



OOBLECK RECIPE

Materials:

- 1 Cup of Water
- 1 $\frac{1}{2}$ to 2 Cups of Cornstarch
- Mixing bowl
- Food Color -optional
 - Easy - add food coloring to water before mixing
 - Challenge - add food coloring to final mixture

Recipe:

1. Start with the water in a bowl.
2. Add the corn starch to water. Use a spoon at first, but pretty soon you'll move on to using your hand to stir it up.
 - a. When you're getting close to adding 1.5 cups of the corn starch, start adding it in slower and mixing it in with your hand. The goal is to get a consistency where the Oobleck reaches a state that when you squeeze it in your fist, it feels like a solid at first, then runs through your fingers.
 - b. Sometimes you will need more cornstarch. If so, keep adding more than the initial 1.5 cups. If you add too much, just add some water back into it. You will have to explore with it to see what feels appropriately weird.

Now it's time for a fun and messy exploration!

Go ahead and play with the Oobleck. What can you discover as you explore?

Here are a few things you can try:

- Grab a handful, squeeze it, and let it ooze out your fingers.
- Make a puddle and quickly drag your fingers through it.
- Put it into a plastic container and shake it or quickly bump it against a table.
- Jab at the Oobleck and then slowly let your finger sink in.
- Put it on top of a subwoofer and play some low frequencies at high volume (tough to set up, but worth it)

Have fun and be sure to wash it all off in the end.

Resources:

- For a more detailed at home exploration, here is a full lesson with background description, questions, and extensions. <https://www.scientificamerican.com/article/oobleck-bring-science-home/>
- Non Newtonian Fluid Wikipedia link https://en.wikipedia.org/wiki/Non-Newtonian_fluid