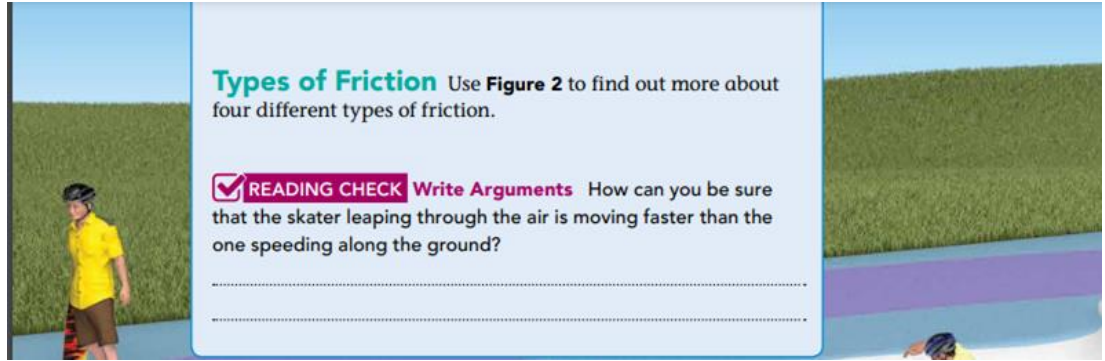


# Types of Friction Peardeck

# Directions!

1. **Read** the next TWO slides (Figure 2) to learn about 4 types of friction.
1. You will **label 3 other skaters** to identify the friction that is opposing their motion.
1. In the boxes describing the 4 types of friction, give another example of that type of friction.
1. On the last slide, you will answer the “READING CHECK” question, see to the right.



**Types of Friction** Use **Figure 2** to find out more about four different types of friction.

**READING CHECK** **Write Arguments** How can you be sure that the skater leaping through the air is moving faster than the one speeding along the ground?

.....

.....

This is student-paced so you can go back and forth between the slides.  
The draw setting lets you draw or type.

## Figure 2 Rolling Friction

When an object rolls across a surface, rolling friction occurs. Rolling friction is just sliding friction between two very smooth surfaces (the axle and the bearing of wheels, for example). If similar materials are used, rolling friction is much easier to overcome than sliding friction. That's why a skateboard with wheels that turn is easy to push on a sidewalk. It would be more difficult to push a skateboard if it had no wheels.

**Another example:**

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## Sliding Friction

Sliding friction occurs when two solid surfaces slide across each other. Sliding friction is what makes moving objects slow down and stop. Without sliding friction, a skater who falls would skid along the ground until he hit a wall!

**Another example:**

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Type of friction opposing this skater-

Students, draw anywhere on this slide!



- You will **label 2 other skaters on this slide** to identify the friction that is opposing their motion.
- In the boxes describing the 2 types of friction, give another example of that type of friction.

Type of friction opposing this skater-

**Static Friction**

Static friction acts on objects when they are resting on a surface. The skater trying to push the ramp is experiencing the force of static friction. Think about trying to push a couch across the room. If you don't push hard enough, the couch won't move. The force that's keeping the couch from moving is static friction between the couch and the floor. If you get some friends to help you push hard enough to overcome static friction, the couch starts moving and there is no more static friction. At that point, there is sliding friction.

**Another example:**

Type of friction opposing this skater-

**Fluid Friction**

Fluids, such as water and air, flow easily. Fluid friction occurs when a solid object moves through a fluid. Fluid friction from your contact with water acts on your body when you swim. It also acts on a skater's body when he does a trick in mid-air. When an object moves through the air, the fluid friction acting on the object is often referred to as air resistance. Fluid friction is typically easier to overcome than sliding friction.

**Another example:**

**Figure 2**

Students, draw anywhere on this slide!

You're almost done!

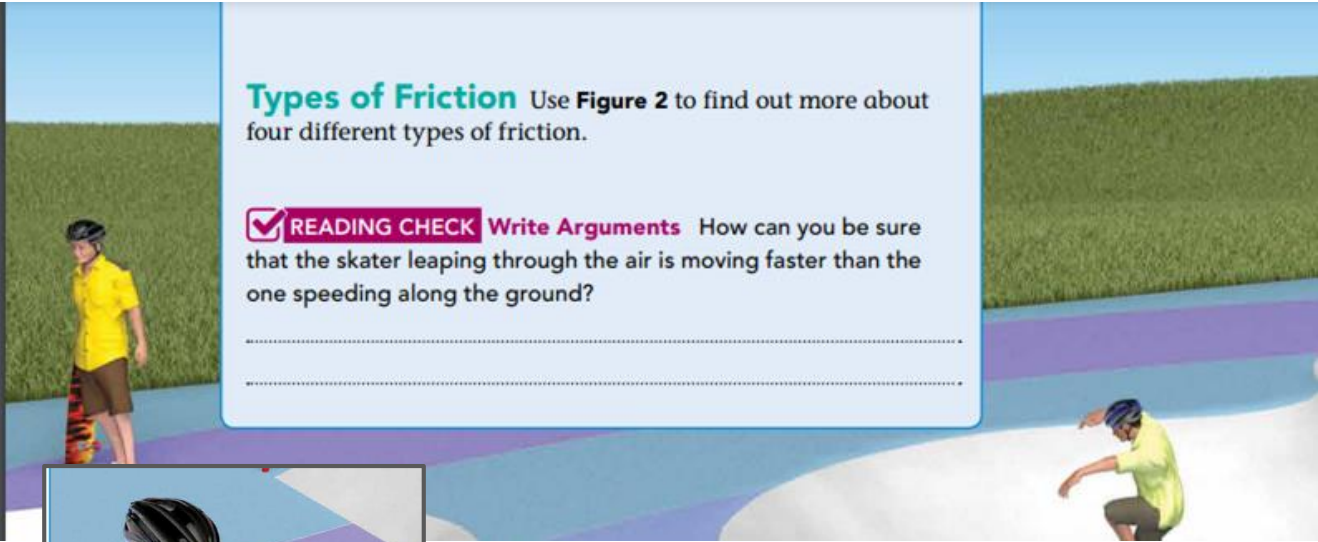
Now, answer the READING CHECK question.

**Types of Friction** Use **Figure 2** to find out more about four different types of friction.

**READING CHECK** **Write Arguments** How can you be sure that the skater leaping through the air is moving faster than the one speeding along the ground?

.....

.....



Students, write your response!