



IXL Skill Plan for the ACT[®] Aspire 5th grade



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Emerging

Operations and Algebraic Thinking

Standard	IXL skills
Write numerical expressions	1. Write numerical expressions: two operations 8ME
Relate terms in a number sentence or pattern	

Number and Operations in Base Ten

Standard	IXL skills
Understand the relationship between place values	1. Relationship between place values: 10 times as much 9DJ
Read and write decimals	1. Word names for decimal numbers 6JR
Interpret decimal models	1. What decimal number is illustrated? CTP 2. Decimal number lines DQ2

Number and Operations - Fractions

Standard	IXL skills
Use models to multiply fractions	1. Multiply two unit fractions using models HDJ 2. Multiply two fractions using models UAY
Use models to add or subtract fractions and to multiply fractions by whole numbers	<p>Addition and subtraction</p> <ol style="list-style-type: none"> Add fractions with like denominators using area models Y5W Subtract fractions with like denominators using area models P99 Add and subtract fractions with like denominators using number lines SUT <p>Multiplication</p> <ol style="list-style-type: none"> Multiply unit fractions by whole numbers using number lines X8E

5. Multiply unit fractions by whole numbers using models AFS
6. Multiply fractions by whole numbers using arrays RB9
7. Multiply fractions by whole numbers using number lines DRU

Measurement and Data

Standard	IXL skills
Convert between metric units to solve problems	1. Compare and convert metric units PJL
Solve problems involving the volume of right rectangular prisms	<ol style="list-style-type: none"> 1. Volume of cubes and rectangular prisms TFL 2. Volume of cubes and rectangular prisms: word problems NR6
Use line plots with fractions to solve problems	1. Create and interpret line plots: denominators of 2 and 4 Y67
Use unit cubes to model volume	1. Volume of rectangular prisms made of unit cubes WG8

Geometry

Standard	IXL skills
Identify triangles and quadrilaterals and reason about their properties	<p>Triangles</p> <ol style="list-style-type: none"> 1. Acute, obtuse, and right triangles N77 2. Scalene, isosceles, and equilateral triangles R94 <p>Quadrilaterals</p> <ol style="list-style-type: none"> 3. Identify parallelograms AJB 4. Identify trapezoids FZD 5. Identify rectangles XAE 6. Identify rhombuses C66

Modeling

Standard	IXL skills
Use manipulatives to represent problems	1. Multiply two unit fractions using models HDJ 2. Multiply two fractions using models UAY

Justification and Explanation

Standard	IXL skills
Explain and generate patterns and sequences	1. Use a rule to complete a number sequence RPP
Recognize errors in reasoning	
Draw conclusions from two or more statements	1. Find the order G2C

Integrating Essential Skills

Standard	IXL skills
Add, subtract, and multiply single digit whole numbers	1. Multiplication facts to 10 C7L
Understand place value in whole numbers	1. Place value 83P
Understand fractions of a whole	1. Fractions of a whole: word problems 2VP
Add and subtract fractions with like denominators	1. Add and subtract fractions with like denominators FXW 2. Add and subtract fractions with like denominators: word problems 7YQ
Multiply whole numbers by fractions	Unit fractions 1. Multiply unit fractions by whole numbers using number lines X8E 2. Multiply unit fractions by whole numbers using models AFS Fractions 3. Multiply fractions by whole numbers using arrays RB9

4. Multiply fractions by whole numbers using number lines DRU

Recognize and complete patterns

1. Complete an increasing number sequence GZW
2. Complete a geometric number sequence X8Q

Recognize acute, right, and obtuse angles

1. Acute, right, and obtuse angles W6Z

Understand properties of geometric figures involving sides and angles

1. Parallel sides in quadrilaterals AJV
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Close

Operations and Algebraic Thinking

Standard	IXL skills
Translate verbal expressions into symbolic expressions	1. Write numerical expressions: two operations 8ME
Compare numerical patterns	1. Compare patterns XPM
Relate terms in a number sentence or pattern	1. Complete a table for a two-variable relationship NEK

Number and Operations in Base Ten

Standard	IXL skills
Multiply by powers of ten	1. Multiply a whole number by a power of ten: with exponents 92K 2. Multiply a decimal by a power of ten: with exponents 5KC
Compare decimals	1. Compare decimals using grids QTG 2. Compare decimals on number lines CUF 3. Compare decimal numbers DY5
Use models, place value, or properties to perform operations with decimals	Addition and subtraction 1. Add and subtract decimal numbers 7VJ Multiplication 2. Multiply a decimal by a one-digit whole number using blocks U5Q 3. Multiply a decimal by a one-digit whole number using the distributive property 9BA 4. Multiply a decimal by a two-digit whole number using area models VNT 5. Multiply decimals using grids 66Z Division 6. Divide decimals using blocks: complete the equation DDK

7. Divide decimals using area models: complete the equation U6C

Construct and use models to round decimals

Number and Operations - Fractions

Standard	IXL skills
Add and subtract fractions and mixed numbers with unlike denominators	<p>Fractions</p> <ol style="list-style-type: none"> 1. Add fractions with unlike denominators using models 2BS 2. Subtract fractions with unlike denominators using models QA6 <p>Mixed numbers</p> <ol style="list-style-type: none"> 3. Add and subtract mixed numbers with unlike denominators RZC 4. Add and subtract mixed numbers with unlike denominators: word problems 48E
Divide fractions and whole numbers	<p>Unit fractions</p> <ol style="list-style-type: none"> 1. Divide unit fractions and whole numbers using area models A7W 2. Divide whole numbers and unit fractions SPB <p>Fractions</p> <ol style="list-style-type: none"> 3. Divide fractions by whole numbers FKT 4. Divide whole numbers by fractions RHL
Use models to show equivalent fractions	<ol style="list-style-type: none"> 1. Identify equivalent fractions using number lines U7Y 2. Find equivalent fractions using area models AJH

Measurement and Data

Standard	IXL skills
Convert between metric units to solve problems	<ol style="list-style-type: none"> 1. Conversion tables - metric units 7QS 2. Convert metric mixed units LCG 3. Add and subtract metric mixed units 6LL

Count unit cubes to find volume

1. Volume of rectangular prisms made of unit cubes WG8
2. Volume of irregular figures made of unit cubes WCE

Solve problems involving volume of right rectangular prisms

1. Relationship between volume and the area of the base: word problems QMA
2. Compare volumes and dimensions of rectangular prisms: word problems JP6

Use line plots with fractions to solve problems

1. Create and interpret line plots with fractions XBS

Multiply side lengths to find the volume of right rectangular prisms

1. Volume of cubes and rectangular prisms TFL
2. Volume of cubes and rectangular prisms with decimal side lengths RYY

Find the volume of irregular rectangular prisms

1. Volume of compound figures I APW

Geometry**Standard****IXL skills****Graph points on the coordinate plane**

1. Graph points on a coordinate plane AST

Classify triangles and reason about their properties

1. Acute, obtuse, and right triangles N77
2. Scalene, isosceles, and equilateral triangles R94
3. Classify triangles C64

Classify quadrilaterals and reason about their properties

1. Classify quadrilaterals 6ZQ

Create a graph in the first quadrant of the coordinate plane

1. Graph points from a table HWV
2. Use a rule to complete a table and a graph N9B

Modeling**Standard****IXL skills****Interpret problems using manipulatives**

1. Multiply a decimal by a one-digit whole number using blocks U5Q
2. Divide decimals using blocks: complete the equation DDK

Justification and Explanation

Standard	IXL skills
Use conditional statements	1. Relate multiplication and division VA6
Create visual representations	1. Model decimals and fractions ZKL 2. Compare decimals on number lines CUF 3. Multiply a decimal by a two-digit whole number using area models VNT
Explain procedures	1. Add using properties RZR 2. Multiply using properties 6PN
Provide counterexamples	
Use patterns to draw conclusions	1. Multiplication patterns over increasing place values BCK
Explain errors in reasoning	1. Identify mistakes involving the order of operations JLJ

Integrating Essential Skills

Standard	IXL skills
Explain standard algorithms for addition and subtraction	1. Add and subtract whole numbers up to billions 6J2 2. Fill in the missing digits ZFG
Write whole numbers in expanded form	1. Convert between standard and expanded form HU7
Generate and model equivalent fractions	1. Equivalent fractions MKA 2. Identify equivalent fractions using number lines U7Y 3. Find equivalent fractions using area models AJH
Understand units of measure	1. Compare and convert metric units PJL

Ready

Operations and Algebraic Thinking

Standard	IXL skills
Interpret numerical expressions	
Write expressions to represent real-world problems	1. Write numerical expressions for word problems NF5
Graph relationships between numerical patterns	1. Graph a two-variable relationship QEH 2. Use a rule to complete a table and a graph N9B

Number and Operations in Base Ten

Standard	IXL skills
Understand the relationship between place values	1. Relationship between place values ESA 2. Relationship between decimal place values DVM
Multiply or divide by powers of ten	1. Divide by a power of ten: with exponents CL2 2. Multiply and divide by a power of ten: with exponents FXQ
Multiply whole numbers using the standard algorithm	1. Multiply 2-digit numbers by 2-digit numbers LLJ 2. Multiply 2-digit numbers by 3-digit numbers JHB 3. Multiply 2-digit numbers by larger numbers 9VQ
Round decimals to the hundredths place	1. Round decimals MPB
Write decimals in expanded form	1. Convert decimals between standard and expanded form WTU
Multiply decimals and whole numbers	1. Multiply a decimal by a one-digit whole number XNY 2. Multiply a decimal by a multi-digit whole number PGM

Number and Operations - Fractions

Standard	IXL skills
Multiply fractions by whole numbers and explain the result	<ol style="list-style-type: none"> Scaling whole numbers by fractions QH2 Scaling whole numbers by fractions: justify your answer Q7M
Add and subtract fractions and mixed numbers with unlike denominators	<p>Fractions</p> <ol style="list-style-type: none"> Add fractions with unlike denominators D9N Subtract fractions with unlike denominators VSP Add and subtract fractions with unlike denominators: word problems TCD <p>Mixed numbers</p> <ol style="list-style-type: none"> Add mixed numbers with unlike denominators FHD Subtract mixed numbers with unlike denominators FAA Add and subtract mixed numbers: word problems 6BH Add and subtract fractions in recipes W9K

Measurement and Data

Standard	IXL skills
Convert among units in non-metric measurement systems to solve problems	<ol style="list-style-type: none"> Compare and convert customary units 8DZ Conversion tables - customary units 7HU Compare customary units by multiplying WU8
Identify appropriate units of measurement	<ol style="list-style-type: none"> Choose the appropriate customary unit of measure UDF Choose the appropriate metric unit of measure S9U
Solve multi-step problems involving the volume of right rectangular prisms	<ol style="list-style-type: none"> Compare volumes and dimensions of rectangular prisms: word problems JP6
Use line plots with fractions to solve problems	<ol style="list-style-type: none"> Create and interpret line plots with fractions XBS

Find the volume of irregular rectangular prisms

1. Volume of compound figures J83

Geometry

Standard	IXL skills
Identify points in the first quadrant of the coordinate plane	<ol style="list-style-type: none"> 1. Objects on a coordinate plane NTR
Classify and compare triangles and quadrilaterals	<p>Triangles</p> <ol style="list-style-type: none"> 1. Classify triangles C64 <p>Quadrilaterals</p> <ol style="list-style-type: none"> 2. Classify quadrilaterals 6ZQ 3. Identify the relationships between quadrilaterals KCG 4. Describe relationships among quadrilaterals SZT
Interpret graphs	<ol style="list-style-type: none"> 1. Analyze graphed relationships SMY

Modeling

Standard	IXL skills
Evaluate manipulative models	<ol style="list-style-type: none"> 1. Multiplying fractions by whole numbers: choose the model NKU 2. Multiply fractions by whole numbers using models: complete the equation VXF

Justification and Explanation

Standard	IXL skills
Support claims and draw conclusions	
Use conditional statements, visual representations, computations, and procedures	<ol style="list-style-type: none"> 1. Compare decimals using grids QTG 2. Compare decimals on number lines CUF
Justify and defend conclusions by explaining errors in reasoning and providing counterexamples	<p>Order of operations</p> <ol style="list-style-type: none"> 1. Identify mistakes involving the order of operations JLJ

Quadrilaterals

2. Identify the relationships between quadrilaterals KCG
3. Describe relationships among quadrilaterals SZT

Integrating Essential Skills**Standard****IXL skills****Divide single-digit whole numbers**

1. Division facts to 12 ZWQ
2. Divide multi-digit numbers by 1-digit numbers XHZ

Exceeding

Operations and Algebraic Thinking

Standard	IXL skills
Write and evaluate expressions	<ol style="list-style-type: none"> Evaluate numerical expressions with parentheses HGW Evaluate numerical expressions with parentheses and brackets TVY Evaluate numerical expressions with parentheses in different places 9F5
Describe relationships in graphs	<ol style="list-style-type: none"> Analyze graphed relationships SMY
Write and use expressions to solve real-world problems	<ol style="list-style-type: none"> Write numerical expressions for word problems NF5

Number and Operations in Base Ten

Standard	IXL skills
Compare numbers in expanded or standard form	<ol style="list-style-type: none"> Compare numbers up to billions CLB
Solve multi-step problems with whole numbers and decimals	<p>Whole numbers</p> <ol style="list-style-type: none"> Multi-step word problems: multiplicative comparison V59 Multi-step word problems Z76 Multi-step word problems involving remainders XGE <p>Decimals</p> <ol style="list-style-type: none"> Add and subtract money: multi-step word problems MCG Multiply money amounts: multi-step word problems THS
Round decimals to any place value	<ol style="list-style-type: none"> Round decimals MPB Compare, order, and round decimals: word problems 2MV

Number and Operations - Fractions

Standard	IXL skills
Solve real-world multiplication problems with fractions and mixed numbers	<ol style="list-style-type: none"> 1. Multiply fractions by whole numbers: word problems U2V 2. Multiply two fractions: word problems 38Y 3. Multiplication with mixed numbers: word problems 5W6 4. Multiply fractions and mixed numbers in recipes QHN
Solve multi-step problems involving fractions	<ol style="list-style-type: none"> 1. Add 3 or more fractions: word problems BFQ

Measurement and Data

Standard	IXL skills
Convert units within non-metric measurement systems to solve multi-step problems	<ol style="list-style-type: none"> 1. Multi-step problems with customary unit conversions MJ9
Solve multi-step problems involving the volume of composite figures	<ol style="list-style-type: none"> 1. Volume of compound figures J83
Make line plots with fractions	<ol style="list-style-type: none"> 1. Create and interpret line plots with fractions XBS
Use the meaning of quantities and units to solve problems	<ol style="list-style-type: none"> 1. Compare customary units by multiplying WU8 2. Multi-step problems with customary or metric unit conversions ST6

Geometry

Standard	IXL skills
Use graphs to represent and analyze real-world problems	<ol style="list-style-type: none"> 1. Graph points from a table HWV 2. Analyze graphed relationships SMY 3. Graph patterns using rules PN2
Classify polygons	<ol style="list-style-type: none"> 1. Sort polygons into Venn diagrams US8 2. Properties of polygons TQU

Modeling

Standard	IXL skills
Use manipulatives to improve models	<ol style="list-style-type: none"> 1. Multiply with mixed numbers using area models WVR 2. Multiply a decimal by a two-digit whole number using area models VNT 3. Multiply a mixed number by a whole number using a model II FWN

Justification and Explanation

Standard	IXL skills
Support claims with evidence and clear solution paths	<ol style="list-style-type: none"> 1. Identify mistakes involving the order of operations JLJ
Thoroughly justify conclusions by explaining errors in reasoning and providing counterexamples	<ol style="list-style-type: none"> 1. Scaling whole numbers by fractions: justify your answer Q7M

Integrating Essential Skills

Standard	IXL skills
Ensure that fractions refer to the same whole when comparing	<ol style="list-style-type: none"> 1. Compare fractions and mixed numbers U8J