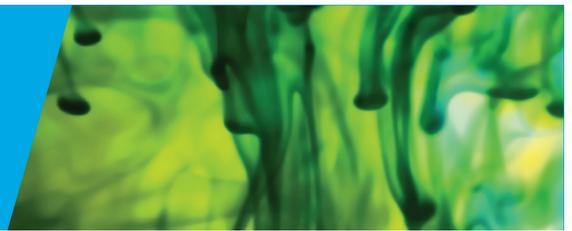


CURIOSITY AT HOME

Oobleck



Follow a recipe for making a strange liquid known as Oobleck. Then become a material scientist and test your new creation. What can Oobleck be used for?

MATERIALS

- 1 spoon
- 1 small bowl or Ziplock bag
- Water (½ cup)
- Food coloring (a few drops, optional)
- Corn starch (will need ~1 cup)
- Science notebook or paper
- Pencil or something to write with

PROCEDURE

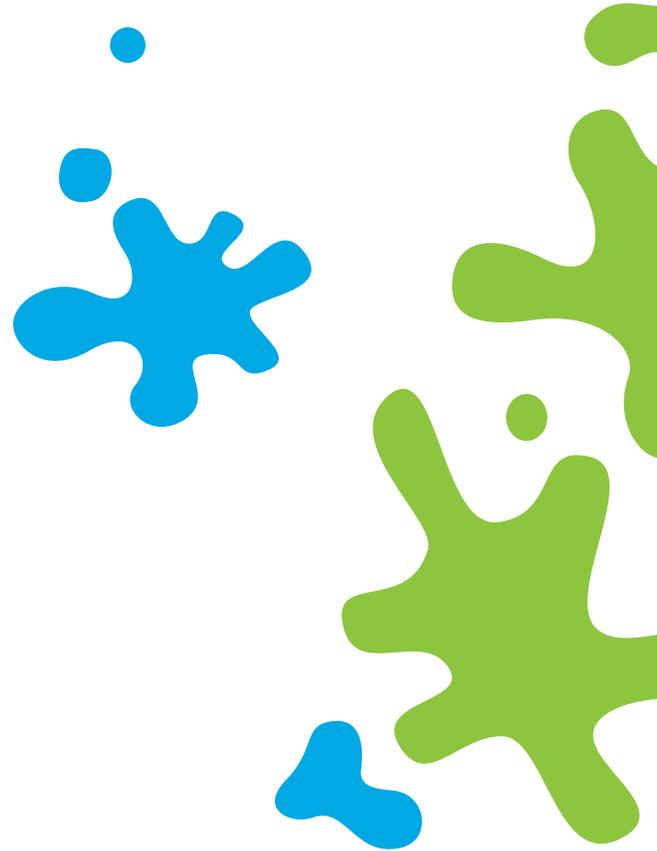
- If adding food coloring, mix it with the water in a large bowl.
- Begin adding small amounts of the corn starch while continuing to mix.
- Keep adding cornstarch a little at a time and stir until your mixture starts to feel thick.
- **Tip:** If making in a plastic bag instead of a bowl, remove the air before sealing and squeezing to mix the ingredients.

EXPLORE MORE

Play with the Oobleck and make some observations. Record your observations in your science notebook.

Special note: If you used food coloring in your Oobleck, make sure to play with it over a protected surface it to avoid staining any areas like tables or walls.

- How would you describe the texture of the Oobleck (sticky, slimy, crunchy...)?
- Squeeze it into a ball shape; how long does it hold its shape?
- Leave a little Oobleck out overnight. What happens?
- What else can you do with your Oobleck?



WHAT'S HAPPENING?

Viscosity is a property that describes how fast or slow a liquid will flow. Most liquids have a constant viscosity that doesn't change without other changes to things like temperature. Oobleck is an example of a non-Newtonian fluid, which is a type of liquid that changes its viscosity when force is applied. This is why Oobleck sometimes feels like a solid, and sometimes feels like a liquid, depending on how you touch it!



@pacsci

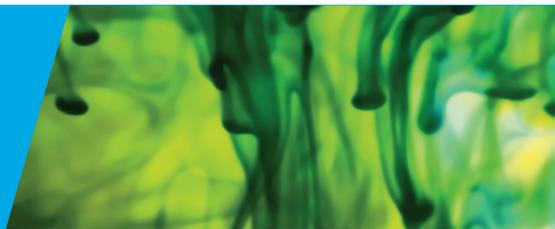
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CURIOSITY AT HOME

OUBLECK



K-2 GRADE EXPLORATION

- What happens if you change the temperature of your Oobleck? Try placing some of your Oobleck inside a freezer or some ice overnight. Record your observations the next day, in your science notebook.
- What other properties of matter can you use to describe your Oobleck?



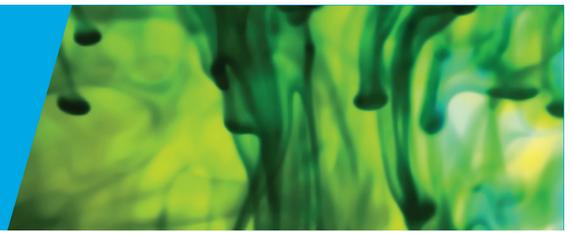
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CURIOSITY AT HOME

Oobleck



3–5 GRADE EXPLORATION

- Material scientists study and develop materials we need for making things that we use every day, like metals, plastics, sports equipment, shoes ... just about everything! They often test materials to figure out how they could best be used. Be a material scientist and test your Oobleck to discover what it could be used for.

Below are some different ideas of how Oobleck could be used and some different ways to test it. Copy the table below into your science notebook. Fill in the rest of the table with your tests and ideas.

Use ideas:	What property is needed?	Tests you could perform:
Sticking papers to the wall	Stickiness	Stick a piece of paper to the wall with a little slime. Time how long it stays up.
	Bounciness	Use a ruler to measure how high it will bounce.
Seal for leaks		Put some water in a cup. Stretch the Oobleck across the top. Over a sink, turn the cup upside down. Time how long it will hold the water.
Make boats out of it	It can float	
	Stretchiness	
		Put part of it over the edge of the table, and measure how far it will stretch.

- What other properties of your Oobleck can you test?
- Try changing the moisture of your Oobleck by leaving it out for a while or adding more water. Does this affect how well it would work for the uses you tested earlier?

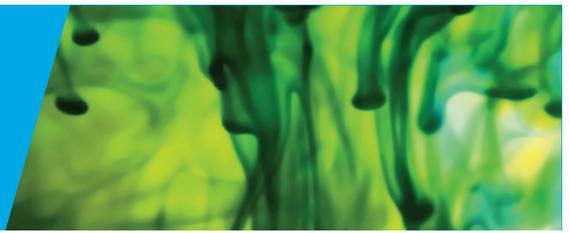


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CURIOSITY AT HOME

Oobleck



6–8 GRADE EXPLORATION

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Make boats out of it	It can float	
	Stretchiness	
		Put part of it over the edge of the table, and measure how far it will stretch.

- What other properties of your Oobleck can you test?
- Which of your uses for the Oobleck would benefit from a wetter or drier product? Try adjusting your ratio of water to corn starch and see if you can make something that better meets the goals in your chart.



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