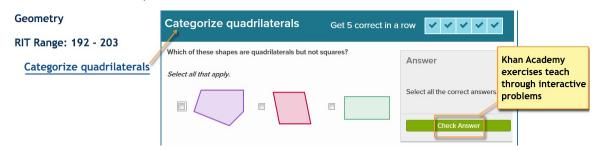


## MAP to Khan Academy:

## Khan Academy Practice Exercises Correlated to RIT for Common Core Math MAP for Primary Grades

#### **About this Document**

This document correlates MAP® sub-goals and RIT ranges to Khan Academy® exercises. The Khan exercises are interactive problems for students with instant feedback:



Having these exercises correlated to RIT ranges means you can use them in conjunction with your flexible student groupings that are also informed by RIT score results. The exercises are also useful for targeting learning in each student's zone of proximal development (Vygotsky).

The correlation between MAP RIT scores and the Khan Academy exercises was determined by using our 2011 norms data to approximate grade levels, which were then matched to the corresponding Common Core State Standards (CCSS). Teachers in states that have not adopted the CCSS may still find these resources valuable by relating goals or sub-goals that are similar to CCSS goals and sub-goals.

NWEA plans to work with Khan Academy to update these links twice a year as new exercises are developed.

#### **How to Use**

- 1. Use MAP reports to find the RIT scores for a given sub-goal.
- 2. In this document, locate that same goal, approximate RIT range, and sub-goals.
- 3. To choose appropriate Khan Academy exercises:
  - a. Consider both the name of the exercise and the CCSS standard.
  - Click the link and try the exercise yourself.
     Note: When you're in Khan Academy, the links to videos and other resources add context to the actual exercise but are not necessarily correlated to MAP.
- 4. In the browser window where the exercise opened, note or copy the Web address URL.
- 5. Optionally deliver exercises to students. For example:
  - Paste the URL into an online document for students to access.
  - Present the exercise in the classroom.
  - Use for parent-teacher conference discussion.

#### Limitations

The instructional suggestions presented in this document are intended to provide supplementary resources based on available Khan Academy exercises and are not intended to replace other options. MAP/MPG data should be used as one of many data points for instructional decisions rather than as a placement guide.

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# Common Core MAP Mathematics Khan Academy Practice Exercises Correlation Common Core Mathematics MPG

<u>Geometry</u>		
Reason with Shapes and Their Attributes	Р	4
Measurement and Data		
Represent and Interpret Data	Р	4
Solve Problems Involving Measurement	Р	5
Number and Operations		
Number and Operations: Base Ten and Fractions	Р	6
Understand Place Value, Counting, and Cardinality	Р	9
Operations and Algebraic Thinking		
<u>Properties of Operations</u>	Р	10
Represent and Solve Problems	Р	10

## Geometry

Reason with Shapes and Their Attributes	Standards Alignment
RIT Range: < 160	
Comparing shapes	K.G.B.4
Composing shapes	K.G.B.6
Naming shapes	K.G.A.1
Naming shapes 2	K.G.A.2
RIT Range: 161-178	
Naming shapes 3	1.G.A.1
Halves and fourths	1.G.A.3
DIT Day 22, 470 404	
RIT Range: 179-191	2.G.A.3
Equal parts of circles and rectangles	2.G.A.2
Filling rectangles with same-sized squares	2.G.A.1
Naming shapes 4	2.0.7.1
RIT Range: 192-202	
Categorize quadrilaterals	3.G.A.1
<u>Identifying unit fractions</u>	3.G.A.2
That's not fair!	3.G.A.2
Measurement and Data	
Represent and Interpret Data	Standards Alignment
RIT Range: < 160	
Sort by count or category	K.MD.B.3
<u>sort of count of category</u>	
RIT Range: 161-178	
Solving problems with bar graphs 1	1.MD.C.4
RIT Range: 179-191	
Making line plots, bar graphs, and picture graphs	2.MD.D.9
Solving problems with bar graphs 2	2.MD.D.10
Solving problems with line plots 1	2.MD.D.9

2.MD.C.8

2.MD.A.3

2.MD.B.5

2.MD.A.1

2.MD.A.2

**Standards Alignment** 

#### **Measurement and Data**

**Represent and Interpret Data** 

Counting money (U.S.)

Length word problems

Measuring lengths with different units

Measuring lengths 2

**Estimating lengths** 

	•	
RIT R	ange: 179-191	
	Solving problems with picture graphs 1	2.MD.D.10
RIT R	ange: 192-202	
	<u>Creating bar charts</u>	3.MD.B.3
	Marking data on line plots	3.MD.B.4
		3.MD.B.3
	Creating picture and bar graphs 2	3.MD.B.3
	Reading bar charts 1	
	Reading bar charts 2	3.MD.B.3
	Reading pictographs 1	3.MD.B.3
	Reading pictographs 2	3.MD.B.3
	Solving problems with bar graphs 3	3.MD.B.3
	Solving problems with picture graphs 2	3.MD.B.3
Me	asurement and Data	
	asurement and Data e Problems Involving Measurement	Standards Alignment
Solv		Standards Alignment
Solv	e Problems Involving Measurement	Standards Alignment  K.MD.A.2
Solve RIT R	e Problems Involving Measurement  lange: < 160  Comparing size	
Solve RIT R	e Problems Involving Measurement lange: < 160 Comparing size lange: 161-178	
Solve RIT R	e Problems Involving Measurement  lange: < 160  Comparing size	K.MD.A.2
Solve RIT R	e Problems Involving Measurement  lange: < 160  Comparing size  ange: 161-178  Measuring lengths 1  Order by length	K.MD.A.2
Solve RIT R	e Problems Involving Measurement  lange: < 160  Comparing size  ange: 161-178  Measuring lengths 1  Order by length  ange: 179-191	1.MD.A.2 1.MD.A.1
Solve RIT R	e Problems Involving Measurement  lange: < 160  Comparing size  ange: 161-178  Measuring lengths 1  Order by length  ange: 179-191  Adding and subtracting on the number line word problems	1.MD.A.2 1.MD.A.1 2.MD.B.6
Solve RIT R	e Problems Involving Measurement  lange: < 160  Comparing size  ange: 161-178  Measuring lengths 1  Order by length  ange: 179-191	1.MD.A.2 1.MD.A.1

#### **Measurement and Data**

Solve Problems Involving Measurement	Standards Alignment
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RIT Range: 179-191

Telling time without labels 2.MD.C.7

Telling time with a labeled clock 2.MD.C.7

RIT Range: 192-202

Area and the distributive property 3.MD.C.7 | 3.MD.C.7c

Comparing area and perimeter 3.MD.D.8

Comparing areas by multiplying 3.MD.C.7 | 3.MD.C.7b

Decompose shapes to find area 3.MD.C.7 | 3.MD.C.7d

Finding area by multiplying 3.MD.C.7 | 3.MD.C.7a

Arithmetic word problems with mass 3.MD.A.2

Measuring area with unit squares 3.MD.C.6

Perimeter 1 3.MD.D.8

Finding perimeter 3.MD.D.8

Perimeter 2 3.MD.D.8

Telling time word problems 3.MD.A.1

Telling time word problems with the number line 3.MD.A.1

Understanding area 3.MD.C.5 | 3.MD.C.5a | 3.MD.C.5b

Arithmetic word problems with volume 3.MD.A.2

### **Number and Operations**

Number and Operations: Base Ten and Fractions Standards Alignment

RIT Range: < 160

Addition within 5 K.OA.A.5

Making five K.OA.A.4

Making ten K.OA.A.4

Making ten 2 K.OA.A.4

Subtraction within 5 K.OA.A.5

RIT Range: 161 - 178

Addition within 20 1.0A.C.6

## **Number and Operations**

Number and Operations: Base Ten and Fractions	Standards Alignment
RIT Range: 161 - 178	
Addition and subtraction within 10	1.OA.D.8
RIT Range: 161-178	
Adding 1s or 10s (no regrouping)	1.NBT.C.4
Adding 1 or 10	1.NBT.C.4
Adding two-digit numbers (no regrouping)	1.NBT.C.4
Breaking apart two-digit addition problems	1.NBT.C.4
Regrouping: two-digit number plus one-digit number	1.NBT.C.4
RIT Range: 179-191	
Adding and subtracting within 1000 using a number line	2.NBT.B.7
Addition within 100	2.NBT.B.5
Adding and subtracting using a number line	2.NBT.B.7
Adding 10s and 100s (no regrouping)	2.NBT.B.7
Adding two- and three-digit numbers (no regrouping)	2.NBT.B.7
Breaking apart three-digit addition problems	2.NBT.B.7
Adding two-digit numbers by making tens	2.NBT.B.5
Adding two-digit numbers by making tens 2	2.NBT.B.5
Regrouping: two-digit number minus one-digit number	2.NBT.A.4
Select strategies for adding within 100	2.NBT.B.7
Subtracting 1s or 10s (no regrouping)	2.NBT.B.5
Subtraction within 20	2.NBT.B.5
Subtraction within 100	2.NBT.B.5
Subtracting 10s and 100s (no regrouping)	2.NBT.B.7
Subtracting two- and three-digit numbers (no regrouping)	2.NBT.B.7
Subtracting 1 or 10	2.NBT.B.5
Subtracting two-digit numbers (no regrouping)	2.NBT.B.5
DIT Pangar 102 202	
RIT Range: 192 - 203	3.OA.A.2
Meaning of division	3.On.n.2

## **Number and Operations**

Number and Operations: Base Ten and Fractions	Standards Alignment
RIT Range: 192 - 203	
Meaning of multiplication	3.0A.A.1
RIT Range: 192-202	
Addition within 1000	3.NBT.A.2
Comparing fractions with the same numerator or denominator	3.NF.A.3   3.NF.A.3d
Comparing fractions with the same denominator	3.NF.A.3   3.NF.A.3d
Comparing fractions with the same numerator	3.NF.A.3   3.NF.A.3d
Visually comparing fractions 1	3.NF.A.3   3.NF.A.3d
	3.NF.A.1
Identifying unit fractions	3.NF.A.3   3.NF.A.3a   3.NF.A.3b
Equivalent fractions on the number line	3.NF.A.3   3.NF.A.3a   3.NF.A.3b
Equivalent fraction models	
Finding 1 on the number line	3.NF.A.2   3.NF.A.2a   3.NF.A.2b   3.NF.A.3c
<u>Fractions on the number line</u>	3.NF.A.2
Unit fractions on the number line	3.NF.A.2   3.NF.A.2a   3.NF.A.2b
Recognizing fractions 2	3.NF.A.1
Addition using groups of 10 and 100	3.NBT.A.2
Multiply by tens	3.NBT.A.3
Multiply by tens word problems	3.NBT.A.3
Comparing fractions of different wholes	3.NF.A.3d
<u>Identifying numerators and denominators</u>	3.NF.A.1
Recognizing fractions 1	3.NF.A.1
Rounding to the nearest ten or hundred	3.NBT.A.1
Subtraction within 1000	3.NBT.A.2
That's not fair!	3.NF.A.1
Writing fractions as whole numbers	3.NF.A.3c

## **Number and Operations**

Understand Place Value, Counting, and Cardinality	Standards Alignment
RIT Range: < 160	
Comparing numbers of objects	K.CC.C.6
Less and greater	K.CC.C.7
Count from any number	K.CC.A.2
Counting in scenes	K.CC.B.4
Counting in the right order	K.CC.B.4a
Counting with small numbers	K.CC.B.5
Count to 100	K.CC.A.1
How many objects 1	K.CC.B.5
How many objects 2	K.CC.B.5
One more, one less	K.CC.B.4c
<u>Teen numbers</u>	K.NBT.A.1
RIT Range: 161 - 178	
Numbers to 120	1.NBT.A.1
RIT Range: 161-178	
Comparing two-digit numbers	1.NBT.B.3
Groups of ten objects	1.NBT.B.2   1.NBT.B.2c
Two-digit place value challenge	1.NBT.B.2
RIT Range: 179-191	
Comparing three-digit numbers	2.NBT.A.4
Counting money (U.S.)	2.NBT.A.2
Hundreds, tens, and ones	2.NBT.A.1   2.NBT.A.1a   2.NBT.A.1b
Skip-counting by 100s	2.NBT.A.2
Skip-counting by 10s	2.NBT.A.2
Skip-counting by 5s	2.NBT.A.2
Three-digit place value challenge	2.NBT.A.3

## **Operations and Algebraic Thinking**

Properties of Operations	Standards Alignment	
RIT Range: 161-178		
Addition within 20	1.OA.C.6	
Addition and subtraction within 10	1.OA.D.8	
The equals sign	1.OA.D.7	
Relate addition and subtraction	1.OA.B.4	
RIT Range: 179-191		
Repeated addition	2.OA.C.4	
RIT Range: 192 - 203		
Meaning of division	3.OA.A.2	
Multiplication using place value understanding	3.OA.B.5	
RIT Range: 192-202		
Whole numbers on the number line	3.OA.C.7	
<u>Properties of multiplication</u>	3.OA.B.5	
Relate division to multiplication	3.OA.B.6	
Relate division to multiplication word problems	3.OA.B.6	
Operations and Algebraic Thinking		
Represent and Solve Problems	Standards Alignment	

Represent and Solve Problems	Standards Alignmen
RIT Range: < 160	
Addition within five	K.OA.A.5
Addition word problems within 10	K.OA.A.2
Making five	K.OA.A.4
Making 10 (using grids)	K.OA.A.4
Making 10	K.OA.A.4
Making small numbers in different ways	K.OA.A.3
<u>Put together</u>	K.OA.A.1
Subtraction within five	K.OA.A.5
Subtraction word problems within 10	K.OA.A.2

## **Operations and Algebraic Thinking**

Represent and Solve Problems	Standards Alignment	
RIT Range: < 160		
Take apart	K.OA.A.1	
RIT Range: 161-178		
Adding three numbers	1.OA.A.2	
Addition and subtraction word problems 1	1.OA.A.1	
Addition and subtraction word problems 2	1.OA.A.1	
Word problems with "more" and "fewer" 1	1.OA.A.1	
Word problems with "more" and "fewer" 2	1.OA.A.1	
No. a problems with more and rewer <u>re</u>		
RIT Range: 179 - 191		
Repeated addition	2.OA.C.4	
RIT Range: 179-191		
Addition and subtraction within 100 word problems 1	2.OA.A.1	
	2.OA.A.1	
Addition and subtraction within 100 word problems 2  Word problems within 100 with "more" and "fower" 1	2.OA.A.1	
Word problems within 100 with "more" and "fewer" 1  Word problems within 100 with "more" and "fewer" 2	2.OA.A.1	
	2.OA.A.1	
Comparing lengths  Find the missing number (addition and subtraction within 100)	2.OA.A.1	
Find the missing number (addition and subtraction within 100)	2.OA.A.1	
Length word problems  Calving graph and with gisture graphs 1	2.OA.A.1	
Solving problems with picture graphs 1	2.07.7.1	
RIT Range: 192-202		
Basic division	3.OA.A.4	
1-digit division	3.OA.A.4	
Meaning of division	3.OA.A.2	
Meaning of multiplication	3.OA.A.1	
Multiplying 1-digit numbers	3.OA.A.4	
Math patterns 1	3.OA.D.9	
Patterns in multiplication tables	3.OA.D.9	

3.OA.D.8

## **Operations and Algebraic Thinking**

Represent and Solve Problems Standards Alignment

RIT Range: 192-202

Solving basic multiplication and division equations 3.0A.A.4

Two-step word problems with addition, subtraction, multiplication, and

division