



IXL Skill Plan

Oklahoma Academic Standards: Grade 3



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N | Numbers & Operations

Standard	IXL skills
3.N.1 Compare and represent whole numbers up to 100,000 with an emphasis on place value and equality.	
3.N.1.1: Read, write, discuss, and represent whole numbers up to 100,000. Representations should include but are not limited to numerals, words, pictures, number lines, and manipulatives (e.g., 350 = 3 hundreds, 5 tens = 35 tens = 3 hundreds, 4 tens, 10 ones).	1. Place value models up to thousands DDS 2. Compare and order numbers using number lines SKT 3. Word names for numbers: up to 100,000 WAU
3.N.1.2: Use place value to describe whole numbers between 1,000 and 100,000 in terms of ten thousands, thousands, hundreds, tens and ones, including written, standard, and expanded forms.	Place value 1. Place value names up to ten thousands A8F 2. Value of a digit up to ten thousands DHS 3. Convert between place values U7F 4. Regroup thousands, hundreds, tens, and ones - ways to make a number 8VN 5. Place value word problems 5TF Standard and expanded form 6. Convert to/from a number KSN 7. Convert between standard and expanded form 2GS 8. Convert from expanded form 8MP
3.N.1.3: Applying knowledge of place values, use mental strategies (no written computations) to find 100 more or 100 less than a given number, 1,000 more or 1,000 less than a given number, and 10,000 more or 10,000 less than a given number, up to a five-digit number.	1. Input/output tables: add and subtract 100 or 1,000 R2K
3.N.1.4: Use place value to compare and order whole numbers, up to 100,000, using comparative language, numbers, and symbols.	Compare numbers 1. Which number is greatest/least? UG2 2. Compare numbers up to 10,000 D2N 3. Compare numbers up to 100,000 FVA Order numbers 4. Order numbers up to 10,000 M5T

5. Order numbers up to 100,000 5MV

3.N.1.5: Use place value understanding to round numbers to the nearest thousand, ten-thousand and hundred thousand.

1. Rounding: up to ten thousands place VTF
2. Round to the greatest place value KMD

3.N.2 Solve real-world and mathematical problems using addition, subtraction, multiplication, and division.

3.N.2.1: Represent multiplication facts by modeling a variety of approaches (e.g., manipulatives, repeated addition, equal-sized groups, arrays, area models, equal jumps on a number line, skip counting).

Equal groups

1. Count equal groups 9K7
2. Identify multiplication expressions for equal groups 9AE
3. Write multiplication sentences for equal groups V98
4. Multiply by 0 or 1 with equal groups MZE

Arrays

5. Identify multiplication expressions for arrays HZL
6. Write multiplication sentences for arrays 5FZ
7. Make arrays to model multiplication PPR
8. Write two multiplication sentences for an array QLK

Number lines

9. Multiply using number lines XHY
10. Write multiplication sentences for number lines NTV

Relate addition and multiplication

11. Relate addition and multiplication for equal groups GGC
12. Relate addition and multiplication P74

3.N.2.2: Demonstrate fluency with multiplication facts using factors up to 10.

Multiplication skill builders

1. Multiply 0 by numbers up to 10 BGK
2. Multiply 1 by numbers up to 10 CRE
3. Multiply 2 by numbers up to 10 94M
4. Multiply 3 by numbers up to 10 38K
5. Multiply 4 by numbers up to 10 5U6
6. Multiply 5 by numbers up to 10 Y9E
7. Multiply 6 by numbers up to 10 SX6

- 8. Multiply 7 by numbers up to 10 9PT
- 9. Multiply 8 by numbers up to 10 SMR
- 10. Multiply 9 by numbers up to 10 SUH
- 11. Multiply 10 by numbers up to 10 6YD

Multiplication facts for 2, 3, 4, 5, and 10

- 12. Multiplication facts for 2, 3, 4, 5, and 10 DW5
- 13. Multiplication facts for 2, 3, 4, 5, and 10: true or false? 87M
- 14. Multiplication facts for 2, 3, 4, 5, and 10: sorting REN

Multiplication facts for 6, 7, 8, and 9

- 15. Multiplication facts for 6, 7, 8, and 9 XT7
- 16. Multiplication facts for 6, 7, 8, and 9: true or false? EEY
- 17. Multiplication facts for 6, 7, 8, and 9: sorting TZ7

Multiplication facts up to 10

- 18. Multiplication facts up to 10 PNV
- 19. Multiplication facts up to 10: true or false? 3K8
- 20. Multiplication facts up to 10: sorting SUJ
- 21. Multiplication facts up to 10: select the missing factors WZA
- 22. Multiplication sentences up to 10: true or false? MTU
- 23. Squares up to 10×10 GMM
- 24. Multiplication input/output tables 8CM

3.N.2.3: Use strategies and algorithms based on knowledge of place value and equality to fluently add and subtract up to five-digit numbers (answer not to exceed 100,000).

Add numbers up to three digits

- 1. Use number lines to add three-digit numbers 8XG
- 2. Use compensation to add: up to three digits H7K
- 3. Add two numbers up to three digits E83
- 4. Addition up to three digits: fill in the missing digits LYB
- 5. Add three numbers up to three digits each GSY
- 6. Addition input/output tables: up to three digits MUE

Add numbers up to four digits

7. Addition patterns over increasing place values 5RG
8. Add two numbers up to four digits P2Q
9. Addition up to four digits: fill in the missing digits LPZ
10. Add three numbers up to four digits each X6Z

Subtract numbers up to three digits

11. Use compensation to subtract: up to three digits WPW
12. Use expanded form to subtract three-digit numbers YM7
13. Subtract numbers up to three digits EHT
14. Subtract across zeros 93U
15. Subtraction input/output tables: up to three digits J9S

Subtract numbers with four or more digits

16. Subtraction patterns over increasing place values VKD
17. Subtract two numbers up to four digits 83X
18. Subtract two numbers up to four digits: word problems CKX
19. Subtract two numbers up to five digits TA2
20. Subtract numbers with four or more digits Y57
21. Subtraction: fill in the missing digits V63

Mixed operations

22. Add and subtract three-digit numbers 2TD
23. Add and subtract numbers up to four digits YMW
24. Add and subtract five-digit numbers ARX

3.N.2.4: Recognize when to round numbers and apply understanding to estimate sums and differences to the nearest ten thousand, thousand, hundred, and ten.

Estimate sums

1. Estimate sums by rounding: up to 1,000 3Y9
2. Estimate sums by rounding: word problems WB2
3. Estimate sums by rounding: up to 100,000 MBN

Estimate differences

4. Estimate differences by rounding: up to 1,000 A47

5. Estimate differences by rounding: word problems M42

6. Estimate differences by rounding: up to 100,000 QDF

Estimate sums and differences

7. Estimate sums and differences: word problems BU8

8. Estimate to compare sums and differences NMD

3.N.2.5: Use addition and subtraction to solve problems involving whole numbers. Use various strategies, including the relationship between addition and subtraction and the context of the problem to assess the reasonableness of results.

Addition word problems

1. Add two numbers up to three digits: word problems QU2

2. Add three numbers up to three digits each: word problems NPU

3. Add two numbers up to four digits: word problems CNN

4. Add three numbers up to four digits each: word problems 8A4

Subtraction word problems

5. Subtract numbers up to three digits: word problems K88

6. Subtract two numbers up to four digits: word problems CKX

Addition and subtraction word problems

7. Add and subtract data from tables HX2

8. Addition and subtraction word problems: up to three digits XSH

9. Find two numbers based on sum and difference 9Z7

10. Two-step addition and subtraction word problems CBA

Relationship between addition and subtraction

11. Complete the addition sentence: up to three digits D69

12. Balance addition equations: up to three digits 7PE

13. Complete the subtraction sentence: up to three digits MD8

14. Balance subtraction equations: up to three digits 8VK

3.N.2.6: Represent division facts and divisibility by modeling a variety of approaches (e.g., repeated subtraction, equal sharing, forming equal groups) to show the relationship between multiplication and division.

3.N.2.7: Apply the relationship between multiplication and division to represent and solve problems.

3.N.2.8: Use various strategies (e.g., base ten blocks, area models, arrays, repeated addition, algorithms)

15. Complete the addition sentence: up to four digits MH7
16. Complete the addition or subtraction sentence: up to three digits QSS

Division models

1. Divide by counting equal groups UYK
2. Write division sentences for groups FSX
3. Division sentences with 1 and 0 FYZ
4. Write division sentences for arrays 8RW
5. Make arrays to model division R8J
6. Divide using number lines GB2
7. Divide using repeated subtraction V5C

Relate multiplication and division

8. Relate multiplication and division for groups FTU
9. Relate multiplication and division for arrays XSK
10. Relate multiplication and division 67L

Division facts

11. Division facts up to 10 M8T

Word problems

1. Multiplication word problems with factors up to 10 9TA
2. Multiplication word problems with factors up to 10: find the missing number F6C
3. Division word problems ECS
4. Multiplication and division word problems 85K

Relate multiplication and division

5. Multiplication facts up to 10: find the missing factor FZA
6. Relate multiplication and division for groups FTU
7. Relate multiplication and division for arrays XSK
8. Relate multiplication and division 67L
9. Division facts up to 10: find the missing number HE7

Multiply using place value

1. Multiply by a multiple of ten using place value GPN

based on knowledge of place value, equality, and properties of addition and multiplication to multiply a two-digit factor by a one-digit factor.

2. Multiply by a multiple of ten MS6

Multiply using models

3. Multiply one-digit numbers by teen numbers using grids 8XQ

4. Multiply one-digit numbers by two-digit numbers using area models I V9Q

5. Multiply one-digit numbers by two-digit numbers using area models II QXM

Multiply two-digit and one-digit numbers

6. Multiply one-digit numbers by two-digit numbers 9PM

7. Multiply one-digit numbers by two-digit numbers: word problems X5D

Properties of multiplication

8. Solve using properties of multiplication YPF

9. Multiply using the distributive property 6W7

3.N.3 Use and justify fractional representations in real-world and mathematical problems.

3.N.3.1: Read and write fractions with words and symbols using appropriate terminology (i.e., numerator and denominator).

Write fractions

1. Understand fractions: fraction bars 6JL

2. Understand fractions: area models RTW

3. Write fractions using numbers and words 7FX

Match fractions

4. Match fractions to models: halves, thirds, and fourths Y55

5. Match fractions to models YHL

3.N.3.2: Model fractions using length, set, and area for halves, thirds, fourths, sixths, and eighths.

Area models

1. Make halves, thirds, and fourths HGP

2. Make sixths and eighths KTM

3. Make halves, thirds, fourths, sixths, and eighths JHE

4. Show fractions: fraction bars ZPW

5. Show fractions: area models NLE

6. Select fractions equivalent to whole numbers using models GKZ

Length models

7. Graph unit fractions on number lines CBW
8. Graph fractions less than 1 on number lines HWJ
9. Graph fractions on number lines 7QM
10. Graph smaller or larger fractions on a number line 2PH
11. Graph fractions equivalent to 1 on number lines 7BL

3.N.3.3: Apply understanding of unit fractions and use this understanding to compose and decompose fractions related to the same whole.

Area models

1. Match unit fractions to models CPK

Number lines

2. Fractions of number lines: unit fractions TBX
3. Identify unit fractions on number lines JVC
4. Graph unit fractions on number lines CBW

Decompose fractions

5. Decompose fractions into unit fractions 99A

Word problems

6. Unit fractions: modeling word problems UV8
7. Unit fractions: word problems HM7

3.N.3.4: Use models and number lines to order and compare fractions that are related to the same whole.

Compare using models

1. Compare fractions with like denominators using models TDE
2. Compare fractions using models MJ2

Compare using number lines

3. Graph smaller or larger fractions on a number line 2PH
4. Graph and compare fractions with like denominators on number lines 63U
5. Compare fractions using number lines 38T

Compare and order fractions

6. Compare fractions with like denominators 8SU
7. Compare fractions and justify your answer QB7
8. Order fractions with like denominators HYZ

3.N.4 Determine the value of a set of coins and determine the value of a set of bills in monetary transactions.

3.N.4.1: Use addition and subtraction to determine the value of a collection of coins up to one dollar using the cent symbol and in monetary transactions.

1. Count money - pennies, nickels, dimes, and quarters ST8
2. Purchases - do you have enough money - up to \$1 GMC
3. Add and subtract money - up to \$1: word problems T8H

3.N.4.2: Add and subtract a collection of bills up to twenty dollars using whole dollars in monetary transactions.

1. Count bills up to \$20 APU

A | Algebraic Reasoning & Algebra

Standard	IXL skills
3.A.1 Describe and create representations of numerical and geometric patterns.	
3.A.1.1: Create, describe, and extend patterns involving addition, subtraction, or multiplication to solve problems in a variety of contexts.	Skip-counting patterns 1. Skip-counting puzzles 78C Number sequences 2. Skip-counting sequences 5FD 3. Number sequences: word problems CY2 Addition and subtraction patterns 4. Addition patterns over increasing place values 5RG 5. Subtraction patterns over increasing place values VKD 6. Use a rule to complete a number pattern 25S Multiplication patterns 7. Identify multiplication patterns in tables CK9 8. Multiplication: real-world patterns 8VV
3.A.1.2: Describe the rule (limited to a single operation) for a pattern from an input/output table or function machine involving addition, subtraction, or multiplication.	Addition and subtraction 1. Addition input/output tables: up to three digits MUE 2. Subtraction input/output tables: up to three digits J9S 3. Addition and subtraction input/output tables: find the rule BHW Multiplication 4. Multiplication input/output tables 8CM 5. Multiplication input/output tables: find the rule D5U
3.A.1.3: Explore and develop visual representations of increasing and decreasing geometric patterns and construct the next steps.	1. Growing patterns 5FN 2. Find the next row in a growing pattern 8SQ 3. Shape patterns BSB

3.A.2 Use number sentences involving multiplication and unknowns to represent and solve real-world and mathematical problems.

3.A.2.1: Use number sense with the properties of addition, subtraction, and multiplication, to find unknowns (represented by symbols) in one-step equations. Generate real-world situations to represent number sentences.

1. Solve for the unknown number: addition and subtraction only BQT
2. Solve for the unknown number D65
3. Write variable equations to represent word problems: addition, subtraction, and multiplication 5XU

3.A.2.2: Identify, represent, and apply the number properties (commutative, identity, and associative properties of addition and multiplication) using models and manipulatives to solve problems.

Properties of addition

1. Properties of addition NY2
2. Complete the equation using properties of addition CGS
3. Add using properties KYA
4. Multiply one-digit numbers using grids HXY

Properties of multiplication

5. Multiply by 0 or 1 with equal groups MZE
6. Properties of multiplication MPE
7. Solve using properties of multiplication YPF
8. Multiply by 0 or 1: complete the sentence RBK
9. Distributive property: find the missing factor 7VP
10. Multiply using the distributive property 6W7

GM | Geometry & Measurement

Standard	IXL skills
3.GM.1 Analyze and use geometric attributes to describe and create polygons and three-dimensional figures in various contexts.	
3.GM.1.1: Sort three-dimensional shapes based on attributes.	Identify three-dimensional shapes - Three-dimensional shapes in the real world I GUF - Three-dimensional shapes in the real world II 2LB - Identify three-dimensional shapes BDP Attributes of three-dimensional shapes - Count vertices, edges, and faces ZBU - Identify faces of three-dimensional shapes S8P
3.GM.1.2: Build a three-dimensional figure using unit cubes when shown a picture of a three-dimensional shape.	
3.GM.1.3: Classify angles within a polygon as acute, right, obtuse, and straight.	- Angles greater than, less than, or equal to a right angle 2YR - Acute, right, obtuse, and straight angles 4D8
3.GM.2 Understand measurable attributes of real-world and mathematical objects using various tools.	
3.GM.2.1: Find the perimeter of a polygon, given whole number lengths of the sides, using a variety of models.	- Perimeter of figures on grids VLG - Perimeter of rectangles ZJT - Perimeter of rectilinear shapes 65Z - Perimeter of polygons LLY - Find the perimeter: word problems PCZ
3.GM.2.2: Analyze why length and width are multiplied to find the area of a rectangle by decomposing the rectangle into one unit by one unit squares and viewing these as rows and columns to determine the area.	- Tile a rectangle and find the area EKK - Multiply to find the area of a rectangle made of unit squares S7G - Create rectangles with a given area V73
3.GM.2.3: Count cubes systematically to identify the number of cubes needed to pack the whole or	Volume TUQ

half of a three-dimensional structure.

3.GM.2.4: Find the area of two-dimensional figures by counting the total number of same-size unit squares that fill the shape without gaps or overlaps.

Find area

1. Find the area of figures made of unit squares FLQ
2. Select figures with a given area XR6
3. Select two figures with the same area 7GW
4. Find the area of rectangles with missing unit squares KTN

Create figures

5. Create figures with a given area Z2H
6. Create rectangles with a given area V73

3.GM.2.5: Choose an appropriate measurement instrument and measure the length of objects to the nearest whole centimeter or whole meter.

1. Which metric unit of length is appropriate? YWR
2. Measure using a centimeter ruler MPX

3.GM.2.6: Choose an appropriate measurement instrument and measure the length of objects to the nearest whole yard, whole foot, or half inch.

1. Measure using an inch ruler: nearest $\frac{1}{4}$ inch LC2
2. Which customary unit of length is appropriate? WRB

3.GM.2.7: Use an analog thermometer to determine temperature to the nearest degree in Fahrenheit and Celsius.

1. Read a thermometer 6EQ

3.GM.3 Solve problems by telling time to the nearest five-minute interval.

3.GM.3.1: Read and write time to the nearest five-minute interval (analog and digital).

1. Match digital clocks and times: to the nearest 5 minutes 5J8
2. Read clocks and write times: to the nearest 5 minutes 64G

3.GM.3.2: Determine the solutions to problems involving addition and subtraction of time in intervals of five minutes, up to one hour, using pictorial models, number line diagrams, or other tools.

1. Find the end time U7B
2. Find the start time: word problems X63
3. Find the start time, the end time, or the elapsed time: word problems 9JB
4. Elapsed time word problems: up to 5 minutes FTJ



D | Data & Probability

Standard	IXL skills
3.D.1 Collect, organize, and analyze data.	
3.D.1.1: Collect and organize a data set with multiple categories using a frequency table, line plot, pictograph, or bar graph with scaled intervals.	1. Create scaled bar graphs RPF 2. Create scaled picture graphs AVG 3. Create line plots H5J 4. Create frequency tables 9TG
3.D.1.2: Solve one- and two-step problems using categorical data represented with a frequency table, pictograph, or bar graph with scaled intervals.	1. Interpret scaled bar graphs V54 2. Use bar graphs to solve problems BCJ 3. Interpret scaled picture graphs Y5D 4. Interpret line plots YXD 5. Interpret frequency tables 5KV