IXL Skill Plan for the ACT® Aspire

3rd grade

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Emerging

Operations and Algebraic Thinking

Standard	IXL skills
Write expressions	1. Write numerical expressions: one operation 2NK
Relate repeated addition to multiplication	1. Identify repeated addition in arrays: sums to 25 ER2 2. Relate addition and multiplication for equal groups GGC 3. Relate addition and multiplication P74

Number and Operations in Base Ten

Standard	IXL skills
Round to the nearest ten	1. Round to the nearest ten JDN

Numbers and Operations - Fractions

Standard	IXL skills
Recognize fraction models	1. Match fractions to models: halves, thirds, and fourths Y55 2. Match unit fractions to models CPK 3. Match fractions to models YHL
Represent fractional parts of groups	1. Fractions of a group 8H3

Measurement and Data

Standard	IXL skills
Recognize procedures to calculate elapsed time	1. Elapsed time I UDE
Measure time and length	**Length** 1. Measure using an inch ruler LC2 2. Measure using a centimeter ruler MPX

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	Mixed measurements 3. Choose the appropriate measuring tool FTA

Geometry

Standard	IXL skills
Identify quadrilaterals	1. Identify rectangles 47T 2. Identify rhombuses ZSD
Draw quadrilaterals	1. Draw quadrilaterals 5KS

Modeling

Standard	IXL skills
Represent quantities with models	**Partition shapes** 1. Make halves, thirds, and fourths HGP 2. Make sixths and eighths KTM **Show fractions** 3. Show fractions: fraction bars ZPW 4. Show fractions: area models NLE

Justification and Explanation

Standard	IXL skills
Provide partial explanations	1. Addition up to three digits: fill in the missing digits LYB
Give examples, computations, and steps	1. Identify equal parts FHY 2. Identify equations DW9
State properties, definitions, or relationships	1. Properties of addition NY2 2. Properties of multiplication MPE
Draw conclusions from single statements	

Integrating Essential Skills

Standard	IXL skills
Add and subtract within 20	1. Addition and subtraction word problems - up to 20 A5E
Skip count	1. Skip-counting LQM
Add and subtract within 100	1. Add numbers - sums up to 100 TCS 2. Subtract numbers - up to two digits 9N9 3. Add and subtract numbers up to 100 JGG
Identify place value	1. Place value names up to thousands GEV

Close

Operations and Algebraic Thinking

Standard	IXL skills
Represent single-step word problems within 100	**Solve word problems** 1. Multiplication word problems 9TA 2. Division word problems ECS **Write equations** 3. Write variable equations to represent word problems: multiplication and division only ZNN
Divide within 100 using "fair-sharing" with no remainder	1. Divide by counting equal groups UYK 2. Write division sentences for groups FSX 3. Write division sentences for arrays 8RW
Translate word problems into expressions and equations	**Solve word problems** 1. Addition, subtraction, multiplication, and division word problems X8W **Write equations** 2. Comparison word problems: addition or multiplication? A52 3. Write variable equations to represent word problems U6P
Relate repeated subtraction and division	1. Divide using repeated subtraction V5C

Number and Operations in Base Ten

Standard	IXL skills
Round to the nearest hundred	1. Round to the nearest hundred BWN
Determine relative locations on number lines	1. Round using a number line - nearest ten or hundred 6ST

Numbers and Operations - Fractions

Standard	IXL skills
Represent ratios	1. Unit fractions: modeling word problems UV8 2. Fractions of a whole: modeling word problems 9PU
Plot fractions on number lines	**Identify fractions** 1. Identify unit fractions on number lines JVC 2. Identify fractions on number lines AWH **Graph fractions** 3. Graph unit fractions on number lines CBW 4. Graph fractions on number lines 7QM
Represent fractional parts of groups	1. Fractions of a group 8H3

Measurement and Data

Standard	IXL skills
Use appropriate units	**Customary units** 1. Which customary unit of length is appropriate? WRB 2. Which customary unit of weight is appropriate? GK8 3. Which customary unit of volume is appropriate? J9R **Metric units** 4. Which metric unit of length is appropriate? YWR 5. Which metric unit of weight is appropriate? PTF 6. Which metric unit of volume is appropriate? LYS
Find area or perimeter	1. Perimeter of rectangles ZJT 2. Tile a rectangle and find the area EKK
Measure data and display findings in graphs	**Measure data** 1. Measure using an inch ruler LC2 2. Measure using a centimeter ruler MPX

	Create graphs 3. Create bar graphs RPF 4. Create pictographs AVG

Geometry

Standard	IXL skills
Find fractions of rectangles	1. Understand fractions: fraction bars 6JL 2. Understand fractions: area models RTW
Use operational definitions	1. Count and compare sides and vertices GWA

Modeling

Standard	IXL skills
Represent real-world problems	1. Comparison word problems: addition or multiplication? A52 2. Write variable equations to represent word problems U6P

Justification and Explanation

Standard	IXL skills
Explain patterns	1. Addition patterns over increasing place values 5RG 2. Subtraction patterns over increasing place values VKD 3. Multiplication input/output tables: find the rule D5U 4. Division input/output tables: find the rule 4Z8
Use rules to generate sequences	1. Use a rule to complete an addition pattern 7B6
Create visual representations	**Multiplication** 1. Make arrays to model multiplication PPR **Area** 2. Create rectangles with a given area V73

	Fractions 3. Make halves, thirds, fourths, sixths, and eighths JHE 4. Show fractions: fraction bars ZPW 5. Show fractions: area models NLE
Explain procedures	
Use patterns to support arguments	1. Skip-counting puzzles 78C

Integrating Essential Skills

Standard	IXL skills
Solve measurement and geometry problems from prior grades	**Length** 1. Customary units of length: word problems GSF 2. Metric units of length: word problems KJ5 **Area** 3. Tile a rectangle with squares 2VD 4. Area 73H
Use place value models	1. Place value models up to hundreds EQU
Skip count	1. Count by tens and hundreds Z8G 2. Count forward and backward by fives, tens, and hundreds R5A
Measure and estimate length	1. Measure using an inch ruler LC2 2. Measure using a centimeter ruler MPX
Relate addition, subtraction, and length	
Recognize and describe quadrilaterals	**Identify quadrilaterals** 1. Identify parallelograms V6L 2. Identify trapezoids 67A 3. Identify rectangles 47T 4. Identify rhombuses ZSD **Classify quadrilaterals** 5. Classify quadrilaterals CNJ

Ready

Operations and Algebraic Thinking

Standard	IXL skills
Solve multi-step multiplication and division problems	1. Two-step multiplication and division word problems 8FP
Multiply and divide within 100	**Multiplication** 1. Multiplication tables up to 10 PNV 2. Multiplication facts up to 10: select the missing factors WZA **Division** 3. Division facts up to 10 M8T 4. Division facts up to 10: select the missing numbers FPA
Make sense of real-world problems	**One-step problems** 1. Addition and subtraction word problems XSH 2. Multiplication and division word problems 85K **Two-step problems** 3. Two-step addition and subtraction word problems CBA 4. Two-step multiplication and division word problems 8FP 5. Two-step mixed operation word problems SRL

Number and Operations in Base Ten

Standard	IXL skills
Add and subtract multiples of 10 or 100	1. Add multiples of 10 or 100 6TG 2. Subtract multiples of 10 or 100 PF2
Multiply by multiples of 10	1. Multiply by a multiple of ten MS6

Numbers and Operations - Fractions

Standard	IXL skills
Write fractions to represent real-world problems	**Unit fractions** 1. Unit fractions: word problems HM7 **Fractions of a whole** 2. Fractions of a whole: word problems BV7 **Fractions of a group** 3. Fractions of a group: word problems Z65
Plot fractions on number lines	1. Find equivalent fractions using number lines JL8 2. Graph equivalent fractions on number lines WPQ
Consider the meaning of fractions	1. Unit fractions: modeling word problems UV8 2. Fractions of a whole: modeling word problems 9PU

Measurement and Data

Standard	IXL skills
Solve linear measurement problems	1. Perimeter of polygons LLY 2. Perimeter: find the missing side length T2V 3. Perimeter: word problems CLD
Understand area and square units	1. Tile a rectangle and find the area EKK 2. Multiply to find the area of a rectangle made of unit squares S7G 3. Find the area of rectangles and squares 8KJ
Solve time problems	1. Elapsed time: find the end time U7B 2. Find the elapsed time SCQ 3. Time patterns 7VM
Measure using appropriate units and tools and organize findings in tables or line plots	**Appropriate units and tools** 1. Which customary unit is appropriate? 54W 2. Which metric unit is appropriate? FQ8 3. Choose the appropriate measuring tool FTA

	Line plots 4. Create line plots with fractions YUR

Geometry

Standard	IXL skills
Partition shapes to represent fractions	1. Make halves, thirds, fourths, sixths, and eighths JHE
Describe attributes of shapes	**Two-dimensional shapes** 1. Open and closed shapes 9PS 2. Parallel sides in quadrilaterals 6E9 **Three-dimensional shapes** 3. Count vertices, edges, and faces ZBU 4. Identify faces of three-dimensional shapes S8P
Write fractions to represent models	1. Match unit fractions to models CPK 2. Match fractions to models YHL

Modeling

Standard	IXL skills
Write expressions and equations to solve real-world problems	1. Write variable equations to represent word problems U6P

Justification and Explanation

Standard	IXL skills
Solve grade-level problems and provide explanations	1. Addition, subtraction, multiplication, and division word problems X8W 2. Two-step mixed operation word problems SRL
Support claims and draw conclusions	1. Two-step word problems: identify reasonable answers V5A
Use conditional statements, visual representations, computations, and procedures	1. Use bar graphs to solve problems BCJ 2. Count shapes in a Venn diagram V86 3. Compare area and perimeter of two figures PMF

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Justify conclusions by verifying claims, explaining errors in reasoning, and providing counterexamples	**Multiplication** 1. Multiplication facts up to 10: true or false? 3K8 2. Multiplication sentences up to 10: true or false? MTU **Division** 3. Division facts up to 10: true or false? MPV 4. Division sentences up to 10: true or false? GMU **Mixed operations** 5. Multiplication and division facts up to 10: true or false? WQT

Integrating Essential Skills

Standard	IXL skills
Solve measurement and geometry problems from prior grades	1. Customary units of length: word problems GSF 2. Metric units of length: word problems KJ5
Understand place value	1. Place value models up to hundreds EQU 2. Place value - ones, tens, and hundreds BZC
Skip count	1. Count by tens and hundreds Z8G 2. Count forward and backward by fives, tens, and hundreds R5A

Exceeding

Operations and Algebraic Thinking

Standard	IXL skills
Use expressions and equations to represent real-world problems	1. Write variable equations to represent word problems: multiplication and division only ZNN 2. Write variable equations to represent word problems U6P
Explain properties of operations	1. Properties of addition NY2 2. Properties of multiplication MPE
Relate multiplication and division	**Find the missing number** 1. Multiplication facts up to 10: find the missing factor FZA 2. Multiplication word problems: find the missing factor F6C 3. Division facts up to 10: find the missing number HE7 **Relate multiplication and division** 4. Relate multiplication and division 67L
Determine relevant information in a real-world problem, and relate expressions and equations to the problem	**One-step problems** 1. Add and subtract data from tables HX2 2. Comparison word problems: addition or multiplication? A52 3. Addition, subtraction, multiplication, and division word problems X8W **Two-step problems** 4. Two-step mixed operation word problems SRL

Number and Operations in Base Ten

Standard	IXL skills
Add and subtract within 1,000	1. Add two numbers up to three digits E83 2. Subtract numbers up to three digits EHT

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Numbers and Operations - Fractions

Standard	IXL skills
Solve multi-step problems with fractional solutions	
Compare fractions	**Compare fractions using models** 1. Compare fractions using models MJ2 2. Compare fractions using number lines 38T 3. Graph and compare fractions with like denominators on number lines 63U 4. Graph and compare fractions with like numerators on number lines ZPD 5. Graph and compare fractions on number lines 6H5 **Compare fractions** 6. Compare fractions 78D 7. Compare fractions in recipes 9BK
Compose and decompose fractions using unit fractions	1. Decompose fractions into unit fractions 99A

Measurement and Data

Standard	IXL skills
Solve time problems	1. Elapsed time word problems: find the elapsed time V9D 2. Elapsed time word problems: find the end time 5VC
Choose appropriate units and display measurements on line plots	**Appropriate units** 1. Which customary unit is appropriate? 54W 2. Which metric unit is appropriate? FQ8 **Line plots** 3. Create line plots with fractions YUR
Use error analysis	

Geometry

Standard	IXL skills
Decompose composite shapes	1. Find the areas of complex figures by dividing them into rectangles DVB
Partition symmetric shapes into equal parts	1. Symmetry STQ

Modeling

Standard	IXL skills
Use expressions, equations, and graphs to represent real-world problems	**Expressions** 1. Write variable expressions: word problems KPS **Graphs** 2. Use bar graphs to solve problems BCJ 3. Create bar graphs RPF 4. Create pictographs AVG

Justification and Explanation

Standard	IXL skills
Support claims with evidence and clear solution paths	1. Complete the equation using properties of addition CGS 2. Add using properties KYA 3. Solve using properties of multiplication YPF
Thoroughly justify conclusions by explaining errors in reasoning and providing counterexamples	**Mixed operations** 1. Multiplication and division sentences up to 12: true or false? A8Q **Patterns** 2. What is true about the given pattern? C9H 3. What is true about the pattern made by the rule? 35J

Integrating Essential Skills

Standard	IXL skills
Solve multi-step problems, including those involving relationships between geometric figures	**Addition** 1. Add three numbers up to three digits each: word problems NPU 2. Add three numbers up to four digits each: word problems 8A4 **Addition and subtraction** 3. Two-step addition and subtraction word problems CBA 4. Find two numbers based on sum and difference 9Z7 **Relationships between geometric figures** 5. Identify faces of three-dimensional shapes S8P
Solve place value word problems	1. Place value word problems 5TF
Describe patterns and relate skip-counting to multiplication and division	1. Skip-counting puzzles 78C 2. Number sequences 7Y5