

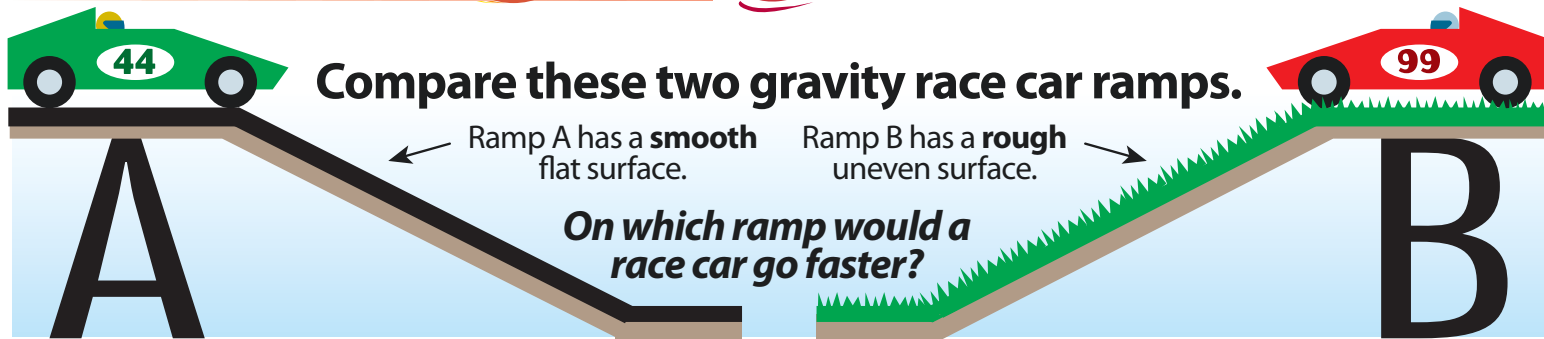
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THE SCIENCE OF RACING

# FRICITION: IT CAN REALLY SLOW YOU DOWN



When a car goes down a smooth surface like ramp A, it will travel more quickly because it has less surface friction.

Ramp B has a rough surface, which creates more friction when the car travels over it, making it go much slower than the car on ramp A.

## What is friction?

**Friction** is what happens when two things rub against each other. Friction slows or stops moving things. A rolling ball eventually stops because friction between the ball and the ground brings it to a stop.

### See Friction in Action!

Roll a ball from one end of a basketball court to the other. Pretty easy, right?

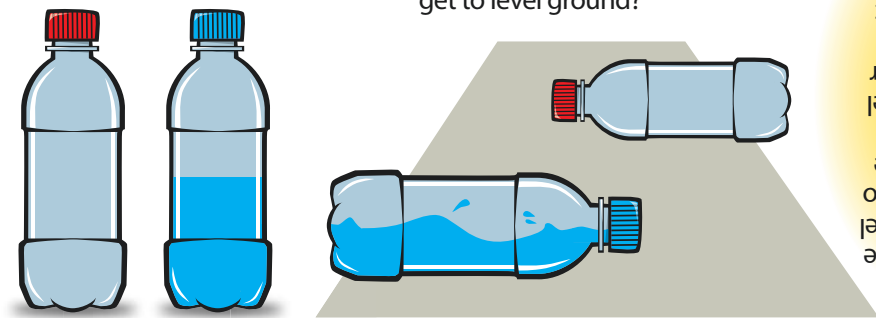
Now try to roll the basketball that same distance on grass or gravel. Friction makes that a lot harder to do!

Have you ever fallen and scraped your knee? Ouch! Friction between the skin on your knee and the hard ground is what made it hurt!



## The Great Bottle Race

- Get two plastic bottles. Leave one empty. Fill the other halfway with water.
- Starting at the same time, let them roll down ramp. What happens when they get to level ground?



The bottle with the water in it will travel faster at first due to the weight of the water giving it a boost. But on level ground, the water causes friction, which will slow it down, while the empty bottle rolls a longer distance.

### Extra! Extra!

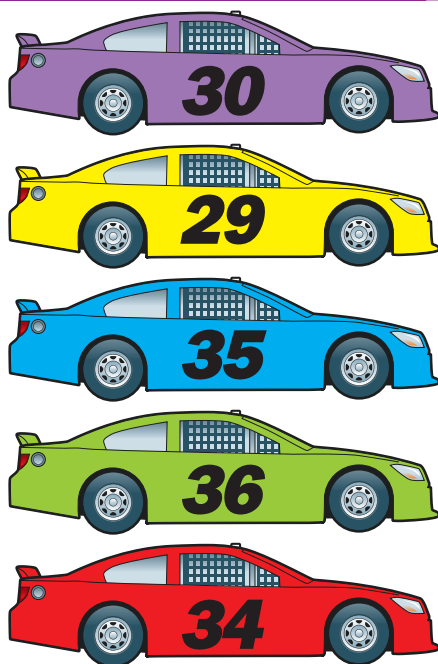
The word *friction* has more than one meaning:

- The rubbing of objects together.
- The resistance an object encounters when moving over a surface.
- A disagreement between people or groups of people; conflict.

Look through the newspaper for examples or images that show one of the definitions of friction.

Standards Link: Research: Use the newspaper to locate information.

### Kid Scoop Puzzler



Draw a line from each car to the math problem that equals its number.

$$\begin{array}{r} 17 \\ 9 \\ 6 \\ + 4 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ 9 \\ 3 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 11 \\ 11 \\ 7 \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ 9 \\ 8 \\ + 8 \\ \hline \end{array}$$

$$\begin{array}{r} 14 \\ 3 \\ 3 \\ + 9 \\ \hline \end{array}$$

### Double Double Word Search

Find the words in the puzzle. Then look for each word in this week's Kid Scoop stories and activities.

F W F L L I T S R I  
C H A R T R A M P S  
I E S O I A N O S W  
H E T M G C O K O O  
T L E A F I T E H L  
O S R E C N E I C S  
O D R O U G H F O A  
M S T E L S S E L N  
S R I R O L L I N G

Standards Link: Letter sequencing. Recognized identical words. Skim and scan reading. Recall spelling patterns.

### FROM THE Kid Scoop LESSON LIBRARY

#### Science News

Look for three examples of newspaper articles related to science. Tell which science the article relates to. For example, a weather story is related to the science of meteorology.

Standards Link: Scientific Enterprise: Students know that although people using scientific inquiry have learned much, science is an ongoing process.

## Why did the library books slide off the shelf?

ANSWER: They were in the non-friction section.

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