

Category and Score	Does Not Meet(0)	Partially Meets(2)	Meets(3)	Exceeds(4)	Score
Title and objectives	No title or objectives included	Includes name of the lab without specifying the goals or the scientific principle being tested	Includes title and specifies the goals and objectives briefly	Includes the title and clearly specifies lab goal and provides sufficient information with the title and clear purposes ,important ideas that led to the design of the experiment	4
Hypothesis	Not clear	Somewhat clear statement but no specific details	Clear statement but lacks depth	Clear statement of fact utilizing higher order thinking including if, then etc.	4
Data/Graphs	Important data elements missing. No Graph/diagram	Graph/diagram with errors.	Graph diagrams and data elements are presented, but minute errors	Clear and neat graph/diagram, with no errors and units included.	4
Analysis and calculations	Not defined, no calculations included	Defined but not clear whether right or wrong, includes at least one data descriptions and calculations	Clearly defined but has not included all data required	Clearly defined whether right or wrong with explanations, detailed data descriptions, correct calculations	4
Total Score					/16

Conclusion

After finding the relation between acceleration of the cart and the angle of inclination, can you identify which component of the resultant force vector contributes to the motion of the cart along the inclined plane.

Teacher Page

This WebQuest would be greatly useful for students to identify the force components on a body accelerating down an inclined plane. Resources that would help teachers WebQuest maker-<http://zunal.com/Next-generation-Science-standards-https://www.nextgenscience.org/Alabama-Learning-Exchangehttps://alex.state.al.us/browseSC.php>

Standards

Educational Standards covered-ACOSACOS Physics 1: Investigate and analyze, based on evidence obtained through observation or experimental design, the motion of an object using both graphical and mathematical models(e.g., creating or interpreting graphs of displacement, velocity, and acceleration versus time graphs for one- and two-dimensional motion; solving problems using kinematic equations for the case of constant acceleration) that may include descriptors such as distance, displacement, velocity and acceleration.ACOS Physics 2: Identify forces in a system and apply Newton's laws graphically by using models such as free-body diagrams to explain how the motion of an object is affected, ranging from simple to complex, and including circular motion. ACOS Physics 2a: Use mathematical computations to derive simple equations of motion for various systems using Newton's second law. ACOS Physics 2b: Use mathematical computations to explain the nature of action-reaction force pairs (e.g., tension, friction, normal) related to Newton's second and third laws, respectively.NGSSHS-PS-1. Analyze data to support the claim that Newton's second law of motion describes the mathematical relationships among the net forces on a macroscopic object, its mass, and its acceleration.CCRS Anchor Standard 5. “Make strategic use of digital media and visual display of data to express information and enhance understanding of presentations.“SL.11.33 and SL.12.33. Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest. [SL.11-12.5]

Credits

I would like to thank our course instructor Ms. Stephens and Dr. Sunal for helping and guiding me to develop this WebQuest. I would also like to acknowledge the creators of the following websites :-(1) Physicsclassroom(2) Hyper Physics(3) Phet Colorado(4) Khan academy(5) ASIM labs

Other