



# IXL Skill Plan for the Connecticut Comprehensive Assessment Program Smarter Balanced Summative Assessments - Math 4th Grade



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# Claim 1

## Concepts and Procedures

### Priority Cluster

Standard	IXL skills
Operations and Algebraic Thinking	
<b>Target A:</b> Use the four operations with whole numbers to solve problems.	<ol style="list-style-type: none"> <li>1. Compare numbers using multiplication GGE</li> <li>2. Add, subtract, multiply, and divide CNC</li> </ol>
Number and Operations – Base Ten	
<b>Target D:</b> Generalize place value understanding for multi-digit whole numbers.	<ol style="list-style-type: none"> <li>1. Relationship between place values 9DJ</li> <li>2. Place value review: expanded form, rounding, and comparing CVV</li> </ol>
<b>Target E:</b> Use place value understanding and properties of operations to perform multi-digit arithmetic.	<ol style="list-style-type: none"> <li>1. Add and subtract numbers up to five digits CFX</li> <li>2. Multiply 1-digit or 2-digit numbers by 2-digit or 3-digit numbers 8ZB</li> <li>3. Divide larger numbers by 1-digit numbers GE8</li> </ol>
Number and Operations – Fractions	
<b>Target F:</b> Extend understanding of fraction equivalence and ordering.	<ol style="list-style-type: none"> <li>1. Identify equivalent fractions GSG</li> <li>2. Compare fractions 99U</li> </ol>
<b>Target G:</b> Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.	<ol style="list-style-type: none"> <li>1. Add and subtract fractions with like denominators FXD</li> <li>2. Multiply fractions by whole numbers JLH</li> </ol>
<b>Target H:</b> Understand decimal notation for fractions, and compare decimal fractions.	<ol style="list-style-type: none"> <li>1. Convert fractions and mixed numbers to decimals - denominators of 10 and 100 6P7</li> <li>2. Compare decimal numbers DY5</li> </ol>

## Supporting Cluster

Standard	IXL skills
Operations and Algebraic Thinking	
<p><b>Target B:</b> Gain familiarity with factors and multiples.</p>	<ol style="list-style-type: none"> <li>1. Identify factors 2S9</li> <li>2. Choose the multiples of a given number up to 10 EFB</li> <li>3. Prime and composite: up to 100 L9R</li> </ol>
<p><b>Target C:</b> Generate and analyze patterns.</p>	<ol style="list-style-type: none"> <li>1. Use a rule to complete a number pattern 5P2</li> <li>2. Extend growing shape patterns NVV</li> <li>3. What is true about the given pattern? C9H</li> </ol>
Measurement and Data	
<p><b>Target I:</b> Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.</p>	<ol style="list-style-type: none"> <li>1. Convert measurement units AXC</li> <li>2. Find the area or missing side length of a rectangle 9E6</li> <li>3. Measurement word problems 2PY</li> </ol>
<p><b>Target J:</b> Represent and interpret data.</p>	<ol style="list-style-type: none"> <li>1. Create and interpret line plots with fractions QQB</li> </ol>
<p><b>Target K:</b> Geometric measurement: understand concepts of angle and measure angles.</p>	<ol style="list-style-type: none"> <li>1. Measure angles with a protractor NCN</li> <li>2. Adjacent angles VJY</li> </ol>
Geometry	
<p><b>Target L:</b> Draw and identify lines and angles, and classify shapes by properties of their lines and angles.</p>	<ol style="list-style-type: none"> <li>1. Parallel, perpendicular, and intersecting lines 8VQ</li> <li>2. Acute, obtuse, and right triangles 7QK</li> <li>3. Pick all the names for a quadrilateral 6CT</li> <li>4. Symmetry review 5FG</li> </ol>

## Claims 2 & 4

### Problem Solving / Modeling and Data Analysis

#### Problem Solving

Standard	IXL skills
<b>Target A:</b> Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	<ol style="list-style-type: none"> <li>1. Multi-step word problems EA9</li> <li>2. Elapsed time: word problems VCC</li> </ol>
<b>Target B:</b> Select and use appropriate tools strategically.	<ol style="list-style-type: none"> <li>1. Multi-step word problems with strip diagrams CZQ</li> </ol>
<b>Target C:</b> Interpret results in the context of a situation.	<ol style="list-style-type: none"> <li>1. Compare numbers using multiplication: word problems QKB</li> <li>2. Multiply fractions by whole numbers: word problems LX8</li> <li>3. Multi-step word problems involving remainders SLS</li> </ol>
<b>Target D:</b> Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	<ol style="list-style-type: none"> <li>1. Write equations to represent word problems 5SJ</li> </ol>

#### Modeling and Data Analysis

Standard	IXL skills
<b>Target A:</b> Apply mathematics to solve problems arising in everyday life, society, and the workplace.	<ol style="list-style-type: none"> <li>1. Multiply 1-digit numbers by 3-digit or 4-digit numbers: multi-step word problems M9R</li> <li>2. Add and subtract mixed numbers with like denominators: word problems 6KM</li> </ol>
<b>Target B:</b> Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem.	<ol style="list-style-type: none"> <li>1. Use fractions to find the measure of an angle Q68</li> <li>2. Angle measures: word problems YUA</li> </ol>
<b>Target C:</b> State logical assumptions being used.	<ol style="list-style-type: none"> <li>1. Rectangles: relationship between perimeter and area word problems S9M</li> </ol>



**Target D:** Interpret results in the context of a situation.

1. Use area and perimeter to determine cost 5GF

**Target E:** Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.

1. Find start and end times: multi-step word problems ZQP

**Target F:** Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).

1. Area and perimeter: word problems LTP

**Target G:** Identify, analyze, and synthesize relevant external resources to pose or solve problems.

1. Multiply fractions and mixed numbers by whole numbers in recipes 7B3
2. Measurement word problems with fractions UST

# Claim 3

## Communicating Reasoning

### Communicating Reasoning

Standard	IXL skills
<p><b>Target A:</b> Test propositions or conjectures with specific examples.</p>	<ol style="list-style-type: none"> <li>1. Estimate sums, differences, products, and quotients: word problems CRD</li> <li>2. Compare fractions using benchmarks EHJ</li> </ol>
<p><b>Target B:</b> Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures.</p>	<ol style="list-style-type: none"> <li>1. Determine whether the sum or difference of two fractions is reasonable 6GG</li> <li>2. Multi-step word problems: identify reasonable answers K6X</li> </ol>
<p><b>Target C:</b> State logical assumptions being used.</p>	<ol style="list-style-type: none"> <li>1. Word problems with extra or missing information X64</li> </ol>
<p><b>Target D:</b> Use the technique of breaking an argument into cases.</p>	<ol style="list-style-type: none"> <li>1. Decompose fractions multiple ways UEW</li> <li>2. Multiply fractions by whole numbers: sorting X48</li> </ol>
<p><b>Target E:</b> Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.</p>	<ol style="list-style-type: none"> <li>1. Identify fraction expressions with a particular sum: denominators of 10 and 100 TZH</li> </ol>
<p><b>Target F:</b> Base arguments on concrete referents such as objects, drawings, diagrams, and actions.</p>	<ol style="list-style-type: none"> <li>1. Graph and order fractions on number lines 7GK</li> <li>2. Compare decimals using models CV7</li> </ol>