Cornflour Slime

Year 5

Overview:

It's time to get messy! Make slime with this simple recipe and explore a substance that sometimes seems to be a liquid and sometimes seems solid!

Core alignment to Australian Curriculum:

Year 5

Chemical sciences

- Solids, liquids and gases have different observable properties and behave in different ways

Safety:

- **Not to be eaten!**
- Parents/guardians, please check whether any materials are known to cause allergies or sensitivities in your child (via skin contact) before proceeding. Gloves can be worn for duration of experiment if you're happy for your child to proceed.
- Thoroughly wash hands before and after activity.

Materials:

- 1 cup of cornflour (corn starch)
- ½ cup water
- Food colouring (optional – for a bit of brighter fun)
- Spoon
- Small mixing bowl

Procedure & Questions:

1. IF using food colouring, add a couple of drops of your favourite colour to the ½ cup of water and stir.
2. Pour the cornflour into the mixing bowl.
3. Slowly add water, stirring very slowly.
4. Stir the mixture slowly, then try stirring quickly. Which is harder?
5. Hit the mixture with your fingers quickly. What happens? Now poke your fingers into the slime slowly. What happens?
6. Pick up a blob of slime and roll it into a ball with your hands. What does it feel like? Stop rolling the ball and hold the mixture in one hand. What happens to the shape of the mixture?
7. Roll the mixture into a ball again and then carefully toss it back into the mixing bowl. What happens to the shape of the ball as it moves through the air?
8. Would you describe your slime as a solid or a liquid?
9. Experiment by adding a bit more cornflour or water to your slime to see how its consistency changes.
10. Once finished playing and testing, pour mixture into bin, wash up bowl and spoon and wipe down bench and anywhere else that got slimed!
11. Wash your hands thoroughly.

The Science:

When you mix the cornflour particles with water slowly, they can move around each other easily and flow like a liquid. If you apply force quickly, like stirring the mixture fast, hitting it or rolling the slime into a ball, the particles “jam” together not allowing the water to lubricate the particles and so the mixture acts like a solid. The cornflour mixture is similar to sand and water. If you run along the beach, it is much easier to run on wet sand than on dry sand. However, if you stand still on the wet sand your feet start to sink.