

# Can it ever be good to slip?



Most shoes are designed to help you to grip the floor. But if you've ever worn a pair of bowling alley shoes – you'll know they seem to be slippery.



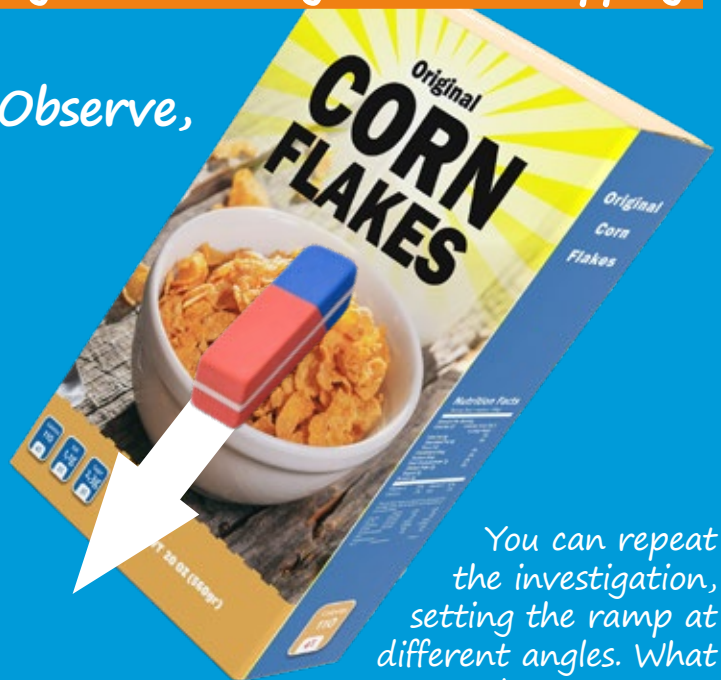
Predict, Observe,  
Record



Fold an empty cereal box in half to make a ramp. Choose some small objects that you predict will slip down the surface of the box quickly and some that you predict will grip well.



Record your observations. Were your predictions right? Which objects were better at gripping?



You can repeat the investigation, setting the ramp at different angles. What happens now?





# Why are bowling alley shoes so slippery?

We can't answer this question with science alone – we will need science AND sport!



Science helps us to understand why some things slip and others grip.



Friction is a force between two surfaces when they rub against each other.

A smooth bottle top slides down the slope of a cereal box – there's less friction.



Rough surfaces have more grip.

Bowling alley shoes have smooth, slippery soles.

They slip because there's less friction.

Now we need sport to tell us WHY the shoes are designed to slip.



Most shoes have rough soles – to help them to grip.

So they need to be slippery for safety and to help sportspeople to slide to bowl a fast ball!



In bowling, competitors need to slide when releasing the bowling ball.

