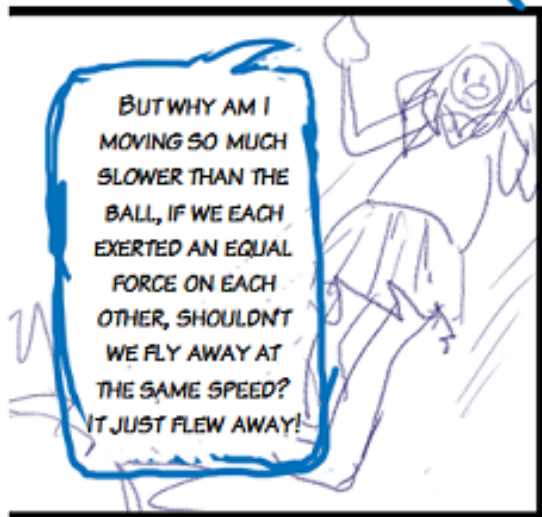


THE REASON A BASEBALL PLAYER ON EARTH DOESN'T FEEL THIS ACCELERATION IS BECAUSE OF FRICTION. THE GRAVITY FROM THE EARTH KEEPS THE BASEBALL PLAYER GROUNDED, PREVENTING HIM FROM ACCELERATING FROM THROWING THE BALL, BECAUSE OF CONTACT FROM THE GROUND



$F=ma$

NEWTON'S SECOND LAW STATES
THAT THE ACCELERATION OF AN
OBJECT IS PROPORTIONAL TO
THE FORCE ON THAT OBJECT.



BUT YOU ALSO HAVE
TO CONSIDER THE
MASS OF THE OBJECT.
NEWTON'S SECOND
LAW IS EXPRESSED AS
 $F = ma$.


$$m_{\text{ball}} a_{\text{ball}} = m_{\text{you}} a_{\text{you}}$$

YOU HAVE A LOT MORE MASS THAN
THE BASEBALL. SINCE THE FORCE ON
YOU AND THE BALL HAS TO BE EQUAL,
YOU HAVE TO ACCELERATE LESS FOR
BALANCE, AS SHOWN BY $F=ma$.



OH! I GET IT. THAT
MAKES SENSE.



This work is licensed under the Creative Commons Attribution-NonCommercial 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc/4.0/>.