

Day of Week	Date	Skill	Plan
M	11/10/2013	Written objectives located at bottom of lesson plan Unit 3: Motion & Force Psc. 1.1.1-2 & 2.1.1-3 U Q- 1, 2, 3, 4, 5 CQ 1, 2, 3, 4, 5	Entry: Complete Calculating Forces sheet. Review: Displacement/distance, speed/velocity, acceleration review problems. Discuss: Motion & Forces: Newton's 1 st & 2 nd Laws- Forces & Friction: sliding, rolling, static, fluid[air resistance] Gravity- mass/weight; freefall; projectile motion; Centripetal Force DEMOS: Parachutes, marbles, freefall, freefall with Surface area change Classwork/Homework: practice problems- Forces, friction, gravity assess as work
T	11/11/2013 Holiday	Psc. U Q- CQ	Entry: Review: TEST/Quiz: Discuss: Classwork/Homework: Project:
W	11/12/2013	Psc. 1.1.1-2 & 2.1.1-3 U Q- 1, 2, 3, 4, 5 CQ 1, 2, 3, 4, 5	Entry: begin problems forces Review Homework: Forces & Friction Quiz/Test: Forces & Friction [summative] Discuss: Motion & Forces: Newton's 3 rd Law- Action/Reaction; Momentum Discuss: Motion&Force: Story boards and graphs of motion [formative assessment] Classwork/Homework: Momentum 1-explain how momentum is affected if you change the mass or speed of the object. 2- list 5 real world examples of how force and momentum are related Force Practice problems: Momentum & Acceleration
H	11/13/2013	Psc. 2.1.1-2 UQ 2,4,5 CQ 1, 5	Entry: opening assignment review of weeks math problems: displacement, speed, velocity, acceleration, gravity, momentum. Decide which area you need most work. Work in pairs based on needs. Review Homework: Momentum samples Quiz/Test: Discuss: Motion&Force: Review all types word problems [formative assessment] Classwork/Homework: Practice Problem math review. Calculations ppt then practice problems. Ch 3- Study guide

F 11/14/2013	Unit: Motion & Force All Unit: Energy Psc. 3.1.1-2 Ess? 1, UQ 1,2 CQ 1, 2	Entry: Answer any questions before test Review Homework: Quiz/Test: Motion & Force Unit Test [Summative Assessment] Discuss: Energy: Types, Forms and means of energy transfer; Kinetic vs Potential Ch4.1 Classwork/Homework: Following test: Begin to Complete 4.1 notes using your note packet. Kinetic & Pc
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Psc.1.1 Understand motion in terms of speed, velocity, acceleration, and momentum.

PSc.1.1.1 Explain motion in terms of frame of reference, distance, and displacement.

PSc.1.1.2 Compare speed, velocity, acceleration, and momentum using investigations, graphing, scalar quantities, and vector quantities.

Motion & Force

PSc.1.2 Understand the relationship between forces and motion.

PSc.1.2.1 Explain how gravitational force affects the weight of an object and the velocity of an object in freefall.

PSc.1.2.2 Classify frictional forces into one of four types: static, sliding, rolling, and fluid.

PSc.1.2.3 Explain forces using Newton's three laws of motion.

Essential Question

How are force and motion related?

Unit Questions

- 1- How can I explain the law of conservation of momentum (conceptually and mathematically) with a car crash?
- 2- How do different forces work to affect an object's motion?
- 3- How can I understand the relationship (mathematically and conceptually) between velocity, acceleration,
- 4- Why do you only feel the force of gravity when you are falling?
- 5- When do objects "feel" a force acting on them?

Content Questions

- 1- What is the law of conservation of momentum?
- 2- What is the relationship between velocity, acceleration, and force?
- 3- What are the equations for speed, velocity, acceleration, and force?
- 4- How can I solve for each part of each equation listed in question 2?
- 5- What is gravity?

Psc.3.1 Understand types of energy, conservation of energy and energy transfer.

Energy: Conservation and Transfer	PSc.3.1.1 Explain thermal energy and its transfer.
	PSc.3.1.2 Explain the law of conservation of energy in a mechanical system in terms of kinetic energy, potential energy and heat.
	PSc.3.1.3 Explain work in terms of the relationship among the applied force to an object, the resulting displacement of the object, and the energy transferred to an object.
	PSc.3.1.4 Explain the relationship among work, power and simple machines both qualitatively and quantitatively.
Essential Questions	<ol style="list-style-type: none">1 Why is energy so important to us?2 What would the world be like without machines?3 How are waves important in our everyday lives?
Unit Questions	<ol style="list-style-type: none">1 Why is energy conservation so important?2 What are the different types of energy and how does energy transfer work?3 Why is there no such thing as a 100% efficient machine?4 What is the relationship between work, power and energy?5 What exactly is a wave and what does it need to do what it does?6 What are the different types of waves?7 What are the different characteristics of waves?
Content Questions	<ol style="list-style-type: none">1 What are some ways to conserve energy?2 What are the differences between Kinetic and potential energy?3 How do you solve for work, power and energy?4 How do you solve for machine efficiency?5 What are the similarities between the 2 main types of waves?6 What are the differences/similarities between light and sound?7 What are the differences between reflection, refraction, diffraction, and interference?

potential Energy -Practice sheet.

and force?

