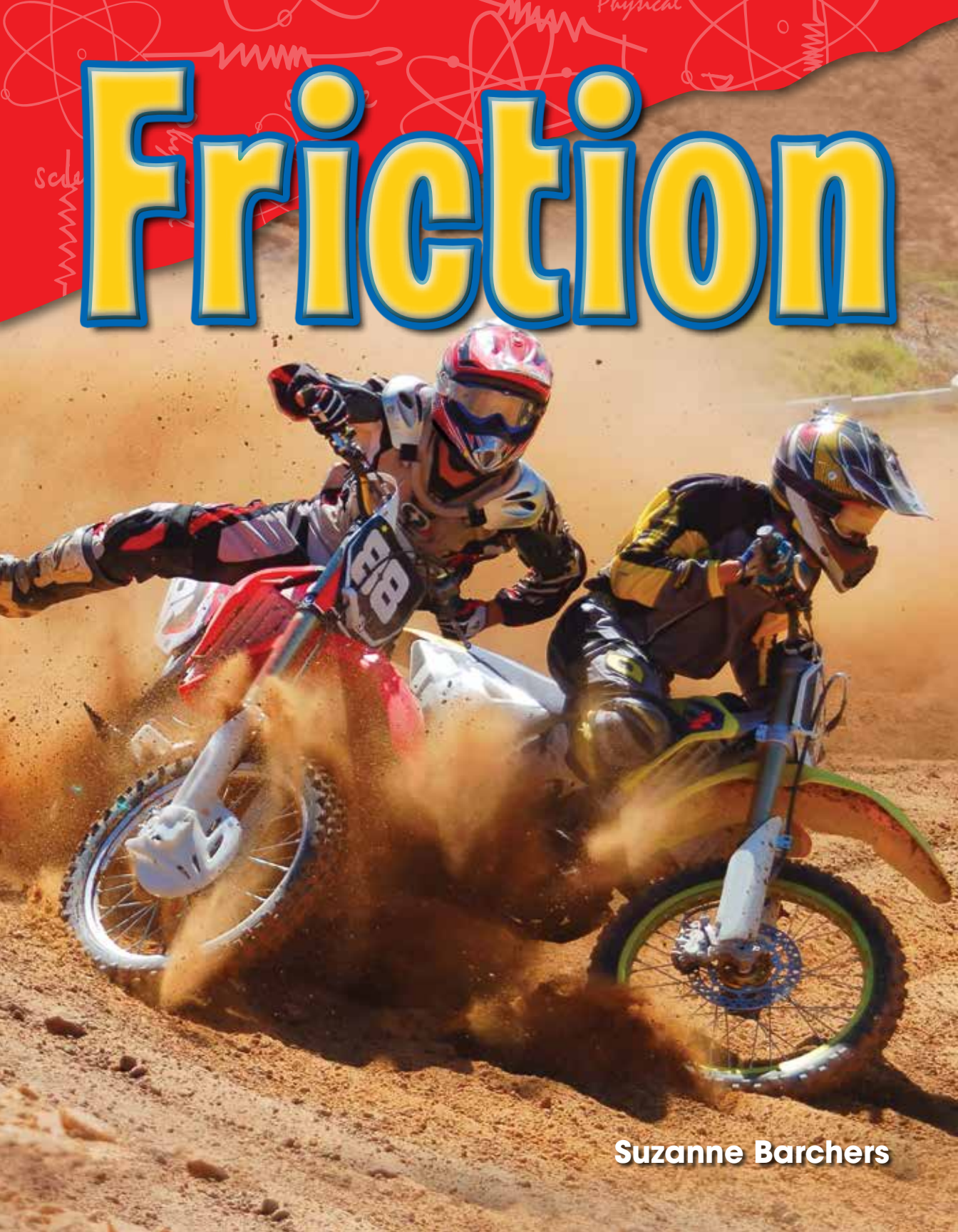
Friction



Suzanne Barchers

For teachers' inspection ONLY

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Feel the Force!

Did you ride a bike this week? Maybe you went skating or rode a scooter or a skateboard. Each time you used a brake or your foot to stop, you used an important force. That force is called *friction*.

When you move, you use energy. Friction slows this energy. Because of friction, you can't roll on your bike forever. Friction may be the most important force of all. Read on, and then *you* can decide.



Friction keeps this girl in one spot.



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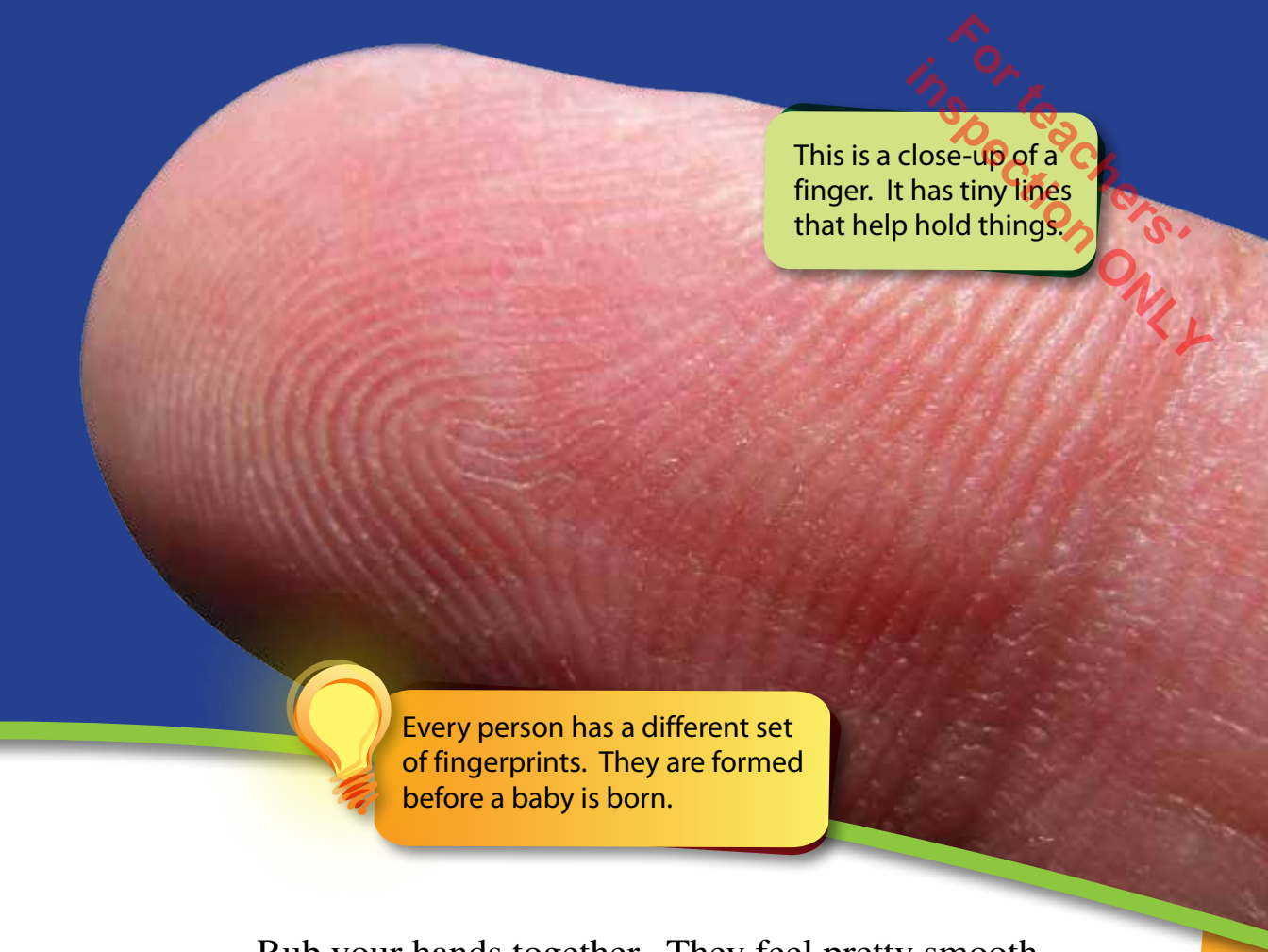
Friction in Action

Friction has many purposes. Without it, the world would be a slippery place!

Moving Along

Friction happens whenever two things touch or rub against each other. You counted on friction when you got up this morning, even if you didn't know it. Your blanket stayed in place when you made your bed. And without friction, your socks would be down around your ankles!

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This is a close-up of a finger. It has tiny lines that help hold things.

Every person has a different set of fingerprints. They are formed before a baby is born.

Rub your hands together. They feel pretty smooth, right? Rub them faster and they get warm. That heat (a kind of energy) comes from friction. Your hands aren't perfectly smooth, so the bumps and lines on them rub together and cause friction.

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Let's Do Science!

Which surface has more friction? See for yourself!

What to Get

- ❍ different surfaces (carpet, wood, aluminum foil, waxed paper, or sandpaper)
- ❍ long, sturdy rubber band
- ❍ ruler
- ❍ shoe

