Reasoning **Algebraically**
Lesson Planning

Lesson Concept: _____

1. Observe patterns and share what you notice.

What **patterns** do you hope children will observe?	
Are there particular **materials** that would best illuminate these patterns?	
Create a set or sets of **equations** that will help illuminate the pattern.	
What **questions** can you ask to guide children towards observing the pattern?	
Ask students to consider an equation **without solving** it.	

2. Make a general claim or conjecture. What claim do you hope children investigate?

3. Develop a representation that proves the claim is always true.

Anticipate some models children might create with classroom materials. How could they adjust their model, draw a representation of their model, or talk about their model in a way that demonstrates that the claim would hold true regardless of the equation?

Original Models	Adjustments To Prove the Claim is Always True
Model 1:	
Model 2:	
Model 3:	

4. Represent the claim using algebraic notation. Write a sample equation.

5. Consider how the claim changes for different domains of numbers.

Does the claim still hold true for fractions? Decimals? Negative Integers?