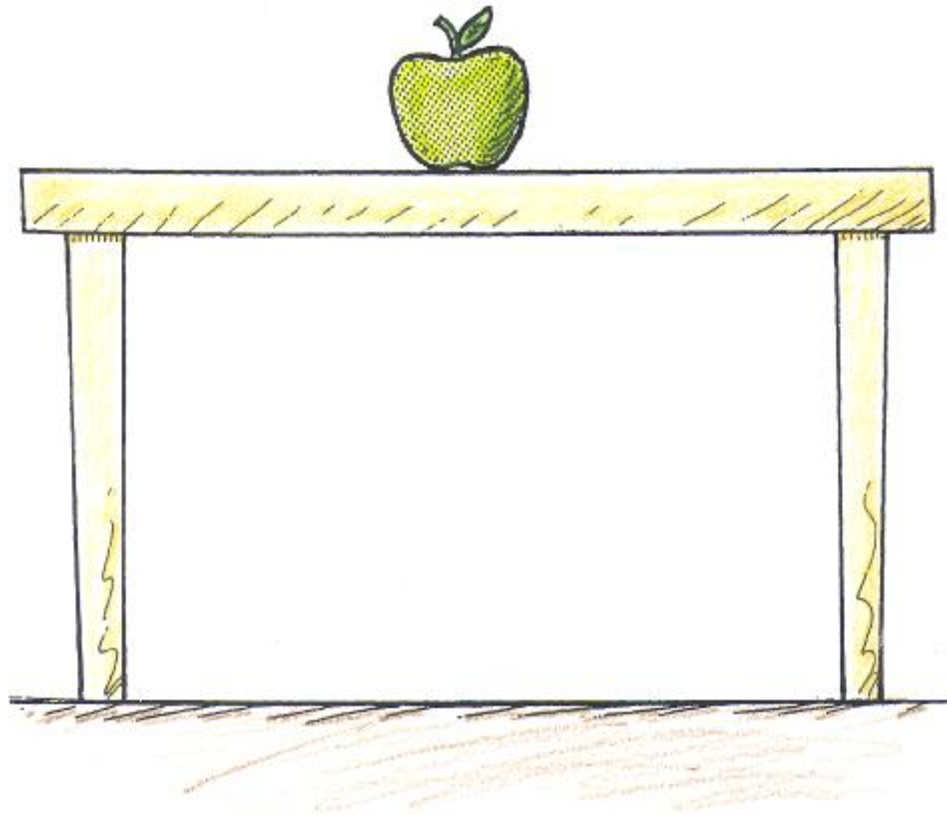


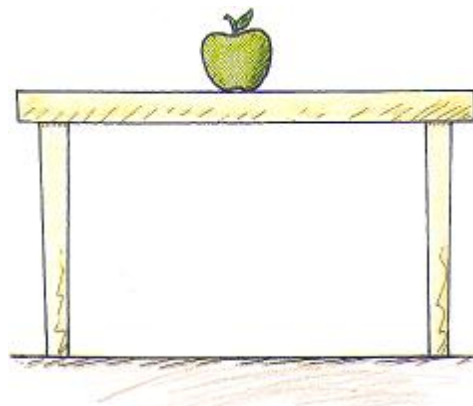
# NEXT-TIME QUESTION

Consider the apple at rest on the table.  
If we call the gravitational force exerted  
on the apple *action*, what is the *reaction*  
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## Answer:

The reaction force is the apple gravitationally pulling on Earth (and NOT the support force by the table). To identify a pair of action-reaction forces in any situation, first identify the pair of interacting objects involved. Something is interacting with something else. In this case the whole Earth is interacting (gravitationally) with the apple. So Earth pulls downward on the apple (call it action), while the apple pulls upward on Earth (reaction). Simple put, Earth pulls on apple (action); apple pulls on Earth (reaction). Better put, there is a single interaction between apple and Earth, and they simultaneously pull on each other—with the same amount of force.



Just because their magnitudes are the same, don't confuse the two distinctly different interactions--the one between the apple and Earth and the other between the apple and table. *Earth pulls on apple; apple pulls on Earth*, is distinctly different than the force pair *apple presses on table; table presses on apple*.

An action-reaction force pair comprises a single interaction.



Hewitt  
Drewit!

