

**Correlation of**  
***Seeds of Science/Roots of Reading***<sup>®</sup>  
**Integrated Science and Literacy Units**

**Planets & Moons**  
**Aquatic Ecosystems**  
**Models of Matter**  
**Chemical Changes**

**with the State of New Jersey**  
**English Language Arts Standards**  
**for Grades 4 and 5**  
Created September 2007



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**Correlation to New Jersey Literacy Standards for  
Seeds of Science/Roots of Reading  
4<sup>th</sup>/5<sup>th</sup> grade units**

	<b>Aquatic Ecosystems</b>	<b>Planets and Moons</b>	<b>Models of Matter</b>	<b>Chemical Changes</b>
<b>S TANDARD 3.1: ALL STUDENTS WILL SPEAK FOR A VARIETY OF REAL PURPOSES AND AUDIENCES.</b>				
1. Use listening, writing, reading, and viewing to assist with speaking.	●●●	●●●	●●●	●●●
2. Adjust oral communications for different purposes and audiences.	●●●	●●●	●●●	●●●
3. Use oral communication to influence the behavior of others.	●	●	●	●
4. Modify oral communication in response to the reactions of others.				
5. Participate in collaborative speaking activities, such as choral reading, plays, and reciting of poems.	●●	●●	●●	●●
6. Participate in discussion by alternating the roles of speaker and listener.	●●●	●●●	●●●	●●●
7. Talk with others to identify, explore, and solve problems.	●●●	●●●	●●●	●●●
8. Speak before a group to express thoughts and ideas, convey an opinion, present information, and tell a story.	●●	●●	●●	●●
9. Use the conventions of spoken English, such as grammar and appropriate forms of address.	●	●	●	●
10. Read aloud with meaning.	●●●	●●●	●●●	●●●
11. Give directions and/or instructions.				
12. Tell, retell, summarize, and paraphrase ideas.	●●●	●●●	●●●	●●●
13. Use visual aids and nonverbal behaviors to support spoken messages.	●●	●	●	●
14. Use clear, concise, organized language in speaking situations.	●●●	●●●	●●●	●●●
15. Speak before a group to defend an opinion and present an oral interpretation.	●●●	●●●	●●●	●●●
16. Recognize when audiences do not understand the message, and make appropriate adjustments.	●	●	●	●
17. Conduct an informational interview.				
18. Receive and use constructive feedback to improve speaking ability.				

- ● ● =Major focus on concept, skill, or understanding, explicitly taught
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<b>S TANDARD 3.2: ALL STUDENTS WILL LISTEN ACTIVELY IN A VARIETY OF SITUATIONS TO INFORMATION FROM A VARIETY OF SOURCES.</b>				
1. Use speaking, writing, reading, and viewing to assist with listening.	●●●	●●●	●●●	●●●
2. Demonstrate comprehension of a story, interview, and oral report of an event or incident.	●●	●●	●●	●●
3. Listen for a variety of purposes, such as enjoyment and obtaining information.	●●	●●	●●	●●
4. Interpret meaning through sounds, such as how speaking style reveals character in an oral interpretation.				
5. Listen attentively and critically to a variety of speakers.	●●●	●●●	●●●	●●●
6. Develop listening strategies, such as asking relevant questions, taking notes, and making predictions, to understand what is heard.	●●	●●	●●	●●
7. Follow oral directions.	●●	●●	●●	●●
8. Demonstrate comprehension of, and appropriate listener response (e.g., listening attentively) to, an oral report, discussion, and interview.	●●	●●	●●	●●
9. Give appropriate feedback to a variety of speakers.	●●	●●	●●	●●
10. Recognize persuasive techniques and credibility in oral communication.				

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<b>S TANDARD 3.3: ALL STUDENTS WILL WRITE IN CLEAR, CONCISE, ORGANIZED LANGUAGE THAT VARIES IN CONTENT AND FORM FOR DIFFERENT AUDIENCES AND PURPOSES.</b>				
1. Use speaking, listening, reading, and viewing to assist with writing.	●●●	●●●	●●●	●●●
2. Write from experiences, thoughts, and feelings.	●●●	●●●	●●●	●●●
3. Use writing to extend experience.	●●●	●●●	●●●	●●●
4. Write for a variety of purposes, such as to persuade, enjoy, entertain, learn, inform, record, respond to reading, and solve problems.	●●●	●●●	●●●	●●●
5. Write on self-selected topics in a variety of literary forms.				
6. Write collaboratively and independently.	●●●	●●●	●●●	●●●
7. Use a variety of strategies and activities, such as brainstorming, listing, discussion, drawing, role playing, note-taking, and journal writing, for finding and developing ideas about which to write.	●●●	●●●	●●●	●●●
8. Write to synthesize information from multiple sources.	●●●	●●	●●	●●●
9. Use figurative language, such as simile, metaphor, and analogies to expand meaning.			●	
10. Revise content, organization and other aspects of writing, using self, peer, and teacher collaborative feedback (the shared responses of others).	●	●	●	●

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<b>S TANDARD 3.3 continued: ALL STUDENTS WILL WRITE IN CLEAR, CONCISE, ORGANIZED LANGUAGE THAT VARIES IN CONTENT AND FORM FOR DIFFERENT AUDIENCES AND PURPOSES.</b>				
11. Edit writing for developmentally appropriate syntax, spelling, grammar, usage, and punctuation.	•	•	•	•
12. Publish writing in a variety of formats.	•	•	•	•
13. Establish and use criteria for self and group evaluation of written products.	•	•	•	•
14. Develop a portfolio or collection of writings.	••	••	••	••
15. Understand that written communication can affect the behavior of others.				
16. Write technical materials, such as instructions for playing a game, that include specific details.				•••
17. Cite sources of information.	•			•
18. Write for real audiences and purposes, such as job applications, business letters, college applications, and memoranda.				
19. Write a research paper that synthesizes and cites data.				•

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<b>STANDARD 3.4: ALL STUDENTS WILL READ A VARIETY OF MATERIALS AND TEXTS WITH COMPREHENSION AND CRITICAL ANALYSIS.</b>				
1. Use listening, speaking, writing, and viewing to assist with reading.	●●●	●●●	●●●	●●●
2. Listen and respond to whole texts.	●●●	●●●	●●●	●●●
3. Understand that authors write for different purposes, such as persuading, informing, entertaining, and instructing.	●	●	●	●
4. Use reading for different purposes, such as enjoyment, learning, and problem solving.	●●	●●	●	●●
5. Read independently a variety of literature written by authors of different cultures, ethnicities, genders, and ages.				
6. Read literally, inferentially, and critically.	●●●	●●●	●●●	●●●
7. Use print concepts in developmentally appropriate ways.	●●●	●●●	●●●	●●●
8. Read with comprehension.	●●●	●●●	●●●	●●●
9. Use prior knowledge to extend reading ability and comprehension and to link aspects of the text with experiences and people in their own lives.	●●	●●	●●●	●●
10. Identify passages in the text that support their point of view.	●●	●●	●●●	●●
11. Distinguish personal opinions and points of view from those of the author, and distinguish fact from opinion.	●	●	●	●
12. Demonstrate comprehension through retelling or summarizing ideas and following written directions.	●●	●●	●●	●●
13. Identify elements of a story, such as characters, setting, and sequence of events.				

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<b>STANDARD 3.4 continued: ALL STUDENTS WILL READ A VARIETY OF MATERIALS AND TEXTS WITH COMPREHENSION AND CRITICAL ANALYSIS.</b>				
14. Identify literary forms, such as fiction, poetry, drama, and nonfiction.				
15. Expand vocabulary using appropriate strategies and techniques, such as word analysis and context clues.	●●●	●●●	●●●	●●●
16. Read and use printed materials and technical manuals from other disciplines, such as science, social studies, mathematics, and applied technology.	●●	●●	●●	●●
17. Read more than one work by a single author.	●●	●●	●●	●●
18. Begin to identify common aspects of human existence.				
19. Recognize propaganda and bias in written texts.				
20. Analyze main ideas and supportive details.	●●●	●●	●●	●
21. Analyze text using patterns of organization, such as cause and effect, comparison and contrast.	●●	●●		●
22. Analyze text for the purpose, ideas, and style of the author.				
23. Understand the role of characters, setting, and events in a given literary work.				
24. Understand the concepts of figurative language, symbolism, allusion, connotation, and denotation.				
25. Gather and synthesize data for research from a variety of sources, including print materials, technological resources, observation, interviews, and audiovisual media.	●●	●●	●●	●●

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<b>S TANDARD 3.5: ALL STUDENTS WILL VIEW, UNDERSTAND, AND USE NONTEXTUAL VISUAL INFORMATION.</b>				
1. Use speaking, listening, writing, and reading to assist with viewing.	●●●	●●●	●●●	●●●
2. Demonstrate the ability to gain information from a variety of media.	●●●	●●●	●●●	●●●
3. Articulate awareness of different media forms and how these contribute to communication.	●●●	●●●	●●●	●●●
4. Articulate information conveyed by symbols such as those found in pictorial graphs, map keys, and icons on a computer screen.	●●	●●	●●●	●●●
5. Respond to and evaluate the use of illustrations to support text.	●●	●●	●●●	●●●
6. Recognize and use pictorial information that supplements text.	●●●	●●●	●●●	●●●
7. Use symbols, drawings, and illustrations to represent information that supports and/or enhances their writing.	●●●	●●●	●●●	●●●
8. Use simple charts, graphs, and diagrams to report data.	●●	●●	●●	●●●
9. Distinguish between factual and fictional visual representations.				
10. Take notes on visual information from films, presentations, observations, and other visual media, and report that information through speaking, writing, or their own visual representations.	●●	●●	●●	●●
11. Recognize and respond to visual messages of humor, irony, metaphor.				
12. Articulate the connection between visual and verbal message.				
13. Choose and use multiple forms of media to convey what has been learned.				
14. Integrate multiple forms of media into a finished product.	●●●	●●●	●●●	●●●
15. Evaluate media for credibility.				
16. Compare and contrast media sources, such as book and film versions of a story.				

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