



# IXL Skill Plan for the TerraNova 3<sup>®</sup> 4th grade



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[www.ixl.com/math/skill-plans/terranova3-grade-4](http://www.ixl.com/math/skill-plans/terranova3-grade-4)

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# Number and Number Relations

## Standard

## IXL skills

### Read, Recognize Numbers

#### Numbers up to 100,000

1. Writing numbers up to 100,000 in words: convert words to digits SQQ
2. Writing numbers up to 100,000 in words: convert digits to words 2RZ

#### Numbers up to one million

3. Writing numbers up to one million in words: convert words to digits 5G4
4. Writing numbers up to one million in words: convert digits to words 7WT

### Compare, Order

#### Whole numbers

1. Compare numbers up to one million 6Y2

#### Fractions

2. Compare fractions 99U
3. Compare fractions: find the missing numerator or denominator KPU
4. Order fractions MSB

#### Decimals

5. Compare decimal numbers DY5
6. Put decimal numbers in order I LVX
7. Put decimal numbers in order II WFD

#### Fractions and decimals

8. Compare decimals and fractions TB7

### Fractional Part

#### Fractions

1. Fractions review YPL
2. Fractions of a whole: word problems XSB
3. Fractions of a group: word problems WZP

#### Mixed numbers

4. Identify mixed numbers UX6

**Decimals**

5. What decimal number is illustrated? B7E

**Equivalent Forms****Fractions**

1. Identify equivalent fractions GSG
2. Write fractions in lowest terms 3R5
3. Convert between improper fractions and mixed numbers JFE

**Decimals**

4. Equivalent decimals BZ2

**Fractions and decimals**

5. Convert fractions and mixed numbers to decimals 5GT
6. Convert decimals to fractions and mixed numbers DBF

**Number Line**

1. Graph decimals on number lines N93
2. Decimal number lines EWY
3. Graph fractions as decimals on number lines 2N9

**Rounding, Estimation**

1. Rounding: up to hundred thousands place QV7
2. Rounding: up to millions place E6V
3. Rounding input/output tables CT2

**Factors, Multiples, Divisibility****Multiples**

1. Choose the multiples of a given number up to 12 ENC

**Factors**

2. Identify factors 2S9
3. Choose numbers with a particular product U9N
4. Find all the factor pairs of a number URL

**Divisibility rules**

5. Divisibility rules UTK
6. Divisibility rules: word problems ZG8

# Computation and Numerical Estimation

## Standard

## IXL skills

### Computation

#### Add and subtract whole numbers

1. Add two numbers up to five digits RG2
2. Subtract numbers up to five digits VP2

#### Multiply whole numbers

3. Multiplication facts to 12 FW9
4. Multiply 1-digit numbers by 2-digit numbers GDW
5. Multiply 1-digit numbers by 3-digit or 4-digit numbers PPM
6. Multiply 1-digit numbers by larger numbers QAN
7. Multiply a 2-digit number by a 2-digit number MLC

#### Divide whole numbers

8. Division facts to 12 R95
9. Divide 2-digit numbers by 1-digit numbers 4T7
10. Divide larger numbers by 1-digit numbers GE8

#### Add and subtract fractions

11. Add and subtract fractions with like denominators FXD
12. Add and subtract mixed numbers with like denominators 9AS
13. Add fractions with unlike denominators 7BJ
14. Subtract fractions with unlike denominators KKS

#### Add and subtract decimals

15. Add and subtract decimals 9SL

### Computation In Context

#### Add and subtract whole numbers

1. Add two numbers up to five digits: word problems ZPY
2. Subtract numbers up to five digits: word problems R9N

**Multiply whole numbers**

3. Compare numbers using multiplication: word problems QKB
4. Multiply a 2-digit number by a 2-digit number: word problems GZG

**Divide whole numbers**

5. Division facts to 12: word problems XZA
6. Divide 2-digit numbers by 1-digit numbers: word problems QMT
7. Divide 2-digit numbers by 1-digit numbers: interpret remainders 5WV
8. Divide larger numbers by 1-digit numbers: word problems DKK
9. Divide larger numbers by 1-digit numbers: interpret remainders J8D

**Add and subtract fractions**

10. Add and subtract fractions with like denominators: word problems XBR
11. Add and subtract fractions with like denominators in recipes LYR
12. Add and subtract mixed numbers with like denominators: word problems 6KM
13. Add and subtract fractions with unlike denominators: word problems YMK

**Add and subtract decimals**

14. Add and subtract decimals: word problems 6HP

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**Estimation****Addition and subtraction**

1. Estimate sums VMD
2. Estimate differences QJY
3. Estimate sums and differences of decimals 2GK

**Multiplication**

4. Estimate products: multiply by 1-digit numbers WDG
5. Estimate products: multiply by 2-digit numbers 2TR

**Division**

6. Estimate quotients using compatible numbers: 1-digit divisors CWE
7. Divide by 1-digit numbers: pick the better estimate 2FS
8. Estimate quotients RCU

**Mixed operations**

9. Estimate sums, differences, products, and quotients: word problems CRD

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**Computation With Money**

1. Find the change, price, or amount paid RTE
2. Price lists with addition and subtraction 92H

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**Recognize When To Estimate**

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**Determine Reasonableness**

1. Estimate products word problems: identify reasonable answers KLA
2. Multi-step word problems: identify reasonable answers K6X

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**Estimation With Money**

1. Round money amounts X9R
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# Operation Concepts

## Standard

## IXL skills

### Operation Sense

#### Place value patterns

1. Addition patterns over increasing place values YFV
2. Subtraction patterns over increasing place values 5SX
3. Multiplication patterns over increasing place values Y5K
4. Division patterns over increasing place values Z5Y

#### Multiplication

5. Compare numbers using multiplication GGE
6. Use one multiplication fact to complete another W6D

### Operation Properties

1. Properties of addition D9R
2. Properties of multiplication B6N
3. Distributive property: find the missing factor US7
4. Multiply using the distributive property LXG

### Represent Operations

#### Multiply whole numbers

1. Multiply 1-digit numbers by 2-digit numbers using area models I VCM
2. Multiply 1-digit numbers by 3-digit or 4-digit numbers using area models I RP9
3. Multiply 2-digit numbers by 2-digit numbers using area models I ASZ

#### Divide whole numbers

4. Divide 2-digit numbers by 1-digit numbers using arrays M49
5. Divide 2-digit numbers by 1-digit numbers using area models 7LG
6. Divide 3-digit numbers by 1-digit numbers using area models 6UL

**Add and subtract fractions**

7. Add fractions with like denominators using area models Y5W
  8. Subtract fractions with like denominators using area models P99
  9. Add fractions with unlike denominators using models 6PM
  10. Subtract fractions with unlike denominators using models D7F
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# Measurement

Standard	IXL skills
<b>Estimate</b>	<ol style="list-style-type: none"> <li>1. Which customary unit is appropriate? <a href="#">YYA</a></li> <li>2. Which metric unit is appropriate? <a href="#">FPM</a></li> </ol>
<b>Time</b>	<ol style="list-style-type: none"> <li>1. Elapsed time <a href="#">TUH</a></li> <li>2. Elapsed time: word problems <a href="#">VCC</a></li> <li>3. Find start and end times: multi-step word problems <a href="#">ZQP</a></li> </ol>
<b>Temperature</b>	
<b>Length, Distance</b>	
<b>Perimeter</b>	<ol style="list-style-type: none"> <li>1. Find the perimeter of rectangles using formulas <a href="#">KGJ</a></li> <li>2. Perimeter of polygons <a href="#">HLW</a></li> <li>3. Perimeter: find the missing side length <a href="#">QAC</a></li> <li>4. Perimeter: word problems <a href="#">GBE</a></li> </ol>
<b>Area</b>	<ol style="list-style-type: none"> <li>1. Find the area or missing side length of a rectangle <a href="#">9E6</a></li> <li>2. Area: word problems <a href="#">JW7</a></li> <li>3. Area of complex figures (with all right angles) <a href="#">38W</a></li> </ol>
<b>Mass, Weight</b>	

# Geometry and Spatial Sense

Standard	IXL skills
<b>Angles</b>	<ol style="list-style-type: none"><li>1. Acute, right, obtuse, and straight angles R5K</li><li>2. Measure angles with a protractor NCN</li><li>3. Estimate angle measurements LUJ</li></ol>
<b>Triangles</b>	<ol style="list-style-type: none"><li>1. Acute, obtuse, and right triangles 7QK</li><li>2. Scalene, isosceles, and equilateral triangles 5UV</li><li>3. Classify triangles U59</li></ol>
<b>Coordinate Geometry</b>	<ol style="list-style-type: none"><li>1. Objects on a coordinate plane 2M5</li><li>2. Graph points on a coordinate plane VVP</li></ol>
<b>Congruence, Similarity</b>	<ol style="list-style-type: none"><li>1. Identify congruent figures TCQ</li></ol>
<b>Symmetry</b>	<ol style="list-style-type: none"><li>1. Count lines of symmetry MWS</li><li>2. Rotational symmetry MP8</li></ol>
<b>Transformations</b>	<ol style="list-style-type: none"><li>1. Reflection, rotation, and translation QUU</li></ol>
<b>Connect 2-D With 3-D Figures</b>	<ol style="list-style-type: none"><li>1. Identify faces of three-dimensional figures K9A</li><li>2. Nets of three-dimensional figures 2QS</li></ol>

# Data Analysis, Statistics, and Probability

Standard	IXL skills
<b>Read Pictograph</b>	1. Interpret pictographs SUD
<b>Read Circle Graph</b>	
<b>Interpret Data Display</b>	1. Interpret pictographs SUD
<b>Draw Conclusions From Data</b>	
<b>Statistics</b>	<ol style="list-style-type: none"><li>1. Find the mode M9S</li><li>2. Find the mean 76J</li><li>3. Find the median QPS</li><li>4. Find the range 7EE</li></ol>
<b>Probability</b>	
<b>Compare Data</b>	

# Patterns, Functions, Algebra

Standard	IXL skills
<b>Missing Element</b>	<ol style="list-style-type: none"><li>1. Complete an increasing number pattern QHB</li><li>2. Complete a geometric number pattern SZJ</li><li>3. Number patterns: mixed review E77</li></ol>
<b>Number Pattern</b>	<ol style="list-style-type: none"><li>1. Use a rule to complete a number pattern 5P2</li><li>2. What is true about the given pattern? C9H</li><li>3. What is true about the pattern made by the rule? 35J</li></ol>
<b>Function</b>	<ol style="list-style-type: none"><li>1. Multiplication input/output tables BEP</li><li>2. Input/output tables with addition, subtraction, multiplication, and division HDS</li></ol>
<b>Rules</b>	<ol style="list-style-type: none"><li>1. Multiplication input/output tables: find the rule KQG</li></ol>
<b>Model Problem Situation</b>	<ol style="list-style-type: none"><li>1. Number patterns: word problems C62</li></ol>

# Problem Solving and Reasoning

Standard	IXL skills
<b>Identify Missing/Extra Information</b>	<ol style="list-style-type: none"> <li>1. Word problems with extra or missing information X64</li> </ol>
<b>Formulate Problem</b>	
<b>Develop, Explain Strategy</b>	<ol style="list-style-type: none"> <li>1. Solve word problems using guess-and-check PCA</li> <li>2. Multi-step word problems EA9</li> <li>3. Multi-step word problems involving remainders SLS</li> </ol>
<b>Deductive/Inductive Reasoning</b>	<p><b>Angle relationships</b></p> <ol style="list-style-type: none"> <li>1. Adjacent angles VJY</li> <li>2. Angle measures: word problems YUA</li> </ol> <p><b>Number relationships</b></p> <ol style="list-style-type: none"> <li>3. Find two numbers based on sum, difference, product, and quotient RLS</li> <li>4. Find the order JBQ</li> </ol>
<b>Model Problem Situation, Solution</b>	<p><b>One-step problems</b></p> <ol style="list-style-type: none"> <li>1. Addition, subtraction, multiplication, and division word problems QKS</li> </ol> <p><b>Multi-step problems</b></p> <ol style="list-style-type: none"> <li>2. Multi-step word problems with strip diagrams CZQ</li> <li>3. Use strip diagrams to represent and solve multi-step word problems G8Z</li> <li>4. Solve decimal problems using diagrams WCK</li> </ol> <p><b>Area and perimeter</b></p> <ol style="list-style-type: none"> <li>5. Area and perimeter: word problems LTP</li> <li>6. Use area and perimeter to determine cost 5GF</li> </ol>

# Communication

## Standard

## IXL skills

### Model Math Situations

#### Fractions

1. Find equivalent fractions using area models HYC
2. Compare fractions using models 7XF
3. Graph and order fractions on number lines 7GK

#### Decimals

4. Compare decimals using models CV7
5. Compare decimals on number lines T2W

#### Fractions and decimals

6. Model decimals and fractions TPV
7. Compare decimals and fractions on number lines 8YG

### Relate Models to Ideas

#### Multiply whole numbers

1. Multiply 1-digit numbers by 2-digit numbers using area models II HZX
2. Multiply 1-digit numbers by 3-digit or 4-digit numbers using area models II WKL
3. Multiply 2-digit numbers by 2-digit numbers using area models II 8K7

#### Divide whole numbers

4. Divide 2-digit numbers by 1-digit numbers using arrays M49
5. Divide 2-digit numbers by 1-digit numbers using area models 7LG
6. Divide 3-digit numbers by 1-digit numbers using area models 6UL

#### Add and subtract fractions

7. Decompose fractions into unit fractions using models QG2
8. Add fractions with like denominators using number lines 6QH
9. Subtract fractions with like denominators using number lines MJX

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**Make Conjectures**

1. Rounding puzzles XVJ

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**Explain Thinking**

1. Identify mistakes in number patterns PFV

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**Explain Solution Process**

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