	Eccontial Quartian(c)
Arithmetic concepts extend to understanding of algebraic expressions and equations.	What are some everyday situations that can be expressed as algebraic expressions and equations?
Content Standard(s):	Mathematical Practice or Process Standards:
Write, read, and evaluate expressions in which letters stand for numbers.	Reason abstractly and quantitatively
	Attend to precision
	I ask for and make use of structure
Learning Intention(s):	Success Criteria
Mathematical Learning Intentions	(written in student voice):
We are learning to:	I know that I am successful when I can:
 Write expressions that record operations with numbers and letters 	 Read and write expressions with letters standing for numbers
standing for numbers. For example, "subtract y from 5" as 5 - y.	 Evaluate expressions for specific values
Language Learning Intentions	 Apply the order of operations to algebraic expressions
 We are learning to: Use the terms algebraic expression, sum, term, product, factor, quantity, quotient, coefficient, constant, like terms, equivalent expressions, and variables appropriately 	• Use the terms algebraic expression, sum, term, product, factor, quantity, quotient, coefficient, constant, like terms, equivalent expressions, and variables appropriately in writing and speaking
Social Learning Intentions	Listen to the ideas of others
	 Kespectfully disagree with the mathematical arguments of others
We are learning to:	
 Listen to the laeas of others Respectfully disagree with the mathematical arguments of others 	
Purpose:	
\Box Conceptual Understanding \mathbf{V} Pr	ocedural Fluency 🛛 Transfer
Task: Each small group of students will solve the p Kicks! (see Figure A.1). Students may rely upo	problems on the worksheet entitled, Soccer on the use of Algebra Tiles early in the

Materials (representa	tions, manipulatives, ot	her):
Algebra Tiles		
Paper/pencil		
Soccer Kicks! Problems	set A and Set B (see Figures	5 A.1 and A.2)
Misconceptions or Co	ommon Errors:	
 Students incorrectly 	translate statements such as	; "6 less than y" as "6 - y."
• Students incorrectly term.	use the distributive property	and may only distribute the first
• Students forget that	if a coefficient is not writte	en, the coefficient is 1.
Format:		
□ Four-Part Lesson	Game Format	☑ Small-Group Instruction
Pairs	Other	-
Formative Assessmer	ıt:	

Observe students as they work on problems. Look to determine if students are drawing pictures of the manipulatives or writing the expressions abstractly. Note that a few students may still need to use Algebra Tiles.

Launch:

Refer back to the previously taught lesson. Yesterday we used Algebra Tiles to help us model expressions. Let's see what we remember as you work with your partner to model the following:

Sam went to the fair. He bought a book of tickets for \$4.00. Then he bought drinks that cost \$2.00 each for his friends. What expression represents the problem?

Have students share how they modeled the word problem using Algebra Tiles. Select one student to draw a picture of his or her tiles on the document camera.

Facilitate:

Refer to the drawing of the tiles on the document camera. Discuss with students if the drawing is as useful as using the tiles. Encourage students to work on the Set A worksheet problems by drawing the tiles and, if possible, not using the real tiles. Walk around as students solve the problems. For students who seem to be proficient with the pictures, collect their tiles and challenge them to visualize the tiles to solve Set B's (see Figure A.2) problem abstractly. Not all students will be able to solve problems abstractly at this point. Select students you have observed having difficulty moving away from the tiles and work with them in a small group. The teacher will listen to how the students describe their thinking. The teacher uses his or her thinking to help move them away from using the tiles and drawing pictures. The teacher may also work with students who are having difficulty moving from the pictorial level to the abstract level by also pulling them into a small group.

Closure:	
lse the STC starters.	P closure. Students summarize the lesson in writing by finishing the sentence
Ne <u>S</u> tarted	the lesson
Dur <u>T</u> opic w	as
<u>pportunitie</u>	s to do the work included
The <u>P</u> urpose	of the lesson was

Retrieved from the companion website for *The Mathematics Lesson-Planning Handbook, Grades 6–8: Your Blueprint for Building Cohesive Lessons* by Lois A. Williams, Beth McCord Kobett, and Ruth Harbin Miles. Thousand Oaks, CA: Corwin, www.corwin.com. Copyright © 2019 by Corwin. All rights reserved. Reproduction authorized for educational use by educators, local school sites, and/or noncommercial or nonprofit entities that have purchased the book.