



## Curiosity Guide #209

### Friction

Accompanies Curious Crew, Season 2, Episode 9 (#209)

### Greasy Hands

Investigation #8

#### Description

Have you ever wondered why we put oil into a car, or why machinery like a sewing machine sometimes comes with a little bottle of oil? You can find out with this simple investigation.

#### Materials

- Hand lotion

#### Procedure

- 1) Rub your hands together vigorously.
- 2) Do you feel heat?
- 3) Squirt a bit of hand lotion on your hands.
- 4) Rub your hands together again.
- 5) Do you notice a difference?

#### My Results

## Explanation

Rubbing your hands together creates a lot of **friction**! Some of that **energy** is transferred into heat. **Lubricants** like oil or lotion reduce how well your hands are contacting each other, so there is not so much heat produced. Lubricants protect machinery in engines from failing by making sure that the parts don't get too hot.

**Something else to think about:** Ice-skating is a great example of friction fun. When an ice skater's blade moves across the ice, the blade rides on a very thin layer of water that acts like a lubricant between the ice and the steel blade. The water also reduces the amount of friction and resistance so the skater can glide quite far. However, with less friction and resistance, the skater may find it hard to stop. Uh-oh!

Friction, you gotta love it!

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