

EDUCATIONAL STANDARDS ALIGNMENT

GRADES 3-5 NEXT GENERATION SCIENCE STANDARDS*	ACTIVITY: Asteroids In Orbit
3-PS2-1 Motion and Stability: Forces and Interactions Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object.	X
3-PS2-2 Motion and Stability: Forces and Interactions Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion.	X
3-5-ETS1-2 Engineering Design: Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.	X
4-PS3-3 Energy: Ask questions and predict outcomes about the changes in energy that occur when objects collide.	X
4-PS3-1 Energy: Use evidence to construct an explanation relating the speed of an object to the energy of that object.	X

GRADES 6-8 NEXT GENERATION SCIENCE STANDARDS*	ACTIVITY: What Are Asteroids?	ACTIVITY: Making A Splash	ACTIVITY: Working Together
MS-ESS3-2 Earth and Human Activity: Analyze and interpret data on natural hazards to forecast future catastrophic events and inform the development of technologies to mitigate their effects.			X
MS-ESS1-4 Earth's Place in the Universe: Construct a scientific explanation based on evidence from rock strata for how the geologic time scale is used to organize Earth's 4.6-billion-year-old history.	X		
MS-PS2-4 Motion and Stability: Forces and Interactions Construct and present arguments using evidence to support the claim that gravitational interactions are attractive and depend on the masses of interacting objects.			X
MS-PS2-1 Motion and Stability: Forces and Interactions Apply Newton's Third Law to design a solution to a problem involving the motion of two colliding objects.		X	
MS-PS3-1 Energy: Construct and interpret graphical displays of data to describe the relationships of kinetic energy to the mass of an object and to the speed of an object.		X	
MS-PS3-5 Energy: Construct, use, and present arguments to support the claim that when the kinetic energy of an object changes, energy is transferred to or from the object.		X	
NATIONAL CURRICULUM STANDARDS FOR SOCIAL STUDIES**			
Thematic Strand 9: Global Connections Social studies programs should include experiences that provide for the study of global connections and interdependence.			X

* NGSS Lead States. 2013. *Next Generation Science Standards: For States, By States*. Washington, DC: The National Academies Press.

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GRADES 9-12 NEXT GENERATION SCIENCE STANDARDS*	ACTIVITY: Tracing The Past	ACTIVITY: Defending The Future
HS-ESS1-6 Earth's Place in the Universe: Apply scientific reasoning and evidence from ancient Earth materials, meteorites, and other planetary surfaces to construct an account of Earth's formation and early history.	X	
HS-ESS2-2 Earth's Systems: Analyze geoscience data to make the claim that one change to Earth's surface can create feedbacks that cause changes to other Earth systems.	X	
HS-ESS3-1 Earth and Human Activity: Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.	X	
HS-PS2-3 Motion and Stability: Forces and Interactions Apply scientific and engineering ideas to design, evaluate, and refine a device that minimizes the force on a macroscopic object during a collision.		X
HS-ETS1-1 Engineering Design: Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.		X
HS-ETS1-3 Engineering Design: Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics as well as possible social, cultural, and environmental impacts.		X
NATIONAL CURRICULUM STANDARDS FOR SOCIAL STUDIES**		
Thematic Strand 3: People, Places, and Environments Social studies programs should include experiences that provide for the study of people, places, and environments.		X
Thematic Strand 9: Global Connections Social studies programs should include experiences that provide for the study of global connections and interdependence.		X

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