

## Scope and Sequence

Subject/Title of Unit	Grade	6 Weeks	Estimated Time Frame (# of days)
IPC/Unit 4 Motion and Energy	10-11	4th Six Weeks	6 weeks and 3 days
TEKS/Student Expectations		Examples/Specifications:	
<p>(4) Science concepts. The student knows concepts of force and motion evident in everyday life. The student is expected to:</p> <p>(A) calculate speed, momentum, acceleration, work, and power in systems such as in the human body, moving toys, and machines;</p> <p>(B) investigate and describe applications of Newton's laws such as in vehicle restraints, sports activities, geological processes, and satellite orbits;</p> <p>(C) analyze the effects caused by changing force or distance in simple machines as demonstrated in household devices, the human body, and vehicles; and</p> <p>(D) investigate and demonstrate mechanical advantage and efficiency of various machines such as levers, motors, wheels and axles, pulleys, and ramps.</p> <p>(6) Science concepts. The student knows the impact of energy transformations in everyday life. The student is expected to:</p> <p>(A) describe the law of conservation of energy;</p> <p>(B) investigate and demonstrate the movement of heat through solids, liquids, and gases by convection, conduction, and radiation;</p> <p>(H) analyze the effects of heating and cooling processes in systems such as weather, living, and mechanical</p>		<p>4 A and B- discuss the affects of Newton's Law's of motion on the human body, toys, and machines</p> <p>4 C and D – analyzes the affects caused by changing force or distance and investigates mechanical advantage and the efficiency of machines</p> <p>6A – describes the of conservation of energy</p> <p>6B and H- investigates and demonstrates the movement of heat through materials and analyzes the affects of heating and cooling processes in weather, living, and mechanics.</p>	
Language of Instruction:		Instructional Resources/Textbook Correlations:	

36-156

**Weblinks/Other Resources:**

**Evaluation/External Assessment/Local Assessment:**

**Best Instruction Timeline:**

Teacher/ Testbank Tests  
Labs and Quizzes/ projects

2 days describing motion  
1 day acceleration  
4 days motion and forces  
2 days newton's second law  
2 days gravity  
3 days Newton's 3<sup>rd</sup> Law  
3 days The nature of energy  
4 days conservation of energy  
2 days work  
2 days using machines  
3 days simple machines  
2 days temperature and heat  
2 days transferring Thermal enrgy  
3 days using heat