“Motion Commotion” is an interactive assembly program with dance, disability awareness and curriculum based subject matter centered on Newton’s Three Laws of Motion. The program demonstrates such factors as force, acceleration and opposing reactions through the use of The Dancing Wheels Company’s highly technical wheelchairs used for mobility and dance. The program also touches on the science behind wheelchair construction, development and the technologies that go into the composition of the chair’s metals, wheel circumference and design elements. The main objectives of our Action Reaction and other assembly programs are to inspire, entertain, and educate. It is our goal to help students recognize their abilities while learning to respect the abilities of others as well as impart a message that individual dreams and personal goals can be achieved through perseverance, hard work and belief in oneself.

Objectives

1. **Experience** examples of Newton’s Three Laws of Motion through dance.
2. **Interact** verbally by asking questions about the presentation.
3. **Create** physical scenarios to demonstrate Newton’s Laws.
A teacher’s guide which includes pre-educational activities with Newton’s Laws as well as general information on the Dancing Wheels Company will be provided. Activities include dominoes lab, egg and coin lab and car crash simulation study.

Students can reflect on the diversity of dance in general and also on their understanding of the capabilities and achievements of people of all abilities within dance. Ask students, “What other examples can you think of that demonstrate Newton’s Laws in everyday life?” Have students try to create movements with their bodies that demonstrate the Laws of Inertia, Acceleration, and Reaction.

**Vocabulary**

**Acceleration**: Force is equal to change in momentum per change in time  
**Inertia**: Every object will remain at rest or in uniform motion in a straight line unless acted upon by an external force  
**Physically Integrated**: Physical is associated with the body and movement and integrated means bringing or pulling together  
**Reaction**: For every action there is an equal and opposite reaction  
Sir Isaac Newton: A mathematician and physicist who is known as one of the foremost scientific intellects of his time

**About The Dancing Wheels Company**

The Dancing Wheels Company has had the distinct honor to be in operation for more than 30 years. We have reached over 5 million people since our inception with a long and illustrious performance history in schools, universities, concert halls, libraries and hospitals across the nation. With a composition of dancers representing a spectrum of age, ethnicity, gender and physical abilities, The Dancing Wheels Company has the unique capability to engage children and adults with and without disabilities on a personal level. We say that if dance is a celebration of the human spirit, it is best expressed by people of all abilities.

**Resources**

- The Dancing Wheels Company’s Website: [www.dancingwheels.org](http://www.dancingwheels.org)
- Newton’s Laws of Motion: [www.grc.nasa.gov/WWW/k-12/airplane/newton.html](http://www.grc.nasa.gov/WWW/k-12/airplane/newton.html)

**About the Center for Arts-Inspired Learning**

*Through a balance of demonstration and audience participation, the Center for Arts-Inspired Learning teaching artist performances and workshops introduce students to an art form, support various curricular areas, and inject excitement and wonder into the school day.*