

## Friction



Grey Nurse Shark

Friction is the force that results when two materials rub against each other. This force can slow the motion of an object or keep it from moving. Friction depends on the objects that rub together. The shape, speed, or texture of one object can affect the amount of friction with another object. The texture of your socks lets you slide across a smooth floor. But the texture of your shoes does not. There is more friction when you try to slide in your shoes.

Air and water resist motion when moving objects push against them. Air or water flowing over a surface causes friction. Cars and airplanes are designed to cause little friction with the air. Submarines and ships are designed to cause little friction with the water. The shark's shape and its special skin reduce its friction with water. This helps the shark to swim smoothly and swiftly.