a good idea to label the jars!
4. Once you have a few samples, fill the jars to the top with water and secure the lids.
5. Shake the jars well. Shake and sing your favourite short song! Then put the jars somewhere safe where they won't be disturbed, and allow your sample time to settle.

Take a look every hour or two to see the slow changes. Heavy bits like stones will be at the bottom. Lighter materials like silt or sand take longer to sink and will form layers. Even lighter material like clay will stay suspended in the water for a long time. Sticks and leaves might not sink at all! Compare all your soil samples and record in your Nature Notebook how different they look!



Photo credit: My New Kentucky Home

Activity 2. Make Magic Mud

Materials: 3 tablespoons of water, 3 tablespoons of cornstarch, a plate

Not quite ready to get your hands dirty? This type of mud cannot be found outside, but makes for great fun! Magic mud is a simple science experiment that you probably already have the ingredients to make!

On a plate, simply combine the cornstarch and water and mix together with your hands.

Cornstarch and water when mixed together act a lot like *quicksand*, meaning it acts like both a solid AND a liquid. When you pick up your magic mud and hold it tight in your fist, the cornstarch particles stick together like a solid. When you let go, the particles act more like liquid and it falls apart in your hand like water! If you were standing on quicksand, you wouldn't want to stand completely still because you would sink, but you could run quickly across it. Magic mud works in the same way, enjoy!

Bonus: Mud Slime. Add regular white glue to your magic mud. You will know your slime is ready when you add glue and it doesn't fall apart like the like magic mud does. It should feel gooey, like play dough. Add food colouring or glitter to make your slime your own!

Fun Facts About Mud

1. Through history, people have used mud to build their homes! Bricks were made from mixing mud and straw and baking them in the sun.
2. Mud is used to completely build or support all kinds of animal homes, from burrows to nests and more!
3. Many animals, such as pigs and elephants, will bath in mud to stay cool.
4. Mud has medicinal uses and is commonly applied to insect stings while outside.
5. International Mud Day is June 29th.

Activity 3. Art From Mud

Materials: Modeling clay

Did you know that people have been making beautiful art from mud for thousands of years? We know this type of art as pottery! Pottery is made from wet clay, and we know that wet clay is actually a type of mud!

Use modeling clay and imagination to create your own mud art! If you're not ready to let it dry, be sure to put it in an air tight container.

