



## GATEWAY REGION YMCA CRATER EXPERIMENT

Isaac Newton's second law states that an object's force is dependent on its mass and acceleration. We learned about gravity which is the same for all objects. Therefore, if we drop two objects from the same height they will have forces related to the object's mass.

### Supply List

- Two similar sized objects that have different mass (Sphere shaped preferred)
- Can make the light version out of paper
- Bowl
- Powder (Sugar, flour, dirt)

### Instructions

1. Drop the two objects from the same height
2. Notice the speed - did they hit the bowl at the same time?
3. Compare the crater size made in the powder - which seemed to have more force?

For more information about this activity visit:  
[gwymca.org/blog/steam-activity-crater-experiment](http://gwymca.org/blog/steam-activity-crater-experiment)



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