

Name: _____
Date: _____
Period: _____

Olympics & Physics Poster

You have chosen any Olympic sport to research. As a final product of this research, you will create a poster (no larger than 24" X 32") displaying how Newton's Laws apply to this sport. The poster will be a demonstration that you understand and can apply Newton's Laws of motion to complex actions. It must also demonstrate that you can apply the math on Velocity, Momentum, Acceleration, and Forces to this sport.

Posters Must Include:

1. A title.
2. Graphics depicting the important skills of the sport.
3. Definitions of Newton's Laws of Motion.
4. Applications of Newton's Laws to the sport.
5. Mathematical Examples of the applications.
6. Free-Body Diagrams showing how forces act on the athletes or their equipment.

Grading:

Title: Creativity (5pts) and Accuracy (5pts)	_____
Graphics of Sport: Appropriateness (10pts)	_____
Definitions of 3 laws (10 pts)	_____
Applications: Accuracy & Difficulty (30 pts)	_____
Math: Accuracy, neatness, difficulty (20 pts)	_____
Free-body Diagrams (20 pts)	_____
Total Points	_____

Resources to help you:

Web pages:

<http://www-spf.gsfc.nasa.gov/stargaze/Snewton.htm>
<http://www.ic.arizona.edu/~nats101/newton.html>
<http://www.aloha.com/~isaac/3laws/3lmid.htm>
<http://2002.uen.org/>
http://www.nbcolympics.com/x/f/frame.htm?u=/news/nbcomain_front.asp

Power Standard: Analyze the factors (such as mass and magnitude of forces) which influence the motion of objects.

Rubric:

	Exceeds Standard	Masters Standard	Progressing Toward Standard	Needs Revision
Focus	All parts of the poster are addressing the stated objective	Title, diagrams, and Information clearly addresses stated objective	Poster makes an effort to address stated objective	Poster needs additional effort to address stated objective
Design	All of Meets Goal plus information flow leads reader to full understanding	Design allows reader to find information easily Color & Style enhance presentation	Design is disorganized or color & style fail to enhance presentation	Poster poorly organized or sloppy
Information	Research shows detailed information and interpretation to improve the reader's understanding	Complete, well researched, written in your own words.	Missing information or poorly written	Too much information is missing or poorly written
Graphics	All of meets goal plus the graphics are organized to connect location and conditions	Graphics are self-created or sourced pictures and provide viewer with an understanding of both location and conditions on the world	Graphics are self-created or sourced pictures and provide viewer with an understanding of either location or conditions on the world	Graphics are self-created or pictures