

**AAAS Benchmarks
Middle School Grades**

	A Classroom Solar System	Planetary Distances on the Playground	Modeling Sizes of Planets	Looking Inside Planets	Terra Bagga	Space Travel Guide	Great Red Spot Pinwheel	The Jovian System: A Scale Model	Rings and Things	The Moons of Jupiter	Phases of Charon
The Nature of Science											
<i>1A: The Scientific World View</i>											
<i>1B: Scientific Inquiry</i>											
The Nature of Mathematics											
<i>2A: Patterns and Relationships</i>											
The Nature of Technology											
<i>3A: Technology and Science</i>					X						
<i>3B: Design and Systems</i>											
The Physical Setting											
<i>4A: The Universe</i>	X	X	X			X		X			X
<i>4B: The Earth</i>			X	X	X						
<i>4D: Structure and Matter</i>										X	
<i>4E: Energy Transformation</i>							X				
<i>4F: Motion</i>							X				
<i>4G: Forces of Nature</i>					X						
Historical Perspectives											
<i>10A: Displacing the Earth from the Center</i>											
Common Themes											
<i>11D: Scale</i>			X					X			
Habits of Mind											
<i>12D: Communication Skills</i>						X					

**NCTM Math Standards
Middle School Grades**

	Numbers and Operations	Algebra	Geometry	Measurement	Data Analysis and Probability
A Classroom Solar System					
Planetary Distances on the Playground	X				
Modeling Sizes of Planets					
Looking Inside Planets	X			X	
Terra Bagga					
Space Travel Guide					
Great Red Spot Pinwheel					
The Jovian System: A Scale Model	X				
Rings and Things					
The Moons of Jupiter					X
Phases of Charon			X		
Photosynthesis at Saturn?		X			
Distance = Rate x Time		X			
Happy Landings		X			X
Spacecraft Speed	X	X			
Strange New Planet					
The Jovian Basketball Hoop					
Astro-Chronology					
Patterns and Fingerprints		X	X		
Using Spectral Data to Explore Saturn and Titan					X
Are All Asteroids' Surfaces the Same Age?				X	
Clay Planets				X	

	Photosynthesis at Saturn?	Distance = Rate x Time	Happy Landings	Spacecraft Speed	Strange New Planet	The Jovian Basketball Hoop	Astro-Chronology	Patterns and Fingerprints	Using Spectral Data to Explore Saturn and Titan	Are All Asteroids' Surfaces the Same Age?	Clay Planets
Content Standard A: Science as Inquiry											
<i>Abilities Necessary to Do Scientific Inquiry</i>			X		X	X			X	X	
<i>Understandings about Scientific Inquiry</i>					X					X	
Content Standard B: Physical Science											
<i>Properties and Changes of Properties in Matter</i>			X								
<i>Motions and Forces</i>		X	X								
<i>Transfer of Energy</i>	X					X			X		
<i>Energy Appears in Different Forms, and Can Change</i>											
Content Standard C: Life Science											
<i>Regulation and Behavior</i>	X										
<i>Structure and Function in Living Systems</i>								X			
Content Standard D: Earth + Space Science											
<i>Objects in the Sky</i>											
<i>Earth in the Solar System</i>				X					X	X	X
<i>Structure of the Earth System</i>			X		X				X		
Content Standard E: Science + Technology											
<i>Understandings about Science and Technology</i>				X	X		X				
<i>Abilities of Technological Design</i>						X					
Content Standard G: History + Nature of Science											
<i>Science as Human Endeavor</i>					X		X				
<i>Nature of Science</i>					X						
<i>Historical Perspectives</i>							X				