

Experiment with "Quicksand"

What do you think of when you think of quicksand? Most likely, you'll conjure up images of action heroes struggling to get out of a slippery pit of sand. The hero usually needs a sidekick to help him out—the quicksand is too sticky and dangerous to just swim away.

Quicksand has a unique texture that makes it particularly tricky to escape. Comprised of sand floating on top of water, it is both a solid and a liquid. People and animals can get trapped in the substance easily, as it's impossible to stand or swim in. Quicksand is created when water rushes into sand quickly, as in a flood, underground spring, or earthquake, and usually happens near riverbeds.

Your child will learn about the unique liquid and solid properties of quicksand (in a safe way!) in this hands-on experiment.

What You Need:

- One box cornstarch
- One large mixing bowl
- Bottle or pitcher of water
- Spoon
- Gallon size zip-top bag
- Small toy dinosaur, person, or animal

What You Do:

1. Mix $\frac{1}{4}$ of the box of cornstarch with $\frac{1}{2}$ a cup of water. Stir together, or mix with bare hands.
2. Add cornstarch and water a few spoonfuls at a time until your mixture reaches the consistency of honey. The end result may contain the whole box of cornstarch and one to two cups of water.
3. Have your child dip his hands in the newly created 'quicksand.' Ask him to move his hands around slowly, then quickly. Some questions to ask here: "How does it feel to move your hands fast and slow?" and "Is it harder to move your hands quickly?"
4. Now it's time to get 'trapped' in quicksand! Have your child dip her whole hand into the quicksand and then try to pull it out.
5. Lastly, your child can take a small toy and place it on the quicksand. Let it sink momentarily, then try to pull it out. Discuss how this feels in comparison with pulling your hand out of the mixture.

Once your child gotten some practice playing with the substance, see if you can make guesses about the best way to escape quicksand. Your child might make the connection that moving quickly, while the most natural movement, will actually get you stuck in quicksand! Interestingly, the best way to escape from quicksand is actually to float on your back and slowly paddle to firmer ground. Hopefully your child will never need to use this lesson, but he will have discovered new things about solid and liquid states of matter!

CAUTION: Make sure not to put the 'quicksand' substance down the drain! Instead, pour it into a zip-top bag and throw it in the trash.

