

# Dinosaur Explosion

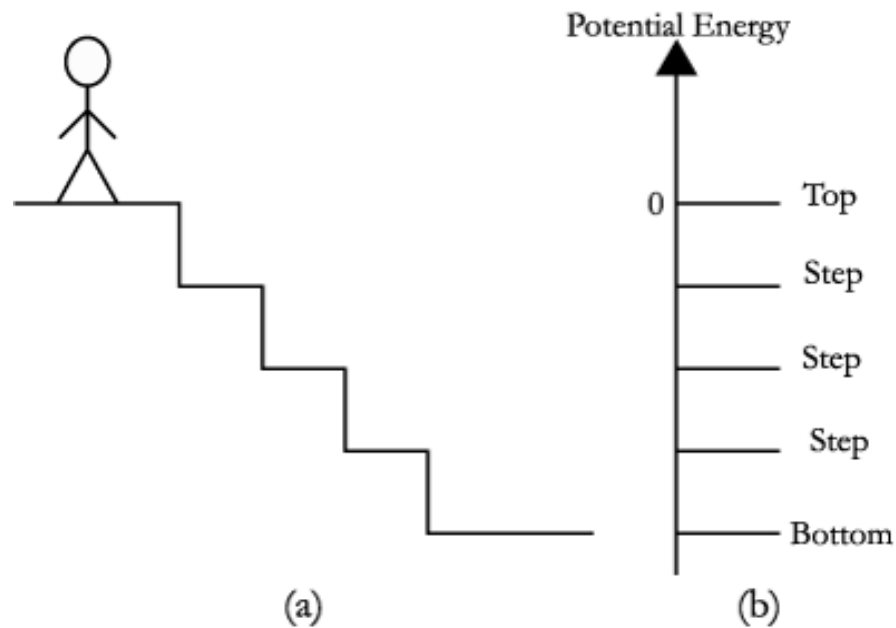
Tyler Tyler Brent Franklin Aston





# Gravitational Potential Energy

$$U=mgh$$

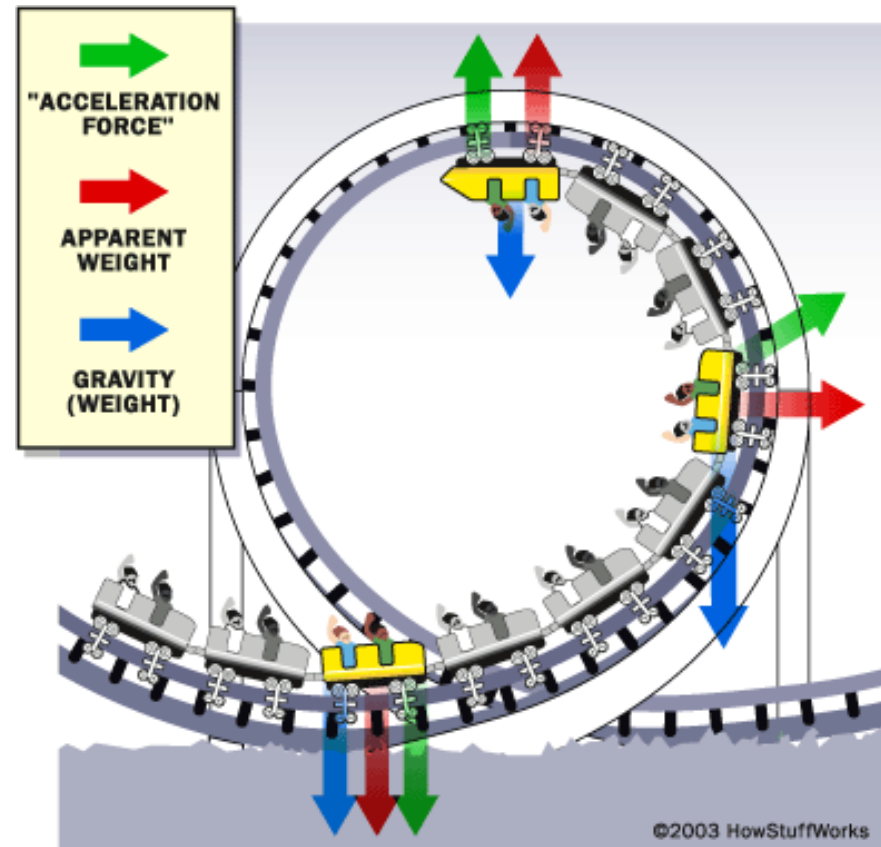


<http://klight.wikispaces.com/AP+Physics>

[http://en.wikipedia.org/wiki/Gravitational\\_potential\\_energy#Gravitational\\_potential\\_energy](http://en.wikipedia.org/wiki/Gravitational_potential_energy#Gravitational_potential_energy)

# Loop/corkscrew

- Centripetal acceleration causes the ball to stay pressed against the track. Even when the ball is upside down, it does not fall because centripetal acceleration forces it upwards



<http://klight.wikispaces.com/AP+Physics>

[http://en.wikipedia.org/wiki/Centripetal\\_acceleration#Tangential\\_and\\_centripetal\\_acceleration](http://en.wikipedia.org/wiki/Centripetal_acceleration#Tangential_and_centripetal_acceleration)

# Conservation of Energy

As the ball rolls down a slope, it picks up speed because the gravitational potential energy is converted to kinetic energy. Once the ball is in motion, it has kinetic energy so it can move back up an incline by converting some of the kinetic energy back to gravitational potential energy. This is how the ball completes a jump.

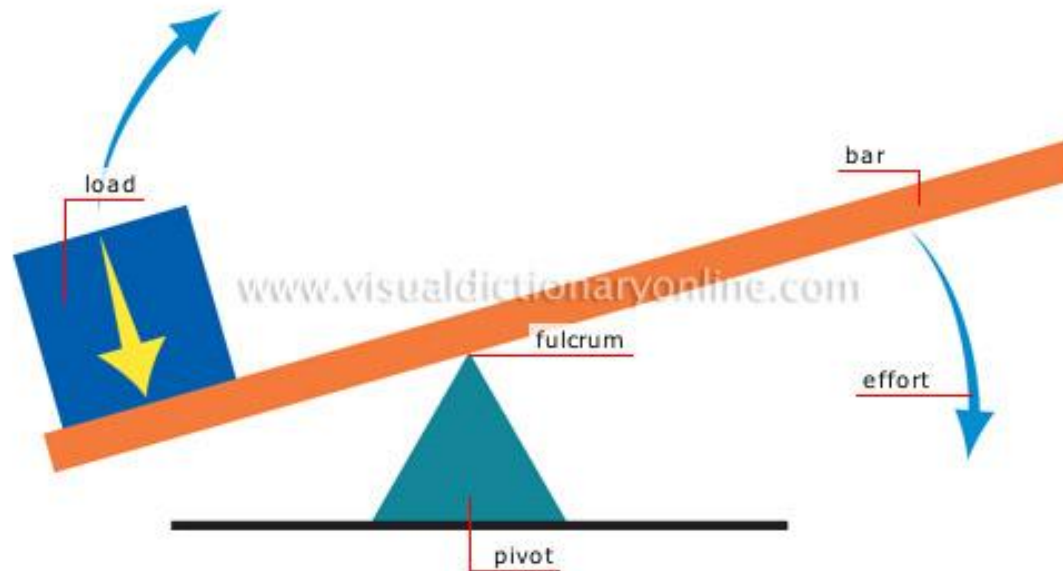
<http://klight.wikispaces.com/AP+Physics>

[http://en.wikipedia.](http://en.wikipedia.org/wiki/Conservation_of_energy)

[org/wiki/Conservation\\_of\\_energy](http://en.wikipedia.org/wiki/Conservation_of_energy)

# Lever

- When one end of the lever is pulled or pushed down, the lever rotates on the fulcrum causing the other side to raise



<http://klight.wikispaces.com/AP+Physics>  
<http://en.wikipedia.org/wiki/Lever>

# Spring

- A spring is a mechanical device used to store energy. When the ball hits the spring, kinetic energy is converted into elastic potential energy, which is soon converted back into kinetic energy forcing the ball in the opposite direction



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[http://en.wikipedia.org/wiki/Spring\\_\(device\)](http://en.wikipedia.org/wiki/Spring_(device))



# Pulley

- A pulley can be used to raise an object. A downward force on one string causes an upward force on the other string.



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<http://en.wikipedia.org/wiki/Pulley>