# IXL Skill Plan for the TABE®

## Math Level E

Use IXL's interactive skill plan to get up-to-date skill alignments, assign skills to your students, and track progress.

IXL

# Number and Operations - Base Ten

| Standard | IXL skills |
|---|---|
| Identify the values of digits of two- and three-digit numbers | 1. Place value - up to hundreds  BDF |
| Create and use multiple representations of multi-digit numbers based on place value (e.g., base ten blocks, place value charts, expanded form) | 1. Convert between place values - ones and hundreds  9T6<br>2. Place value models - up to hundreds  PBX<br>3. Convert to/from a number - up to hundreds  HUX |
| Round numbers to tens and hundreds places | 1. Rounding - nearest ten or hundred only  Q65 |
| Round numbers to nearest hundreds and thousands place | |
| Multiply single-digit whole numbers by 10 | 1. Multiply by 10  6YD |
| Skip count by 5s, 10s, and 100s | 1. Skip-counting by fives and tens  FVF<br>2. Count forward and backward by fives and tens  8JK<br>3. Count forward and backward by fives, tens, and hundreds  R5A |
| Skip count by 5s, 10s, 100s, and by multiples of 10s and 100s | 1. Count forward and backward by fives, tens, and hundreds  R5A |
| Explore patterns in multiplying numbers by 10 | 1. Multiply by a multiple of ten  MS6 |
| Compare values of digits in multi-digit numbers | 1. Comparing numbers up to 1,000  XF9 |
| Create and use multiple representations of addition and subtraction of two- and three-digit numbers based on place value (e.g., base ten blocks, area models) and connect these representations to the standard algorithms (especially where regrouping is required) | **Add multiples of 10 and 100**<br>1. Add multiples of 100  85Z<br>2. Add multiples of 10 or 100  RCJ<br><br>**Add two-digit numbers**<br>3. Add two-digit numbers - sums to 200  GZY<br>4. Add a two-digit and a one-digit number - without regrouping  EZ7 |

5. Add a two-digit and a one-digit number - with regrouping  8BT

6. Add two-digit numbers without regrouping - sums to 100  TX5

7. Add two-digit numbers with regrouping - sums to 100  GLX

## Add three-digit numbers

8. Addition with three-digit numbers  ETW

9. Use models to add three-digit numbers - without regrouping  Q7V

10. Use models to add three-digit numbers - with regrouping  KUG

## Subtract multiples of 10 and 100

11. Subtract multiples of 100  2E2

12. Subtract multiples of 10 or 100  VVM

## Subtract two-digit numbers

13. Subtract two two-digit numbers - without regrouping  R8C

14. Subtract two two-digit numbers - with regrouping  TWE

## Subtract three-digit numbers

15. Subtract three-digit numbers  ZVR

## Regroup tens and ones

16. Regroup tens and ones - ways to make a number  JKT

17. Regroup tens and ones  5LV

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# Number and Operations - Fractions

| Standard | IXL skills |
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| Identify some representations of fractions | 1. Understand fractions: fraction bars  6JL<br>2. Understand fractions: area models  RTW |
| Use unit fractions to compose simple, non-unit fractions | 1. Match fractions to models: halves, thirds, and fourths  Y55<br>2. Match unit fractions to models  CPK<br>3. Match fractions to models  YHL |
| Use unit fractions to compose and decompose non-unit fractions | **Compose fractions**<br>1. Show fractions: fraction bars  ZPW<br>2. Show fractions: area models  NLE<br><br>**Decompose fractions**<br>3. Decompose fractions into unit fractions  XHG<br>4. Decompose fractions  N2Z |
| Use unit fractions and non-unit fractions to compose and decompose non-unit fractions in different ways | 1. Decompose fractions multiple ways  UEW |
| Create and use multiple representations of fractions (e.g., number lines, area models, set models) | **Unit fractions**<br>1. Unit fractions: modeling word problems  UV8<br>2. Unit fractions: word problems  HM7<br><br>**Fractions of a whole**<br>3. Fractions of a whole: modeling word problems  9PU<br>4. Fractions of a whole: word problems  BV7<br><br>**Fractions on a number line**<br>5. Fractions of number lines  J8M<br>6. Identify fractions on number lines  AWH<br>7. Graph fractions on number lines  7QM |

Use multiple representations to identify or create an equivalent fraction to a given fraction or whole number

**Find equivalent fractions**

1. Find equivalent fractions using area models: two models  ZJ2
2. Find equivalent fractions using area models: one model  6DY
3. Identify equivalent fractions  7DA
4. Find equivalent fractions  WMX
5. Graph equivalent fractions on number lines  WQL

**Find fractions equivalent to whole numbers**

6. Select fractions equivalent to whole numbers using area models  GKZ
7. Find fractions equivalent to whole numbers  KCE
8. Graph fractions equivalent to 1 on number lines  7BL

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Identify benchmark fractions (e.g., ½) and reason about their sizes

1. Benchmark fractions  EEU

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Compare fractions to benchmark fractions (e.g., ½) and reason about their sizes

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Compare fractions with the same numerators or the same denominators by reasoning about their sizes (using benchmark fractions)

**Compare fractions**

1. Compare fractions in recipes  9BK
2. Compare fractions using models  MJ2
3. Compare fractions using number lines  38T
4. Compare fractions  78D

**Graph and compare fractions**

5. Graph and compare fractions with like denominators on number lines  63U
6. Graph and compare fractions with like numerators on number lines  ZPD
7. Graph and compare fractions on number lines  6H5
8. Graph smaller or larger fractions on a number line  2PH

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Visit IXL's interactive skill plan at www.ixl.com/math/skill-plans/tabe-math-level-e

# Operations and Algebraic Thinking

| Standard | IXL skills |
|---|---|
| Identify visual representations of multiplication and division of whole numbers (e.g., arrays, equal groups, area models) | **Multiplication**<br>1. Identify multiplication expressions for equal groups  9AE<br>2. Write multiplication sentences for equal groups  V98<br>3. Identify multiplication expressions for arrays  HZL<br>4. Write multiplication sentences for arrays  5FZ<br><br>**Division**<br>5. Divide by counting equal groups  UYK<br>6. Write division sentences for groups  FSX<br>7. Write division sentences for arrays  8RW |
| Solve multiplication and division problems using math fact strategies | 1. Properties of multiplication  MPE<br>2. Distributive property: find the missing factor  7VP<br>3. Multiply using the distributive property  6W7<br>4. Relate multiplication and division  67L |
| Use equations to connect an unknown product of a multiplication problem to a missing factor in a related division problem | 1. Multiplication facts up to 10: select the missing factors  WZA<br>2. Division facts up to 10: select the missing numbers  FPA |
| Solve real-world problems involving multiplication and division while using visual representations to show the process | **Multiplication and division**<br>1. Multiplication word problems  9TA<br>2. Multiplication word problems: find the missing factor  F6C<br>3. Division word problems  ECS<br>4. Multiplication and division word problems  85K<br>5. Two-step multiplication and division word problems  8FP<br><br>**Mixed operations**<br>6. Addition, subtraction, multiplication, and division word problems  X8W |

7. Two-step mixed operation word problems  SRL

**Variable equations**

8. Solve for the variable  D65

9. Write variable equations to represent word problems: multiplication and division only  ZNN

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|---|---|
| Connect visual representations of real-world problems to expressions and equations that also represent the real-world problems | 1. Write variable equations to represent word problems  U6P |
| Use number patterns with simple addition rules to investigate how they relate to multiplication and division | 1. Relate addition and multiplication for equal groups  GGC<br>2. Relate addition and multiplication  P74 |
| Create and use visual representations of multiplication and division of whole numbers (e.g., arrays, equal groups, area models) | 1. Make arrays to model multiplication  PPR |
| Solve basic multiplication problems using math fact strategies | 1. Solve using properties of multiplication  YPF |
| Identify an addition rule given a pattern and create patterns when given simple addition rules | 1. Addition input/output tables: up to three digits  MUE |

# Geometry

| Standard | IXL skills |
|---|---|
| Extend properties of two-dimensional shapes to three-dimensional shapes | 1. Count vertices, edges, and faces  X72<br>2. Compare vertices, edges, and faces  DPT |
| Identify simple features (number of sides, number of angles, etc.) of given shapes with  pictures<br><br>Identify properties of shapes with three or four sides<br><br>Explore properties of shapes with more than four sides | 1. Count sides and vertices  EAQ |
| Identify features of given shapes with words and pictures | **Two-dimensional shapes**<br>1. Name the two-dimensional shape  2FK<br>2. Select two-dimensional shapes  DWL<br><br>**Three-dimensional solids**<br>3. Identify faces of three-dimensional shapes  QSR<br>4. Identify shapes traced from solids  MRD |
| Identify shapes whose areas have been partitioned into halves and quarters | 1. Make halves  XME<br>2. Make fourths  QZ9 |
| Describe and analyze features of shapes extending beyond numbers of sides and angles (e.g., relationships between pairs of sides or angles) | 1. Parallel sides in quadrilaterals  6E9 |
| Identify features of given shapes with words and pictures together and separately | 1. Identify rectangles  47T |
| Identify both properties of given shapes and shapes with given properties | 1. Identify parallelograms  V6L<br>2. Identify trapezoids  67A<br>3. Identify rectangles  47T<br>4. Identify rhombuses  ZSD |

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Analyze polygons with similar properties and some of the same features

1. Classify quadrilaterals  CNJ

Identify and create non-examples of shapes

Create and use visual representations to partition areas of shapes

1. Identify equal parts  FHY

2. Make halves, thirds, and fourths  HGP

3. Make sixths and eighths  KTM

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

# Measurement and Data

| Standard | IXL skills |
|---|---|
| Measure objects in different units (with fractional lengths) and compare these measurements | 1. Measure using an inch ruler  LC2 |
| Estimate the length of an object before measuring the object | 1. Which customary unit of length is appropriate: inches or feet?  5XG<br>2. Which metric unit of length is appropriate?  SKH |
| Find elapsed time when given a start and end time | 1. Elapsed time word problems: find the elapsed time  V9D |
| Solve problems involving addition and subtraction of time intervals, especially working backward from a given end time | 1. Elapsed time: find the end time  U7B |
| Extend arithmetic operations to real-world problems involving volumes and masses of objects | 1. Measurement word problems  VPW |
| Find areas and perimeters of squares and rectangles | 1. Perimeter of rectangles  ZJT<br>2. Relationship between area and perimeter: find the perimeter  ZWF<br>3. Relationship between area and perimeter: find the area  KNR |
| Identify and create squares and rectangles with given areas or perimeters | 1. Create rectangles with a given area  V73 |
| Identify and create squares and rectangles with the same areas and different perimeters | |
| Identify bar graphs that match a given data set and explain simple characteristics (e.g., category totals) | 1. Which bar graph is correct?  BMG |
| Create bar graphs from given data sets and explain simple characteristics (e.g., category totals) | 1. Create bar graphs  6KD<br>2. Interpret bar graphs II  8CH |
| Use bar graphs with different scales to solve problems involving multiple categories | 1. Use bar graphs to solve problems  BCJ |