

MAKE YOUR OOBLECK LESSON EVEN BETTER

Big Idea

Oobleck is an awesome activity that can take multiple lessons to do and discuss. Besides being fun for students to get their hands dirty and squeeze and hold and play with Oobleck, it also raises some interesting questions: under what conditions does it feel like a solid? Under what conditions does it feel like a liquid? Thus, should Oobleck be considered a solid or liquid?

But, what do you do after playing with Oobleck, after taking observations and answering questions?

How about connecting it to a story about the longest running laboratory experiment because here at REAL Science Challenge, we're all about science, stories, and design thinking.

Instructions

I connect it to a real science experiment - actually, the longest running science laboratory experiment in the world. It's called the Pitch Drop Experiment and for the experiment, pitch was put in a glass funnel and allowed to slowly drip out. Since the pitch was allowed to start dripping in 1930, only nine drops have fallen. The eighth drop fell on 28 November 2000, and the ninth drop fell on 17 April 2014.

Have your students answer the following questions:

1. Pitch appears solid at room temperature and it can be shattered when struck - but is it a solid if it can flow? But,...
2. If only 9 drops have formed since 1930, can it still be considered a liquid - especially since it flows so slowly?
3. Thus, what's considered a solid or liquid? Can it change? And, what's happening at the molecular level to produce this change?