

MAKE A NON-NEWTONIAN LIQUID

PHENOMENON:

The molecules in all states of matter (solid, liquid, and gas) behave differently, which changes the physical properties.



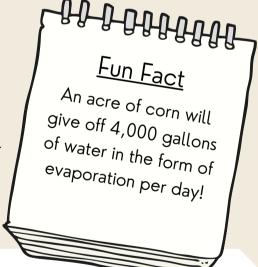
CHALLENGE:

Make a type of slime that behaves like a solid AND a liquid!



- Place 4 teaspoons of cornstarch in a bowl.
- Add 2 teaspoons of water to the cornstarch.
- Add a few drops of food coloring to the bowl (optional).
- Blend the mixture with a fork. It should flow when the bowl is tipped but feel solid to the touch. Add water or cornstarch as necessary.
- Play and have fun!





BEHIND THE SCENES:

Although Oobleck looks like a liquid, it does not always behave a liquid. Oobleck is a "non-Newtonian" type of fluid. Non-Newtonian fluids respond differently depending on how quickly you try to move it around. When a force is acted on Oobleck quickly, it will behave like a solid because the pressure forces all the particles of the corn starch together. When the force is slower, the particles of the corn starch have time to move around the object, just as a normal Newtonian liquid would.