



HOME DEMO NO. 16

Dictionaries Are Page After Page Of Inertia

If you listen to the opening of the Bill Nye show, you'll always hear the phrase "Inertia is a property of matter."

Objects that are not moving don't move unless they get pushed or pulled. Moving objects keep moving unless they get pushed or pulled. This feature of objects and materials is what we call inertia.

The idea of inertia is important and worth thinking about. Try this:

What you need:

1. A large (perhaps unabridged) dictionary, or other big thick hardcover book. A phone book is okay, but not as surprising.

What you do:

1. Take off any rings or jewelry you might have and then put your hand palm side down, flat on a table or counter.
2. Place the dictionary on top of your hand so it rests mostly on your hand and partially on the tabletop.
3. Slap the book hard. You will hardly feel it.
4. Try it again, this time have a friend swat the book.

What's happening?

The dictionary is heavy. We say it has mass; it's massive. It has a lot of inertia. When you slap the dictionary, the inertia of the dictionary makes it hard to move, even when you're moving it down. You still feel the pull of gravity, the weight. But the dictionary's large inertia keeps it from pushing down very much harder. Inertia keeps your hand from getting smashed.