



# Viscosity Marble Drop

*Are all liquids the same? This easy STEM experiment lets you "see" viscosity in action! Performed by Ovirtiv at Kids Crüe Houston*

## Overview & Purpose

Have you ever noticed how not all liquids are the same? Of course, you've noticed liquids have different colors, but did you know that liquid flows differently than others? There is a way to measure a liquid's "viscosity", or the liquid's resistance to flowing. Viscosity is a measure of how "thick" a liquid is. HIGH viscosity liquids, such as honey and syrup, flow SLOW. On the other hand, LOW viscosity liquids, such as water and vegetable oil, flow FAST! We will be measuring how "thick" the liquid is by observing how fast a marble sinks through various liquids we can find around the house. Let's get started!

Reminder:

HIGH viscosity -> pours SLOW (syrup)

LOW viscosity -> pours FAST (water)

## Ingredients

- 4 clear glasses of equal size
- 4 marbles
- Water (enough to fill a glass)
- Honey (enough to fill a glass)
- Corn syrup (enough to fill a glass)
- Cooking oil (enough to fill a glass)

## Get started

1. Fill each glass with one of the liquids. Try to fill them to the same level as close as possible.
2. Drop a marble in each glass to observe how slow or fast the marble sinks in the liquid. Get creative here, what do you observe? Can you rank the liquids from lowest to highest viscosity? Have a marble race and drop them at the same time.

## Questions:

- Why do you think certain liquids have more viscosity than others?
- Can you think of other liquids that have high and low viscosity?
- Where else can you observe high viscosity liquids outside of your home?

