

Active Physics Correlation to the Michigan Science Framework																		
Active Physics Chapters	C	C	C	H	H	H	M	M	M	P	P	P	S	S	S	T	T	T
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3

<b>MI Curr Framework Standard</b>																		
<b>I. Constructing New Scientific Knowledge</b>																		
I.1 Develop questions/problems	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
I.2 Suggest empirical tests	X			X								X						
I.3 Design and conduct investigations	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
I.4 Diagnose failures	X	X			X	X												
I.5 Assemble systems	X	X				X												
I.6 Recognize/expl. limitations of devices		X								X								
I.7 Gather/synthesize information	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
I.8 Discuss in groups	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
I.9 Reconstruct previous knowledge	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<b>II. Reflecting on Scientific Knowledge</b>																		
II.1 Justify plans or explanations		X	X				X	X		X		X				X		
II.2 Limitations of scientific knowledge		X	X				X	X	X	X		X						X
II.3 Common themes in real-world contexts	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X
II.4 Historical development		X							X		X	X						X
II.5 Alternative resource use and disposal				X	X													
II.6 Historical, political, and social factors	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	
<b>III. Using Scientific Knowledge in Life Science</b>																		
<b>IV. Using Scientific Knowledge in Physical</b>																		

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Science																		
IV.1 Matter and Energy																		
IV.1.1 Mass, Volume, Density																		
IV.1.2 Families of elements																		
IV.1.3 Risk vs. benefit of materials																		
IV.1.4 Structure of atoms																		
IV.1.5 Conversion & conservation of energy		X		X	X	X							X	X	X			
IV.1.6 Heat transfer				X														
IV.1.7,8 Electric circuits	X	X			X	X	X		X								X	X
IV.2 Changes in Matter																		
IV.2.1 Conservation of mass (phys & chem chg)																		
IV.2.2 Nuclear changes										X								
IV.2.3 Energy chains		X		X	X	X							X	X	X			
IV.2.4 Manufacture and recycle of materials																		
IV.2.5 Chemical changes (Active Physics deals with only physical changes, except for P1.)																		
IV.2.6 Contrast phys, chem, nucl changes (Active Physics deals with only physical changes, except for P1.)																		
IV.2.7 Energy chg. assoc. w/phys & chem chg (Active Physics deals with only physical changes, except for P1.)																		
IV.2.8 Magn. of energy in phys, chem, nucl chg (Active Physics deals with only physical changes, except for P1.)																		
IV.3 Motion of Objects																		
IV.3.1 Speed and direction of objects											X		X	X	X	X	X	X
IV.3.2 Newton's 3rd Law											X		X					
IV.3.3 Force and motion											X	X	X	X			X	X
IV.3.4 Energy conversions in machines													X	X	X			
IV.4 Waves and																		

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Vibrations																		
IV.4.1 Sound characteristics/properties	X						X											
IV.4.2 Operation of sound recording			X															
IV.4.3 Colors and wavelengths	X		X															X
IV.4.4 Perception of color	X																	
IV.4.5 Technological application of waves	X		X				X		X									
IV.4.6 Properties of waves	X	X	X				X					X						
IV.4.7 Interaction of waves			X									X						
IV.4.8 Doppler effect			X															X
V. Using Scientific Knowledge in Earth Science																		
V.1 The Geosphere																		
V.2 The Hydrosphere																		
V.3 The Atmosphere and Weather																		
V.4 The Solar System, Galaxy and Universe																		
V.4.1 Stars and star systems																		
V.4.2 Sky observations																		
V.4.3 Solar system												X						
V.4.4 Earth seasons				X														
V.4.5 Stellar evolution																		
V.4.6 The universe																		