You’re on a Roll
By Carrie Silchenstedt Kirchner

What You’ll Need
a box of tissues (full)  a few crayons  a clear, flat surface

What to Do
1. Place the tissue box on the flat surface.
2. Push the box along the surface. Notice how much the box resists being moved.
3. Line up the crayons side by side under the box, as shown above.
4. Push on the end of the box again and see if it is easier to move.

How It Works
The first time you moved the box, friction between the bottom of the box and the flat surface resisted the push. When you moved the box over the crayons, they rolled under the box and over the surface, reducing the friction.

The idea of using round objects to reduce friction is the basis for the wheel and for the bearings inside wheels. Some scientists have said that the pyramid builders of ancient Egypt might have placed logs under huge blocks of stone to help them move the blocks into place. But others think the Egyptians had even easier ways to reduce friction. Come up with your own best idea for how to move those big blocks.
What Next
You can make a mini pyramid out of sugar cubes and study maps of the Great Pyramids and the nearby Sphinx---their construction, their history, their place in ancient Egyptian life.