



**Virginia Region II Annual Teacher Night
at Jefferson Lab 2025**

Activity Title: **Newton's Laws of Motion Station Lab**

Type: Student Activity

Grade Level: Grade 8

Time Allotment: 1 hr

Objectives with Correlated SOLs:

PS.8 The student will investigate and understand that work, force, and motion are related. Key ideas include
b) motion is described by Newton's laws.

Essential Knowledge and Practices:

- identify situations that illustrate each of Newton's Laws of Motion.
- apply an understanding of scientific principles and laws to describe and predict motion.
- construct and use models and simulations to represent and/or explain Newton's Laws of Motion.
- design and conduct an investigate regarding Newton's Second Law of Motion to show the relationship among force, mass and acceleration.
- explain how force, mass, and acceleration are related.
- apply Newton's Third Law of motion to design a solution to a problem involving the motion of two colliding objects.
- state the direction of motion after the interaction of two objects.

Materials List (including equipment):

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|-------------------------------|---------------------|
| • Large Wooden Blocks | • Golf Tee |
| • Small plastic bathroom cups | • Embroidery Hoop |
| • 3 x 5 index cards | • Newton's Cradle |
| • Hole Reinforcements | • Hot Wheels Track |
| • Cotton string | • Hot Wheels Car |
| • Glass Jar | • Medium Washers, 4 |

Teacher Contact Information:

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