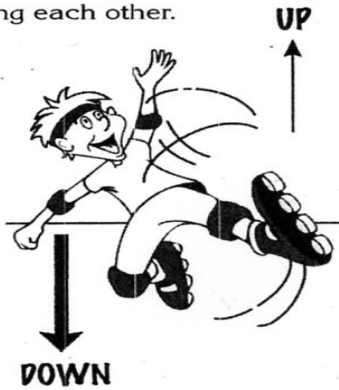


1  
What kinds of forces are there? You may be surprised to find that you are familiar with several of them. Think about how each of these forces affects motion.



Gravity is a force you know well. If you stumble, what happens? You fall. Which way do you fall? You don't fall up, you fall down! Gravity is the attraction between two objects. It is considered to be a non-contact force because the objects do not have to be touching each other.



8  
But sometimes friction can be aggravating. There is no surface that can be completely free of friction. Even the smoothest surfaces have slight imperfections:



If you want something to stay in place and not move about easily, friction can be your friend.

The amount of friction depends on the kinds of surfaces and how hard they are pressing against each other. Think about two rough surfaces pressed hard together—sandpaper and a rough block of wood. To move one across the other will be much harder than two smooth surfaces like a mirror and an ice cube.

