



## Common Core State Standards Connections

### K-5 Mathematics, Language Arts and Physical Education

**Chess** is a learning tool for the development of the mind that just happens to be a game. Chess is already making a strong contribution to children’s learning in schools across the country. Now, we can show you how the **Championship Chess (CC) Scholastic Chess Series** can help you meet Common Core State Standards as you enhance overall learning.

<b>Mathematics</b>  <b>K-5</b>	<i>Two goals of the Common Core State Standards are to make mathematics literacy part of everyday decisions and to support mathematical thinking and problem-solving. The standards address mathematical practices, including problem-solving, mathematical reasoning, communication, representation and connections. Students are encouraged to think critically to discover different possible solutions. As in chess, reasoned, logical connections make mathematics understandable.</i>	
<i>Counting and Cardinality (K)</i>	<ul style="list-style-type: none"> <li>▪ Students know number names, count in sequence and connect numbers to quantity.</li> </ul>	<b>CC:</b> As students count and use the ranks, files and diagonals on the chessboard, they apply numeration to identify how and how far the pieces move.
<i>Geometry</i>	<ul style="list-style-type: none"> <li>▪ Students reason with shapes and their attributes. <b>(K-3)</b></li> <li>▪ Students use the coordinate system. <b>( 4-5)</b></li> </ul>	<b>CC:</b> Students use the algebraic grid of the chessboard to identify relative positions of the pieces on the quadrants of the board and apply this to the annotation, evaluation and description of best moves.
<i>Algebra (4-5)</i>	<ul style="list-style-type: none"> <li>▪ Students generate and analyze patterns.</li> </ul>	<b>CC:</b> The chessboard pattern and the relationships of the pieces help students organize ideas to solve problems with slight variations of place or sequence.
<i>Mathematical Practices (K-5)</i>	<ul style="list-style-type: none"> <li>▪ Students will:               <ol style="list-style-type: none"> <li>(1) make sense of problems and persevere in solving them.</li> <li>(2) reason abstractly and quantitatively.</li> <li>(3) construct viable arguments; and,</li> <li>(4) model with mathematics and use appropriate tools strategically.</li> </ol> </li> </ul>	<b>CC:</b> (1) Every time a move is made on the chessboard there is a new problem to solve. (2) Students have to analyze and evaluate to verify options and select the best move. (3) Using algebraic notation, students “speak chess,” analyzing space and viewpoint to formulate and to answer questions. (4) Such concepts as even and odd; vertical, horizontal and diagonal; pattern recognition; and, solving multistep problems apply to chess play.

<p><b>English/ Language Arts</b></p> <p><b>K-5</b></p>	<p><i>Research shows that to become more skilled and confident readers and communicators, students need multiple and diverse opportunities to build essential skills. The anchor standards address the skills and understandings that all students must demonstrate.</i></p>		
	<p><i>Reading: Foundational Skills (K-1)</i></p>	<ul style="list-style-type: none"> <li>▪ Students identify and use upper and lower case letters</li> </ul>	<p><b>CC:</b> Using the algebraic grid and the letter designations for each piece, students use letters to identify and communicate positions on the chessboard.</p>
	<p><i>Reading: Craft and Structure (K-5)</i></p>	<ul style="list-style-type: none"> <li>▪ Students use new words in oral and written language; students recognize multiple meanings of words.</li> </ul>	<p><b>CC:</b> The language of chess includes the special use of familiar words, such as <i>forks, pins, skewers</i>. Students read these words in books and use them in game analyses.</p>
	<p><i>Reading: Integration of Knowledge and Ideas (K-5)</i></p>	<ul style="list-style-type: none"> <li>▪ Students use strategies to gain better understanding:               <ol style="list-style-type: none"> <li>(1) Make predictions.</li> <li>(2) Recognize cause-and-effect relationships.</li> <li>(3) Interpret information from diagrams.</li> </ol> </li> </ul>	<p><b>CC:</b> Chess requires many of the same skills that are needed for good comprehension. Playing chess gives students new and varied opportunities to:</p> <ol style="list-style-type: none"> <li>(1) Make predictions within opening or endgame patterns.</li> <li>(2) Recognize that moves may cause specific reactions. Sometimes effects are predictable; sometimes they're not, but the relationship is clear.</li> <li>(3) "Read" the chessboard diagrams during play and in chess books. They learn to identify advantages, candidate moves, short-term tactical plays and long-range strategies.</li> </ol>
	<p><i>Speaking and Listening (K-5)</i></p>	<ul style="list-style-type: none"> <li>▪ Students practice communication skills:               <ol style="list-style-type: none"> <li>(1) Ask and answer questions.</li> <li>(2) Display turn-taking behavior.</li> <li>(3) Volunteer and solicit comments and opinions.</li> <li>(4) Cite and clarify rationale.</li> <li>(5) Actively listen and demonstrate knowledge gathered from others or a variety of media.</li> </ol> </li> </ul>	<p><b>CC:</b> Chess activities require good communication skills. Although there may be little give and take across the chessboard, improving chess skills requires students to:</p> <ol style="list-style-type: none"> <li>(1) Ask and answer questions related to classic games or their own games.</li> <li>(2) Take turns during play and during group analysis.</li> <li>(3) Listen to or question the opinion of others rationally</li> <li>(4) Clearly explain the rationale behind their moves.</li> <li>(5) Use a variety of media to gather information and improve their games.</li> </ol>
<p><b>Physical Education</b></p> <p><b>K-5</b></p>	<p><i>Chess is a game with more mental than physical demands, but the goals of sportsmanship are still important.</i></p>		
	<p><i>Safety: Responsibility, Cooperation, Respect</i></p>	<p>Students will:</p> <ol style="list-style-type: none"> <li>(1) Recognize and follow rules;</li> <li>(2) Play cooperatively and respectfully;</li> <li>(3) Take responsibility for their actions.</li> </ol>	<p><b>CC:</b> (1) Players must follow rules, including touch/move. (2) Games begin and end with a handshake, a show of respect and cooperation that is integral to positive interactions within competitive play. (3) Players are solely responsible for their games—breaking rules means a forfeited game; inattentiveness to the board or an opponent's play may mean a loss.</p>

