

Macro Monitoring

NEXT GENERATION SCIENCE STANDARDS / MISSOURI LEARNING STANDARDS

PHYSICAL SCIENCE		Grade 5	Grade 6-8	Grade 9-12
PS1 - Matter and Its Interactions	A - Structure and Properties of Matter	5.PS1.A.1	6-8PS1.A.1	9-12.PS1.A.1
		5.PS1.A.2	6-8PS1.A.2	9-12.PS1.A.2
			6-8PS1.A.3	9-12.PS1.A.3
			6-8PS1.A.4	9-12.PS1.A.4
				9-12.PS1.A.5
	B - Types of Interactions of Matter	5.PS1.B.1	6-8PS1.B.1	9-12.PS1.B.1
		5.PS1.B.2	6-8PS1.B.2	9-12.PS1.B.2
		5-PS1-3		9-12.PS1.B.3
	C - Nuclear Process			9-12.PS1.C.1
PS2-Motion & Stability: Forces & Interactions	A- Forces and Motion		6-8PS2.A.1	9-12.PS2.A.1
			6-8PS2.A.2	9-12.PS2.A.2
				9-12.PS2.A.3
	B-Types of Interaction	5.PS2.B.1	6-8PS2.B.1	9-12.PS2.B.1
			6-8PS2.B.2	9-12.PS2.B.2
PS3 - Energy			6-8.PS2.B.3	HS-PS2.B.2
	A- Definitions of Energy		6-8PS3.A.1	9-12.PS3.A.1
			6-8PS3.A.2	9-12.PS3.A.2
			6-8PS3.A.3	9-12.PS3.A.3
			6-8PS3.A.4	
	B- Conservation of Energy and Energy Transfer		6-8.PS3.B.1	9-12.PS3.B.1
	C- Relationship Between Energy and Forces			9-12.PS3.C.1
	D- Energy in Chemical Process and Everyday	5.PS3.D.1		
PS4 - Waves and Their Applications in technologies for Information Transfer	A- Wave Properties	5.PS4.A.1	6-8PS4.A.1	9-12.PS4.A.1
			6-8PS4.A.2	HS-PS4-2
			MS-PS4-3	9-12.PS4.A.2
	B- Electromagnetic Radiation PS4			9-12.PS4.B.1
				9-12.PS4.B.2
	C- Information Technologies and Instrumentation			

LIFE SCIENCE		Grade 5	Grade 6-8	Grade 9-12
LS1 - From Molecules to Organisms: Structure and Processes	A- Structure and Function	5.LS1.A.1	6-8.LS1.A.1	9-12.LS1.A.1
			6-8.LS1.A.2	9-12.LS1.A.2
			6-8.LS1.A.3	9-12.LS1.A.3
			6-8.LS1.A.4	
	B- Growth and Development of Organisms		6-8.LS1.B.1	9-12.LS1.B.1
			6-8.LS1.B.2	
	C-Organization for Matter & Energy Flow in Organisms	5.LS1.C.1	6-8.LS1.C.1	9-12.LS1.C.1
			MS-LS1-7	9-12.LS1.C.2
			MS-LS1-8	HS-LS1-6
				9-12.LS1.C.3
	D- Information Processing			
LS2-Ecosystems: Interactions, Energy, & Dynamics	A- Interdependent Relationships in Ecosystems		6-8.LS2.A.1	9-12.LS2.A.1
			6-8.LS2.A.2	HS-LS2-7
				HS-LS2-8
	B-Cycles of matter and Energy Transfer in Ecosystems	5.LS2.B.1	6-8.LS2.B.1	9-12.LS2.B.1
				9-12.LS2.B.2
				9-12.LS2.B.3
	C-Ecosystem Dynamics, Functioning and Resilience		6-8.LS2.C.1	9-12.LS2.C.1
			6-8.LS2.C.2	9-12.LS2.C.2
				HS-LS2-7
				HS-LS2-8
LS3 - Heredity: Inheritance & Variation of Traits	A- Inheritance of Traits			9-12.LS3.A.1
	B- Natural Selection			9-12.LS3.B.1
				9-12.LS3.B.2
				9-12.LS3.B.3
				9-12.LS3.B.4
	C- Adaptation			
	D- Biodiversity and Humans			
LS4 - Biological Evolution: Unity and Diversity	A- Evidence of Common Ancestry and Diversity			9-12.LS4.A.1
				9-12.LS4.A.2
	B– Natural Selection			9-12.LS4.B.1
				9-12.LS4.B.2
	C- Adaption			9-12.LS4.C.1
				9-12.LS4.C.2
				9-12.LS4.C.3

<u>EARTH and SPACE SCIENCE</u>		Grade 5	Grade 6-8	Grade 9-12
ESS1 - Earth's Place in the Universe	A- The Universe and its Stars	5.ESS1.A.1	6-8.ESS1.A.1	9-12.ESS1.A.1
			6-8.ESS1.A.2	9-12.ESS1.A.2
			6-8.ESS1.A.3	9-12.ESS1.A.3
	B- Earth and the Solar System	5.ESS1.B.1	6-8.ESS1.B.1	9-12.ESS1.B.1
		5.ESS1.B.2	6-8.ESS1.B.2	
	C- The History of Planet Earth		6-8.ESS1.C.1	9-12.ESS1.C.1
				9-12.ESS1.C.2
ESS2 - Earth's Systems	A- Earth Materials and Systems	5.ESS2.A.1	6-8.ESS2.A.1	9-12.ESS2.A.1
			6-8.ESS2.A.2	9-12.ESS2.A.2
				9-12.ESS2.A.3
				9-12.ESS2.A.4
	B- Plate Tectonics and Large-Scale Systems		6-8.ESS2.B.1	
	C- The Role of Water in Earth's Surface Processes	5.ESS2.C.1	6-8.ESS2.C.1	9-12.ESS2.C.1
			6-8.ESS2.C.2	
			6-8.ESS2.C.3	
	D- Weather and Climate			9-12.ESS2.D.1
	E- Biogeology			9-12.ESS2.E.1
ESS3 - Earth and Human Activity	A- Natural Resources		6-8.ESS3.A.1	9-12.ESS3.A.1
				9-12.ESS3.A.2
	B- Natural Hazards		6-8.ESS3.B.1	
	C- Human Impacts on Earth's Systems	5.ESS3.C.1	6-8.ESS3.C.1	9-12.ESS3.C.1
			6-8.ESS3.C.2	9-12.ESS3.C.2
	D-Global Climate Change		6-8.ESS3.D.1	9-12.ESS3.D.1
				9-12.ESS3.D.2
<u>ENGINEERING TECHNOLOGY and the APPLICATION OF SCIENCE</u>		Grade 5	Grade 6-8	Grade 9-12
ETS1 - Engineering Design	A- Defining and Delimiting Engineering Problems	5.ETS1.A.1	6-8.ETS1.A.1	9-12.ETS1.A.1
		5.ETS1.B.1	6-8.ETS1.B.1	9-12.ETS1.A.2
	B- Developing Possible Solutions		6-8.ETS1.B.2	9-12.ETS1.B.1
			6-8.ETS1.B.3	9-12.ETS1.B.2
		5.ETS1.C.1		
	C- Optimizing the Solution Process			