

LIFE SCIENCE DAYBOOK  
EARTH SCIENCE DAYBOOK  
PHYSICAL SCIENCE DAYBOOK

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correlated to

**Illinois**

**Learning Standards for Science  
Grades 6-8**

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**correlated to**  
**Illinois Learning Standards for Science**  
**Grades 6-8**

**S T A N D A R D 1 1 . A :**

<b>Illinois Learning Standards for Science</b>	<b>Life Science Daybook ©2003</b>
11.A.3a - Formulate hypotheses that can be tested by collecting data.	The following can be used to address this objective: 5
11.A.3b -Conduct scientific experiments that control all but one variable.	The following can be used to address this objective: 36
11.A.3c - Collect and record data accurately using consistent measuring and recording techniques and media.	The following can be used to address this objective: 36

**S T A N D A R D 1 2 A :**

<b>Illinois Learning Standards for Science</b>	<b>Life Science Daybook ©2003</b>
12.A.3a - Explain how cells function as "building blocks" of organisms and describe the requirements for cells to live.	The following can be used to address this objective: 1, 2, 4, 5, 6
12.A.3b -Compare characteristics of organisms produced from a single parent with those of organisms produced by two parents	The following can be used to address this objective: 3, 7, 8, 9, 13, 14, 15, 16, 17
12.A.3c -Compare and contrast how different forms and structure reflect different functions.	The following can be used to address this objective: 10, 11

**S T A N D A R D 1 2 B :**

<b>Illinois Learning Standards for Science</b>	<b>Life Science Daybook ©2003</b>
12.B.3a - Identify and classify biotic and abiotic factors in an environment that affect population density, habitat and placement of organisms in an energy pyramid.	The following can be used to address this objective: 25, 26, 27, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60
12.B.3b - Compare and assess features of organisms for their adaptive, competitive and survival potential.	The following can be used to address this objective: 19, 20, 21, 28, 29, 30, 31, 32, 34, 35, 36

**S T A N D A R D 1 3 B :**

<b>Illinois Learning Standards for Science</b>	<b>Life Science Daybook ©2003</b>
13.B.3a - Identify and explain ways that scientific knowledge and economics drive technological development	The following can be used to address this objective: 20, 59
13.B.3b - Identify important contributions to science and technology that have been made by individuals and groups from various cultures.	The following can be used to address this objective: 15, 20
13.B.3c- Describe how occupations use science and technological knowledge and skills.	The following can be used to address this objective: 54, 57



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**S T A N D A R D 1 1 . A :**

Illinois Learning Standards for Science	Earth Science Daybook ©2003
11.A.3a - Formulate hypotheses that can be tested by collecting data.	The following can be used to address this objective: 2, 3, 5, 10, 11, 12, 18, 19, 20, 21, 24, 27, 33-36, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 60
11.A.3b - Conduct scientific experiments that control all but one variable.	The following can be used to address this objective: 6, 10, 22, 32, 38, 54
11.A.3c - Collect and record data accurately using consistent measuring and recording techniques and media.	The following can be used to address this objective: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 28-32, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 46-53, 55-57, 59, 60
11.A.3d - Explain the existence of unexpected results in a data set.	The following can be used to address this objective: 1,2, 3, 4, 5, 6, 9, 10, 11, 12,19, 20, 21, 22, 23, 24, 25, 28, 34, 35, 39, 40, 42, 46, 47, 48, 51, 52, 53, 55-57, 59, 60
11.A.3e - Use data manipulation tools and quantitative and representational methods to analyze measurements	The following can be used to address this objective: 1, 6, 9-12, 19, 20, 21, 22, 23, 24, 25,28, 32, 35, 34, 38, 39, 40, 42, 46, 47, 48, 51, 52, 53, 54, 55, 56, 57, 59, 60
11.A.3f - Interpret and represent results on analysis to produce findings	The following can be used to address this objective: 1, 2, 3, 4, 5, 6, 9, 10, 11, 12, 19, 20, 21, 22, 23, 24, 25, 28, 34, 39, 40, 42, 46, 47, 48, 51, 53, 55-57, 59, 60
11.A.3g - Report and display the results of individual and group investigations.	The following can be used to address this objective: 1, 2, 3, 4, 5, 6, 9, 10, 11, 12, 19, 20, 21, 22, 23, 24, 25, 28, 34, 39, 40, 42, 46, 47,48, 51, 53, 55-57, 59, 60

**S T A N D A R D 1 1 . B :**

<b>Illinois Learning Standards for Science</b>	<b>Earth Science Daybook ©2003</b>
11.B.3a - Identify an actual design problem and establish criteria for determining the success of a solution.	The following can be used to address this objective: 21, 24, 26, 27, 31, 32, 37, 58, 59
11.B.3b - Sketch, propose and compare design solutions to the problem considering available materials, tools, cost effectiveness and safety.	The following can be used to address this objective: 21, 24, 26, 27, 31, 32, 37, 58, 59
11.B.3c - Select the most appropriate design and build a prototype or simulation	The following can be used to address this objective: 21, 24, 26, 27, 31, 32, 37, 58, 59
11.B.3d - Test the prototype using available materials, instructions and technology and record the data.	The following can be used to address this objective: 21, 24, 26, 27, 31, 32, 37, 58, 59
11.B.3e - Evaluate the test results based on established criteria, note sources of error and recommend improvements.	The following can be used to address this objective: 21, 24, 26, 27, 31, 32, 37, 58, 59
11.B.3f- Using available technology, report the relative success of the design based on the test results.	The following can be used to address this objective: 21, 24, 26, 27, 31, 32, 37, 58, 59

**S T A N D A R D 1 2 A :**

<b>Illinois Learning Standards for Science</b>	<b>Earth Science Daybook ©2003</b>
12.A.3c - Compare and contrast how different forms and structure reflect different functions.	The following can be used to address this objective: 1, 26, 32, 33, 37, 58

**S T A N D A R D 1 2 B :**

<b>Illinois Learning Standards for Science</b>	<b>Earth Science Daybook ©2003</b>
12.B.3a - Identify and classify biotic and abiotic factors in an environment that affect population density, habitat and placement of organisms in an energy pyramid.	The following can be used to address this objective: 10, 11, 12, 16, 55

**S T A N D A R D 1 2 C :**

<b>Illinois Learning Standards for Science</b>	<b>Earth Science Daybook ©2003</b>
12.C.3a - Explain interactions of energy with matter including changes of state and conservation of mass and energy.	The following can be used to address this objective: 8, 16, 17, 22, 23, 25, 32, 36, 37, 39, 49, 50, 51, 54, 58, 59
12.C.3b - Model and describe the chemical and physical characteristics of matter.	The following can be used to address this objective: 8, 22, 23, 25, 32, 36, 37, 39, 54

**S T A N D A R D 1 2 D :**

<b>Illinois Learning Standards for Science</b>	<b>Earth Science Daybook ©2003</b>
12.D.3a - Explain and demonstrate how forces affect motion.	The following can be used to address this objective: 8, 16, 17, 36, 39
12.D.3b - Explain the factors that affect the gravitational forces on objects.	The following can be used to address this objective: 16, 17, 36, 49, 50, 51, 58, 59

**S T A N D A R D 1 2 E :**

<b>Illinois Learning Standards for Science</b>	<b>Earth Science Daybook ©2003</b>
12.E.3a - Analyze and explain large scale dynamic forces, events, and processes that affect the Earth's land water and atmospheric systems.	The following can be used to address this objective: 1-49, 51
12.E.3b - Describe interactions between solid earth, oceans, atmosphere and organisms that have resulted in ongoing changes of Earth.	The following can be used to address this objective: 1-49, 51
12.E.3c - Evaluate the biodegradability of renewable and nonrenewable natural resources.	The following can be used to address this objective: 7-9, 13, 14, 16, 26-32, 47

**S T A N D A R D 1 2 F :**

<b>Illinois Learning Standards for Science</b>	<b>Earth Science Daybook ©2003</b>
12.F.3a - Simulate, analyze and explain the effects of gravitational force in the solar system.	The following can be used to address this objective: 1, 2, 21, 49-60
12.F.3b - Describe the organization and physical characteristics of the solar system.	The following can be used to address this objective: 1, 2, 21, 49-60

**S T A N D A R D 1 3 A :**

<b>Illinois Learning Standards for Science</b>	<b>Earth Science Daybook ©2003</b>
13.A.3a - Identify and reduce potential hazards in science activities	The following can be used to address this objective: 24, 29, 30, 38, 42
13.A.3c - Explain what is similar and different about observational and experimental investigations.	The following can be used to address this objective: 2, 3, 5, 12, 18-21, 24, 27, 33-36, 46-53, 55-58, 60

**S T A N D A R D 1 3 B :**

<b>Illinois Learning Standards for Science</b>	<b>Earth Science Daybook ©2003</b>
13.B.3a - Identify and explain ways that scientific knowledge and economics drive technological development	The following can be used to address this objective: 2, 3, 5, 12, 18-21, 24, 27, 33-36, 46-53, 55-58, 60
13.B.3b - Identify important contributions to science and technology that have been made by individuals and groups from various cultures.	The following can be used to address this objective: 2, 3, 8, 9, 20, 21, 26, 30, 39-41, 47, 49-51, 53, 56-60
13.B.3c- Describe how occupations use science and technological knowledge and skills.	The following can be used to address this objective: 2, 3, 8, 9, 20, 21, 26, 30, 39-41, 47, 49-51, 53, 56-60
13.B.3d - Analyze the interaction of resource acquisition, technological development and ecosystem impact.	The following can be used to address this objective: 2, 3, 8, 9, 20, 21, 26, 30, 39-41, 47, 49-51, 53, 56-60
13.B.3e - Identify advantages and disadvantages of natural resource conservation and management programs.	The following can be used to address this objective: 2, 3, 8, 9, 20, 21, 26, 30, 39-41, 47, 49-51, 53, 56-60
13.B.3f - Apply classroom-developed criteria to determine the effects of policies on local science and technology issues.	The following can be used to address this objective: 24, 29, 30, 38, 42



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**S T A N D A R D 1 1 . A**  
**K n o w a n d a p p l y t h e c o n c e p t s , p r i n c i p l e s a n d p r o c e s s e s**  
**o f s c i e n t i f i c i n q u i r y .**

Illinois Learning Standards for Science	Physical Science Daybook ©2003
11.A.3a: Formulate Hypotheses that can be tested by collecting data.	Chapter 1: Lesson 3
11.A.3b: Conduct scientific experiments that control all but one variable.	Chapter 1: Lesson 3 Chapter 5: Lesson 13 Chapter 7: Lesson 21 Chapter 10: Lesson 28, Chapter 11: Lesson 31 Chapter 12: Lesson 36 Chapter 14: Lessons 40 and 41 Chapter 15: Lessons 43 and 44 Chapter 17: Lesson 50 Chapter 18: Lessons 52 and 54 Chapter 19: Lesson 57 Chapter 20: Lesson 60
11.A.3c: Collect and record data accurately using consistent measuring and recording techniques and media.	Chapter 1: Lesson 3 Chapter 2: Lesson 6 Chapter 5: Lesson 13 Chapter 12: Lesson 36 Chapter 14: Lesson 40 and 41 Chapter 15: Lessons 43 and 44 Chapter 17: Lesson 50 Chapter 18: Lessons 52 and 54 Chapter 19: Lesson 57, Chapter 20: Lesson 60

**S T A N D A R D 1 1 . A ( C o n t . )**

<b>Illinois Learning Standards for Science</b>	<b>Physical Science Daybook ©2003</b>
11.A.3f: Interpret and represent results of analysis to produce findings.	Chapter 1: Lesson 3 Chapter 2: Lesson 6 Chapter 5: Lesson 13 Chapter 7: Lesson 21 Chapter 10: Lesson 28 Chapter 11: Lesson 31 Chapter 12: Lesson 36 Chapter 14: Lessons 40 and 41 Chapter 15: Lessons 43 and 44 Chapter 17: Lesson 50 Chapter 18: Lessons 52 and 54 Chapter 19: Lesson 57 Chapter 20: Lesson 60

**S T A N D A R D 1 1 . B :**

**Know and apply the concepts, principles and processes of technological design.**

<b>Illinois Learning Standards for Science</b>	<b>Physical Science Daybook ©2003</b>
11.B.3a: Identify an actual design problem and establish criteria for determining the success of a solution.	Chapter 3: Lesson 8

**S T A N D A R D 1 2 . B :**

**Know and apply concepts that describe how living things interact with each other and with their environment.**

<b>Illinois Learning Standards for Science</b>	<b>Physical Science Daybook ©2003</b>
12.B.3b: Compare and assess features of organisms for their adaptive, competitive and survival potential (e.g., appendages, reproductive rates, camouflage, defensive structures).	Chapter 5: Lesson 15 Chapter 7: Lesson 20 Chapter 14: Lesson 40 Chapter 18: Lesson 53 Chapter 19: Lesson 57

**STANDARD 12.C:****Know and apply concepts that describe properties of matter and energy and the interactions between them.**

<b>Illinois Learning Standards for Science</b>	<b>Physical Science Daybook ©2003</b>
12.C.3a: Explain interactions of energy with matter including changes of state and conservation of mass and energy.	Chapter 1: Lesson 2 Chapter 7: Lesson 21 Chapter 8: Lesson 23 Chapter 9: Lesson 27 Chapter 10: Lessons 28, 29, and 30 Chapter 11: Lessons 31 and 33 Chapter 12: Lesson 35 Chapter 19: Lesson 56
12.C.3b: Model and describe the chemical and physical characteristics of matter (e.g., atoms, molecules, elements, compounds, mixtures).	Chapter 5: Lesson 13 Chapter 12: Lesson 34 Chapter 13: Lessons 37, 38 and 39 Chapter 14: Lessons 40, 41 and 42 Chapter 15: Lessons 43, 44 and 45 Chapter 16: Lessons 46, 47 and 48 Chapter 17: Lessons 49, 50 and 51 Chapter 18: Lessons 52, 53 and 54 Chapter 19: Lessons 53, 56 and 57 Chapter 20: Lessons 58 and 59

**STANDARD 12.D:****Know and apply concepts that describe force and motion and the principles that explain them.**

<b>Illinois Learning Standards for Science</b>	<b>Physical Science Daybook ©2003</b>
12.D.3a: Explain and demonstrate how forces affect motion (e.g., action/reaction, equilibrium conditions, free-falling objects).	Chapter 1: Lesson 2 Chapter 2: Lessons 4 and 5 Chapter 9: Lesson 25
12.D.3b: Explain the factors that affect the gravitational forces on objects (e.g., changes in mass, distance).	Chapter 1: Lesson 2 Chapter 2: Lesson 5

**STANDARD 12.E:****Know and apply concepts that describe the features and processes of the Earth and its resources.**

<b>Illinois Learning Standards for Science</b>	<b>Physical Science Daybook ©2003</b>
12.E.3a: Analyze and explain large-scale dynamic forces, events and processes that affect the Earth's land, water and atmospheric systems (e.g., jetstream, hurricanes, plate tectonics).	Chapter 5: Lesson 14 Chapter 7: Lesson 19 Chapter 14: Lesson 42
12.E.3b: Describe interactions between solid earth, oceans, atmosphere and organisms that have resulted in ongoing changes of Earth (e.g., erosion, El Nino).	Chapter 19: Lesson 55

**STANDARD 12.F:****Know and apply concepts that explain the composition and structure of the universe and Earth's place in it.**

<b>Illinois Learning Standards for Science</b>	<b>Physical Science Daybook ©2003</b>
12.F.3b: Describe the organization and physical characteristics of the solar system (e.g., sun, planets, satellites, asteroids, comets).	Chapter 9: Lesson 26

**STANDARD 13.B:****Know and apply concepts that describe the interaction between science, technology and society.**

<b>Illinois Learning Standards for Science</b>	<b>Physical Science Daybook ©2003</b>
13.B.3a: Identify and explain ways that scientific knowledge and economics drive technological development.	Chapter 3: Lesson 9 Chapter 4: Lesson 11 Chapter 6: Lesson 18 Chapter 7: Lesson 21 Chapter 12: Lesson 36

**S T A N D A R D 1 3 . B ( C o n t . )**

<b>Illinois Learning Standards for Science</b>	<b>Physical Science Daybook ©2003</b>
<p>13.B.3b: Identify important contributions to science and technology that have been made by individuals and groups from various cultures.</p>	<p>Chapter 1: Lesson 1            Chapter 3: Lessons 7 and 9            Chapter 4: Lessons 10 and 12            Chapter 6: Lessons 16 and 17            Chapter 8: Lessons 22 and 24            Chapter 11: Lesson 31            Chapter 13: Lesson 38            Chapter 15: Lesson 44            Chapter 18: Lesson 54            Chapter 19: Lesson 53            Chapter 20: Lesson 60</p>
<p>13.B.3c: Describe how occupations use scientific and technological knowledge and skills.</p>	<p>Chapter 4: Lesson 11            Chapter 16: Lesson 47            Chapter 17: Lesson 49            Chapter 18: Lesson 52</p>



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