

















## ALGEBRA (Grades 6-12)

- Understand patterns, relations, and functions
- Represent and analyze mathematical situations

## MEASUREMENT (Grades 6-12)

- Understand and use measurable attributes of objects
- Apply appropriate techniques, tools, and formulas

## DATA ANALYSIS (Grades 6-12)

- Select, create, and use appropriate graphical representations of data
- Develop and evaluate inferences and predictions that are based on data

## MATHEMATICS PROCESS STANDARDS

- Reasoning
- Problem Solving
- Representing Mathematical Relationships
- Connections to Science and the Outside World
- Communication of Mathematics and Science

## References for all Four Posters:

Copies of these materials, along with additional information on Newton's Laws of Motion and Law of Gravitation, are available on the Swift Mission Education and Public Outreach Web site:

<http://swift.sonoma.edu/>

- NASA Web sites:  
NASA's official Web site - <http://www.nasa.gov>  
Swift Satellite - <http://swift.gsfc.nasa.gov>
- NASA Education Resources:  
The Space Place - <http://spaceplace.nasa.gov>  
Imagine the Universe! - <http://imagine.gsfc.nasa.gov>
- NASA's Central Operation of Resources for Educators (CORE):  
<http://education.nasa.gov/edprograms/core/home/index.html>  
Check out these videos:  
"Liftoff to Learning: Newton in Space" (1992), \$15.00  
"Flight Testing Newton's Laws" (1999), \$24.00
- NASA's Space Science Education Resource Directory:  
<http://teachspacescience.org>
- Newton's Laws of Motion:  
<http://www-istp.gsfc.nasa.gov/stargaze/Snewton.htm>  
<http://www.grc.nasa.gov/WWW/K-12/airplane/newton.html>  
[http://www.grc.nasa.gov/WWW/K-12/TRC/Rockets/rocket\\_principles.html](http://www.grc.nasa.gov/WWW/K-12/TRC/Rockets/rocket_principles.html)

- Newton's Law of Gravitation:

*<http://csep10.phys.utk.edu/astr161/lect/history/newtongrav.html>*

- Newton in the Classroom:

*<http://www.physicsclassroom.com/Class/newtlaws/newtltoc.html>*

*<http://www.glenbrook.k12.il.us/gbssci/phys/Class/newtlaws/u2l1a.html>*

- The Nine Planets:

*<http://seds.lpl.arizona.edu/nineplanets/nineplanets/nineplanets.html>*

*<http://seds.lpl.arizona.edu/nineplanets/nineplanets/data1.html>*