Oobleck.

1. Intro
- Atoms/molecules
- solid, liquid, gas
  examples of each
- physical changes versus chemical reactions
  Physical: easy to change between forms
  Chemical: irreversible

2. Introduce Experiment
- We’re going to mix corn starch and water.
  Record: Hypothesis
- What do you think will happen? Will it dissolve? Is it a solid/liquid?

Make it
- Give them all little bags of corn starch (Ratio: 1 cup corn starch to half cup water)
- Hand out pre-measured water, they mix it in the bag

Play with the Oobleck
- Quickly squeeze a handful. The harder you push, the thicker the Oobleck becomes
- Open your hand. Ooleck oozes like a liquid
- Stir quickly with finger -- will resist movement
- Stir slowly - will be able to move around

Record: Observations
- How does it behave like a solid? How does it behave like a liquid?
- What is it like? What happens when you squeeze it? What happens when you dunk your finger into it?
- Do you think a chemical reaction happened? Why or why not?

Not a chemical reaction, just a solution, since if you dry out the oobleck → you can get your cornstarch back!

Record: Conclusion

Explanation:

Oobleck is a mixture of cornstarch and water. As a mixture of a solid and
a liquid, it takes
on properties of both, and behaves in unpredictable ways. In liquids, the
bonding or
attraction between molecules is weak, allowing the molecules to easily
flow past one
another and rearrange, giving liquids their characteristic properties. In
solids, the
bonding between molecules is much stronger. The molecules cannot be easily
rearranged, so the solid keeps its shape.

In oobleck, the relatively large solid cornstarch molecules form long
chains. The smaller
water molecules flow past each other and between cornstarch molecules
allowing the
chains to slide and flow around each other. This is why oobleck behaves
like a liquid when
it is not under pressure. When you squeeze or press on oobleck, the water
is temporarily
forced out of the mixture and the starch molecules are pressing against
each other, causing
the mixture to behave like a solid.

New Newtonian Fluid