



Is It a Solid or a Liquid?

Let's Make Oobleck

Sometimes a substance has properties that make it more challenging than usual to determine whether it is a solid, a liquid or a gas. This is the case with a very unusual substance nicknamed oobleck. This substance gets its name from a Dr. Seuss story in which it appears.

Carry out this investigation and put your states of matter knowledge to the test. Will you make a solid, a liquid or something totally new? Have fun and take care not to get too messy when making oobleck.



Equipment:

- Sheets of newspaper
- A large sheet of greaseproof paper
- 1 cup of cornflour
- ½ cup of water
- A bowl
- A spoon
- An empty yogurt cup
- Paper towels



Method:

As you carry out each part of this investigation, make observation notes in your results table.

1. Cover a table with sheets of newspaper and then place a large sheet of greaseproof paper on top.
2. To make the oobleck, put the cornflour into a bowl and carefully add the water. Use a spoon to stir the mixture until it is thick and smooth. Now get investigating!

What properties does the substance appear to have?

Does it take the shape of its container, like a liquid?

Can it be poured?

Do you think it could be cut like a solid?

3. Now stir the oobleck with your hands. Squeeze it. Scoop out a handful and hold out your hand so it is flat.

How is the oobleck acting now? Like a solid or a liquid? Why?

Record your observations.

4. Form the oobleck into a ball and place it on the greaseproof paper.

What does the material do now?

5. Pour some of the oobleck into the yogurt pot and gently poke it with your finger.

How does it behave?

6. Now jab it very hard with your finger.

How does it act now?



Results

Stage of investigation	Observations of oobleck behaviour	Acting like a solid? (tick)	Acting like a liquid? (tick)
Mixing cornflour and water together			
Squeezing the oobleck			
Oobleck on hand			
Ball of oobleck on greaseproof paper			
Oobleck in yogurt pot			
Poking the oobleck			
Jabbing the oobleck			

Conclusion:

Do you think the oobleck is a liquid or a solid? Why?

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What questions do you have about solids, liquids and gases? How could you investigate this further?

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