

## Thinking cap

I wonder why people slip more easily on a wet floor than a dry floor...



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The wet floor is covered by a layer of water as it has less friction



3. What equipment can you use to measure the time it will take for the car to stop moving after you release it from the top of the ramp? **a stopwatch**
4. What is the advantage of using a stopwatch to measure the time taken for the car to stop moving? **to get accurate readings**
5. What equipment can you use to measure the distance the car travels? **a ruler or a measuring tape**
6. What is the advantage of using a ruler to measure the distance the car travelled? **to get accurate readings**

## How Do Surfaces Affect Friction?

Look back at the Let's Explore! Activity on page 91. The toy car travelled further when it moved over the plastic sheet. It travelled a shorter distance when it moved over the sandpaper. Friction slows down and stops the moving car.

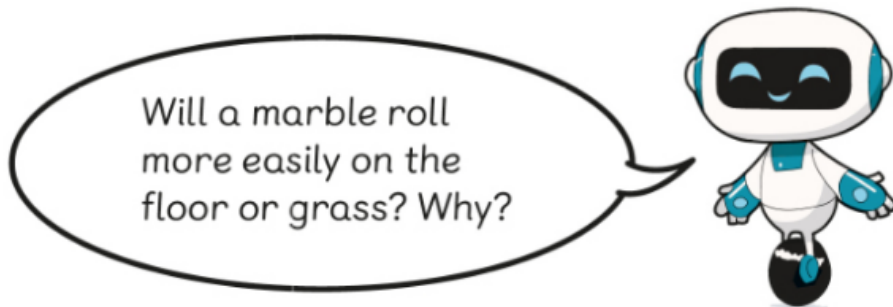
When you push a shopping trolley, does friction act away from you or towards you?

**towards me**



**For the same distance the toy car needs more time when it moved over the sandpaper.**

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on the floor because the floor is a smooth surface compared to grass that means it has less friction

## When Is Friction Helpful?

Imagine what would happen if there was no friction. Would we be able to walk?

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Sometimes friction is helpful to us. It helps us to hold things like pencils and cups. It helps us to walk without slipping. It helps cars to move without skidding.



Why do cars sometimes skid when the road is wet?



Wet road is a smooth surface compared to dry road so the friction between the road and the car tyres becomes less. The water fills in the tiny pits in the road surface and make it smooth.



Cars and bicycles have brakes that use friction to help slow down and stop the vehicles.



### Word Boost

grooves

long, narrow spaces cut into a surface



Soles of shoes get worn out because of friction.



## Word Boost

soles

undersides of footwear such  
as shoes



Look at the stickers at the back of the book. Paste the stickers to show which roads Ron, Eddy and Ralph are talking about.

