



# IXL Skill Plan for the TerraNova 3<sup>®</sup> 6th grade



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# Number and Number Relations

Standard	IXL skills
<b>Compare, Order</b>	<p><b>Fractions, decimals, and percents</b></p> <ol style="list-style-type: none"> <li>1. Compare fractions with like and unlike denominators SX9</li> <li>2. Put decimal numbers in order QV2</li> <li>3. Put a mix of decimals, fractions, and mixed numbers in order AWV</li> <li>4. Compare percents to each other and to fractions GBY</li> </ol> <p><b>Integers</b></p> <ol style="list-style-type: none"> <li>5. Compare integers 4G6</li> <li>6. Put integers in order CMQ</li> </ol>
<b>Equivalent Forms</b>	<ol style="list-style-type: none"> <li>1. Equivalent fractions review 9P3</li> <li>2. Convert between decimals and fractions FL5</li> <li>3. Convert between percents, fractions, and decimals ZAV</li> </ol>
<b>Ratio, Proportion</b>	<ol style="list-style-type: none"> <li>1. Write a ratio 83K</li> <li>2. Write a ratio using a fraction XZ2</li> <li>3. Identify equivalent ratios 2LM</li> </ol>
<b>Percent</b>	<ol style="list-style-type: none"> <li>1. What percentage is illustrated? RHG</li> </ol>
<b>Number Line</b>	<ol style="list-style-type: none"> <li>1. Decimal number lines AXN</li> <li>2. Fractions on number lines ULL</li> <li>3. Graph integers on horizontal and vertical number lines 36C</li> </ol>
<b>Number Properties</b>	
<b>Factors, Multiples, Divisibility</b>	<p><b>Factors</b></p> <ol style="list-style-type: none"> <li>1. Identify factors BGJ</li> <li>2. Find all the factor pairs of a number VTM</li> </ol> <p><b>Greatest common factor</b></p> <ol style="list-style-type: none"> <li>3. Greatest common factor AMB</li> </ol>

4. Greatest common factor of three or four numbers FBD

**Least common multiple**

5. Least common multiple NGA
6. Least common multiple of three or four numbers ZRM

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**Prime, Composite Numbers**

1. Prime or composite DFC
  2. Prime factorization 9CP
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# Computation and Numerical Estimation

## Standard

## IXL skills

### Computation

#### Whole numbers

1. Add, subtract, multiply, or divide two whole numbers R99

#### Decimals

2. Add and subtract decimal numbers 79J
3. Multiply decimals 2WT
4. Divide decimals by whole numbers NLL
5. Add, subtract, multiply, or divide two decimals P6W

#### Fractions

6. Add and subtract fractions with unlike denominators AWS
7. Add and subtract mixed numbers TPZ
8. Multiply two fractions BNT
9. Multiply mixed numbers Z9M
10. Divide fractions DS2
11. Divide fractions and mixed numbers N2B
12. Add, subtract, multiply, or divide two fractions 2VR

#### Integers

13. Add integers ZM6
14. Subtract integers WQ6
15. Multiply integers J6V
16. Divide integers JZC
17. Add, subtract, multiply, or divide two integers VMW

### Computation In Context

#### Whole numbers

1. Add, subtract, multiply, or divide two whole numbers: word problems B2K

#### Decimals

2. Add and subtract decimals: word problems 97T

3. Divide decimals by whole numbers: word problems TWZ
4. Multiply and divide decimals: word problems GZN
5. Add, subtract, multiply, or divide two decimals: word problems 8HT

### Fractions

6. Add and subtract fractions with unlike denominators: word problems WT5
7. Add and subtract mixed numbers: word problems X8C
8. Multiply fractions: word problems 94H
9. Multiply mixed numbers: word problems 3P8
10. Divide fractions by whole numbers in recipes ENK
11. Divide fractions and mixed numbers: word problems WAH
12. Add, subtract, multiply, or divide two fractions: word problems RDY

### Integers

13. Add and subtract integers: word problems MP9

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## Estimation

### Whole numbers

1. Estimate products TFZ
2. Estimate quotients 5RQ

### Decimals

3. Estimate sums and differences of decimals SJ6
4. Estimate products of decimal numbers EPL

### Fractions

5. Estimate sums and differences of mixed numbers LFH
6. Estimate products of fractions and whole numbers EFY
7. Estimate products of mixed numbers 5BG
8. Estimate quotients when dividing mixed numbers HHV

### Word problems

9. Estimate to solve word problems GUU

**Computation With Money**

1. Add and subtract money amounts: word problems DR9
2. Multiply money: word problems C5S
3. Divide money amounts: word problems SEF
4. Sale prices 5GH
5. Percents - calculate tax, tip, mark-up, and more 32K

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**Recognize When To Estimate**

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**Determine Reasonableness**

1. Multi-step word problems: identify reasonable answers PYW

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**Estimation With Money**

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1. Estimate tips Y5R
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# Operation Concepts

Standard	IXL skills
<b>Order of Operations</b>	<ol style="list-style-type: none"><li>1. Evaluate numerical expressions involving whole numbers MLU</li><li>2. Evaluate numerical expressions involving decimals YEE</li><li>3. Evaluate numerical expressions involving fractions WNE</li></ol>
<b>Permutations, Combinations</b>	

# Measurement

Standard	IXL skills
<b>Appropriate Unit</b>	<ol style="list-style-type: none"> <li>1. Estimate customary measurements H8P</li> <li>2. Estimate metric measurements V6Y</li> </ol>
<b>Estimate</b>	<ol style="list-style-type: none"> <li>1. Estimate customary measurements H8P</li> <li>2. Estimate metric measurements V6Y</li> </ol>
<b>Area</b>	<p><b>Quadrilaterals</b></p> <ol style="list-style-type: none"> <li>1. Area of rectangles and squares BE9</li> <li>2. Understanding area of a parallelogram QMU</li> <li>3. Area of parallelograms Y8K</li> <li>4. Understanding area of a trapezoid 42R</li> <li>5. Area of trapezoids PKW</li> <li>6. Area of rhombuses 2QG</li> <li>7. Area of quadrilaterals 27F</li> </ol> <p><b>Triangles</b></p> <ol style="list-style-type: none"> <li>8. Area of triangles C8S</li> <li>9. Understanding area of a triangle PLL</li> </ol> <p><b>Compound figures</b></p> <ol style="list-style-type: none"> <li>10. Area of compound figures 76U</li> <li>11. Area of compound figures with triangles 5V2</li> </ol> <p><b>Figures with cutouts</b></p> <ol style="list-style-type: none"> <li>12. Area between two rectangles EY6</li> <li>13. Area between two triangles 8RG</li> </ol> <p><b>Word problems</b></p> <ol style="list-style-type: none"> <li>14. Area of quadrilaterals and triangles: word problems ULK</li> </ol>
<b>Angle Measure</b>	<ol style="list-style-type: none"> <li>1. Measure and classify angles HTH</li> <li>2. Estimate angle measurements GY5</li> </ol>
<b>Rate</b>	<ol style="list-style-type: none"> <li>1. Unit prices with customary unit conversions RW2</li> </ol>



## Scale Drawing, Map, Model

### 1. Scale drawings: word problems UFW

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# Geometry and Spatial Sense

Standard	IXL skills
<b>Angles</b>	<ol style="list-style-type: none"><li>1. Complementary and supplementary angles 8WF</li><li>2. Identify complementary, supplementary, vertical, adjacent, and congruent angles BS5</li><li>3. Find measures of complementary, supplementary, vertical, and adjacent angles Q9Z</li></ol>
<b>Parts Of Circle</b>	<ol style="list-style-type: none"><li>1. Parts of a circle Q7N</li></ol>
<b>Coordinate Geometry</b>	<ol style="list-style-type: none"><li>1. Objects on a coordinate plane GFN</li><li>2. Graph points on a coordinate plane VHQ</li><li>3. Quadrants F5T</li></ol>
<b>Congruence, Similarity</b>	<ol style="list-style-type: none"><li>1. Similar and congruent figures S8K</li><li>2. Find side lengths of similar figures 7ZR</li></ol>
<b>Transformations</b>	<ol style="list-style-type: none"><li>1. Reflection, rotation, and translation HVB</li></ol>
<b>Visualization, Spatial Reasoning</b>	<ol style="list-style-type: none"><li>1. Follow directions on a coordinate plane XDQ</li><li>2. Front, side, and top view QTB</li></ol>
<b>Apply Geometric Properties</b>	<ol style="list-style-type: none"><li>1. Nets of three-dimensional figures 8KP</li><li>2. Surface area of cubes and rectangular prisms RMG</li></ol>

# Data Analysis, Statistics, and Probability

Standard	IXL skills
<b>Read Line Graph</b>	1. Interpret line graphs X5J
<b>Read Circle Graph</b>	1. Interpret circle graphs 8KT
<b>Interpret Data Display</b>	1. Interpret circle graphs 8KT 2. Interpret line graphs X5J
<b>Make Inferences From Data</b>	1. Interpret categorical data 59A
<b>Statistics</b>	<p><b>Mean, median, mode, and range</b></p> <ol style="list-style-type: none"> <li>1. Calculate mean, median, mode, and range ZZK</li> <li>2. Interpret charts and graphs to find mean, median, mode, and range 2WK</li> <li>3. Changes in mean, median, mode, and range 2G9</li> </ol> <p><b>Outliers</b></p> <ol style="list-style-type: none"> <li>4. Identify an outlier 86B</li> <li>5. Identify an outlier and describe the effect of removing it 8Q5</li> </ol>
<b>Use Data To Solve Problems</b>	

# Patterns, Functions, Algebra

Standard	IXL skills
<b>Number Pattern</b>	
<b>Function</b>	<ol style="list-style-type: none"> <li>1. Find a value using two-variable equations 46Q</li> <li>2. Identify the graph of an equation WN7</li> <li>3. Complete a table for a two-variable relationship TZB</li> <li>4. Complete a table and graph a two-variable equation EY5</li> </ol>
<b>Rules</b>	<ol style="list-style-type: none"> <li>1. Write an equation from a graph using a table BCM</li> <li>2. Write a two-variable equation from a table ZTL</li> </ol>
<b>Inequality</b>	<p><b>Understand inequalities</b></p> <ol style="list-style-type: none"> <li>1. Graph inequalities on number lines CXX</li> <li>2. Write inequalities from number lines N99</li> </ol> <p><b>Solve and graph inequalities</b></p> <ol style="list-style-type: none"> <li>3. Solve one-step inequalities KRH</li> <li>4. Graph solutions to one-step inequalities PPC</li> </ol>
<b>Solve Linear Equation</b>	<p><b>Whole numbers</b></p> <ol style="list-style-type: none"> <li>1. Solve one-step equations with whole numbers WLR</li> <li>2. Solve equations involving like terms W82</li> <li>3. Solve two-step equations QVK</li> </ol> <p><b>Fractions and decimals</b></p> <ol style="list-style-type: none"> <li>4. Solve one-step addition and subtraction equations with decimals, fractions, and mixed numbers 5D2</li> <li>5. Solve one-step multiplication and division equations with decimals, fractions, and whole numbers T53</li> </ol>

**Model Problem Situation****One-variable equations**

1. Solve one-step equations: word problems BXY
2. Which word problem matches the one-step equation? WYQ

**Inequalities**

3. One-step inequalities: word problems N2A

**Two-variable relationships**

4. Solve word problems by finding two-variable equations UJQ
  5. Interpret a graph: word problems KZD
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# Problem Solving and Reasoning

## Standard

## IXL skills

### Develop, Explain Strategy

#### Multi-step problems

1. Multi-step word problems LHA

#### Ratio problems

2. Use tape diagrams to solve ratio word problems YMD

#### Percent problems

3. Solve percent problems using grid models YX6
4. Solve percent problems using strip models MEA

### Evaluate Solution

#### Order of operations

1. Identify mistakes involving the order of operations V46

#### Equations and inequalities

2. Which  $x$  satisfies an equation? VG8
3. Solutions to inequalities P9N

### Deductive/Inductive Reasoning

### Spatial Reasoning

1. Maps with decimal distances J7D
2. Maps with fractional distances X8Y
3. Coordinate planes as maps N96

### Proportional Reasoning

#### Ratios

1. Equivalent ratios: word problems RLZ

#### Rates

2. Unit rates JSZ
3. Equivalent rates 9AF
4. Compare rates: word problems NAF

#### Proportions

5. Solve the proportion 7H5

### Percents

6. Find what percent one number is of another:  
word problems 49B
  7. Find the total given a part and a percent D6L
  8. Solve percent word problems YWB
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# Communication

Standard	IXL skills
<b>Explain Thinking</b>	1. Scaling whole numbers by fractions: justify your answer 9YZ
<b>Explain Solution Process</b>	

1. Scaling whole numbers by fractions: justify your answer 9YZ