

"X" = Coverage Secondary concept of the activity or problem. Students gain a basic understanding or introduction of the concept. "XX" = In-depth Coverage Primary concept that is the focus of the activity or problem. Students gain thorough understanding of the concept. Coverage in student edition and/or Teacher Edition supports the development of the	Communication			Home			Medicine			Predictions			Sports			Transportation		
	C1	C2	C3	H1	H2	H3	M1	M2	M3	P1	P2	P3	S1	S2	S3	T1	T2	T3
i. Formulating hypotheses	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
j. Communicating	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
8. Use mathematical models, simple statistical models, and graphical models to express patterns and relationships determined from sets of scientific data	XX		XX	XX	XX		XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
Example: calculate mean, median, and mode from sample data	XX		XX	XX	XX		XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
9. Solve for unknown quantities by manipulating variables.	X			XX	XX	XX	XX	X	X	X	XX	X	XX	XX	XX	X	XX	XX
Example: earthquake wave amplitudes																		
10. Use written and oral communication skills to present and explain scientific phenomena and concepts individually or in collaborative groups using technical and non-technical language.	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
Examples: laboratory reports, journal entries, computer-based slide show presentations, daily log reports, student project presentations	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
11. Choose appropriate technology to retrieve relevant information from the Internet such as electronic encyclopedias, indices, and databases.	X	X	X	X	XX	X				X	X	X	XX	X	XX	XX	XX	XX
12. Analyze the advantages and disadvantages of different forms of technology in studies of near and distant space			X									X						
13. Practice responsible use of technology systems, information, and software such as following copyright laws.																		
14. Evaluate technology-based options for lifelong learning in earth and space studies.																		
Examples: Internet usage, online/distance learning courses, databases, real-time photographs																		
15. Interpret the effects of technology in daily applications																		
Examples: weather satellites, Global Positioning Systems (GPS), radioactive dating of rock samples										X								
16. Collect data and construct and analyze graphs, tables, and charts using tools such as computer-based or calculator-based probeware.				XX	XX	XX	X		XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
Forces and Motion																		
17. Describe the basic natural forces												XX						XX
a. Gravitational											X	XX	X	XX	XX	X		XX
b. Electromagnetic		X	X		XX	XX												
c. Strong nuclear																		
d. Weak nuclear																		
18. Understand the interrelationship among mass, distance, force, velocity, acceleration, and time							X				XX		XX	XX	XX	XX	XX	XX
a. Linear motion	X		X						X		XX	X	XX	XX	XX	XX	XX	XX
b. Uniform circular motion											XX		XX	XX	XX	XX	XX	XX
c. Projectile motion											XX		XX	XX	XX	XX	XX	XX
19. Explain the significance of slope and area under a curve when graphing motion data													X					
Example: relationship between the distance-time graph and the velocity-time graph									X		X	X					X	

