3rd Grade Math

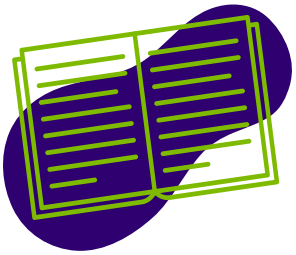
Curriculum Sample

A Grade Ahead will challenge your students and help them achieve their goals!

This school year, our academy's 3rd grade students will be participating in A Grade Ahead's Blended Learning program that integrates both traditional and electronic methods to teach students.

Our students begin the week learning a lesson and answering practice questions with paper and pencil in our monthly lesson booklets. Then they go online to a website to complete three days of online activities to master the topic of the week. Each month also includes three weekly quizzes and one test.

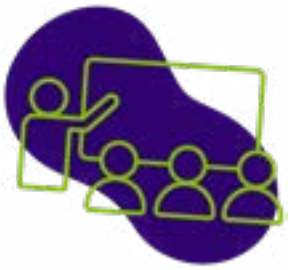
Here's how it works:



Blended Learning Booklet

Each month, students receive a lesson booklet that is split into four weeks of lessons and practice problems.

(At the end of this document, you will find a full sample of one week's lesson and practice problems from A Grade Ahead's 3rd grade math curriculum.)



Weekly Class

Each week, students attend a weekly class, either in person or online, and learn a lesson from a teacher. Together, the class completes practice problems to understand the weekly topic.

Register today! Visit academy.agradeahead.com to find your local academy.

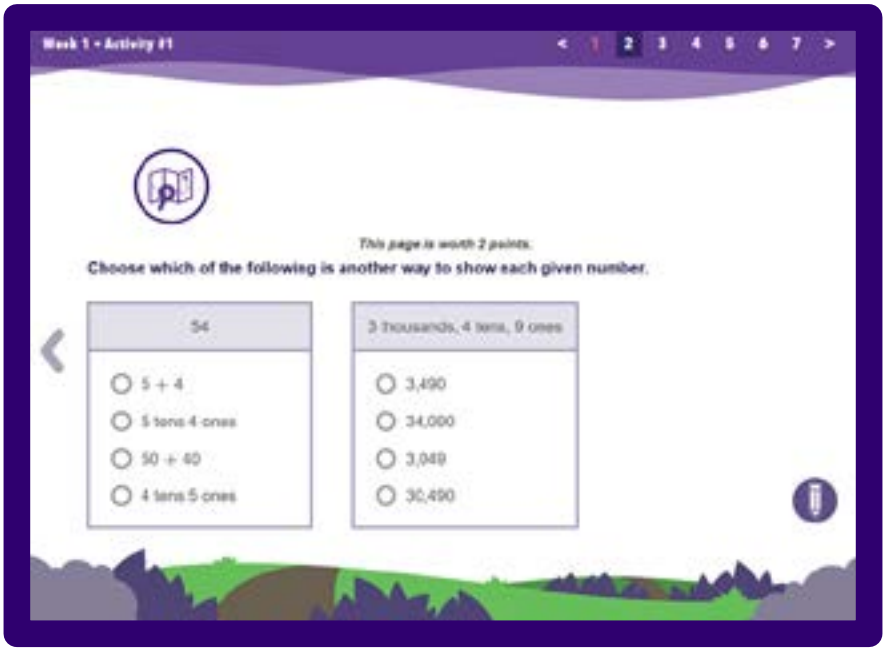
A Grade Ahead Online Activities

After learning the lesson and practicing problems with a traditional approach, students continue learning online through activities at online.agradeahead.com. Every week, students have three days of homework that can include both curriculum facts and word problems.

A Grade Ahead Online offers many benefits to students and parents, including

- **Interactive and colorful questions** with formats like matching, drag and drop, fill in the blank, multiple choice, and more.
- **Automatic grading** that saves times for parents and provides immediate explanations for students. They know whether they got a question right or wrong as they are going through the homework, so they can make adjustments if necessary.
- **A rationale for every online question** that explains the correct answer, so students can learn from their mistakes immediately.
- **Student progress reports** that are easily accessible without parents needing to upload any data.
- **Adaptive learning paths** that provide more challenging questions to students who perform well on the first set of activities.

Here is a peek at a few of our online exercises:



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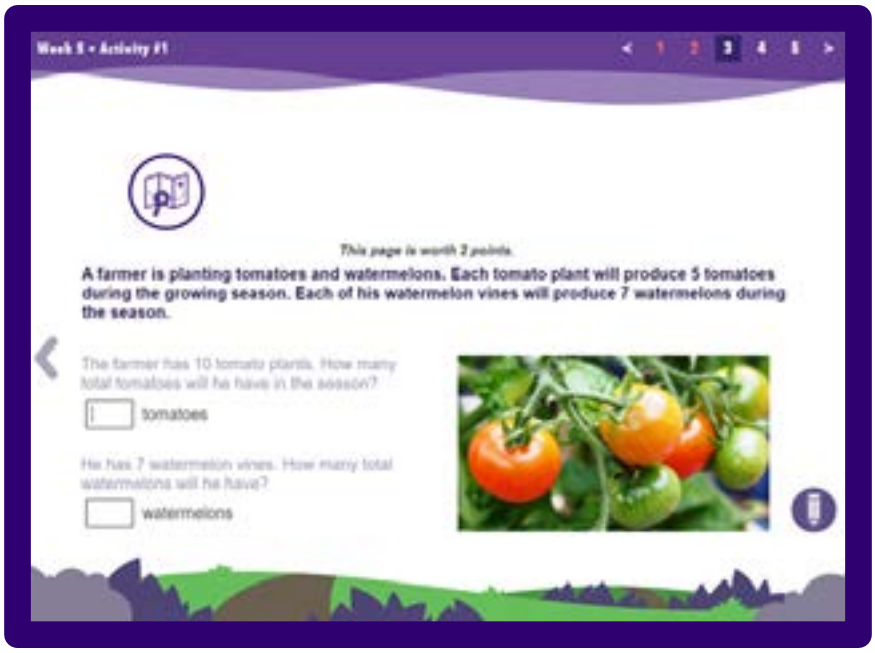


Want to see how A Grade Ahead works first-hand?

We have attached an entire lesson and one day's worth of homework for you to print out and try.

Register today! Visit academy.agradeahead.com to find your local academy.

agradeahead™
blended learning

Lesson Booklet Sample

3rd Grade Math

Print it out and try it!

Agradeahead™

3th Grade • Month 1

MATH

BLENDED LEARNING LESSON BOOKLET

NAME _____

Place Value / Standard, Expanded, & Word Form

Student Goals:

- ✓ I will learn place value, standard form, expanded form, and word form of a 4-digit number.
- ✓ I will be able to write a number in any of the forms mentioned above.

A. Place Value

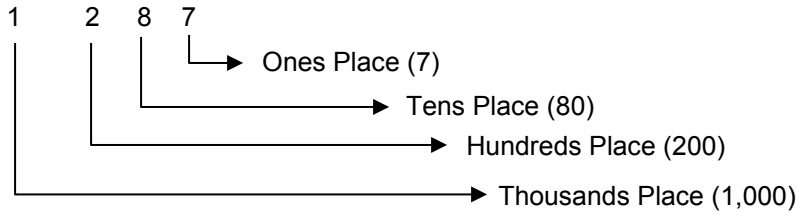
Place value is used to determine the size of a number and compare it with other numbers.

Any number is written using ten different digits: 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9. When you move to the left in a number, each place is equal to ten times the value of the place to the right.

Note: Students should be familiar with the hundreds place value learned in 2nd grade. 3rd graders will learn place value up to the thousands.

Think about the number 1,287.

Starting from the right, the *right-most* digit is the ones place. There are 7 ones in this example (7 ones equal 7).
The next digit to the left of the ones is the tens place. It tells you that there are 8 tens (8 tens equal 80).
The next digit to the left of the tens is the hundreds place. It tells you how many hundreds there are in the number. The number 1,287 has 2 hundreds (2 hundreds equal 200).
The *left-most* digit is the thousands place. It tells you how many thousands there are in the number. In this number, there is 1 thousand (1 thousand equals 1,000).



A chart helps to learn place value. It matches each digit in the number to its value. Below is an example:

Example: Determine the place value of each digit in the number 6,142 using the chart. You can do this by asking yourself the following questions: how many thousands, how many hundreds, how many tens, and how many ones?

Thousands	Hundreds	Tens	Ones
6	1	4	2

The chart can also be used in reverse to find the place value of a digit. For instance, you can look at the char and see that the 2 is in the ones place.

Note: To increase clarity in reading a larger number, all numbers greater than 999 should be written with a comma between the hundreds and thousands place. Example: 5,672 instead of 5672. Starting from the right, you add a comma after every 3 numbers.

Example: What is the number: 3 thousands 5 tens?

3 thousands is 3,000. 5 tens is 50.
So the number is 3,000 + 50 = **3,050**.

Example: What is the place *and* value of **3** in the number 2,386?

2,386 is a four-digit number. The second digit is the 3, and it is in the hundreds place, which tells us that there are 3 hundreds in the number. The place of 3 is the hundreds, and its value is **300**.

Note: Students must understand the difference between the place of a number and its value. In the example above, the place of 6 is the ones, and its value is 6. The place of 8 is the tens, and its value is 80. The place of 3 is the hundreds, and its value is 300. The place of 2 is the thousands, and its value is 2,000.

Example: What is the number: 7 thousands 4 hundreds 5 ones?

Use the place value chart. Put the numbers in the correct column. Put a 0 where there is no digit given.

Thousands	Hundreds	Tens	Ones
7	4	0	5

The number is **7,405**.

Teaching Tip: *Show the students that when they say a 3 or 4-digit number, they use the words "hundred" and "thousand." This gives them a hint as to what the place value of certain digits is. Example: 1,456 is read as one thousand four hundred fifty-six. So, it already tells them that the place value of 1 is the thousands, and 4 is the hundreds.*

Student Practice

Write the place value of the underlined digit? What is its value?

1. 3<u>9</u>5 _____ _____
2. <u>7</u>05 _____ _____
3. 1,00<u>9</u> _____ _____
4. <u>8</u>,019 _____ _____
5. <u>9</u>91 _____ _____
6. <u>9</u>,990 _____ _____
7. 1,0<u>6</u>5 _____ _____
8. 7,<u>1</u>29 _____ _____

B. Standard, Expanded, and Word Forms

There are three basic ways of writing a number: the standard form, the expanded form, and the word form.

The *standard form* of any number is the number written with numbers. For example, the standard form for 35 is **35**.

The *expanded form* of a number is the number broken down by place value. For example, the expanded form of 35 is **30 + 5** (since there is a 3 in the tens place, and is equal to 30, and a 5 in the ones place.)

The *word form* of a number is written using words. For example, 35 in word form is **thirty-five**.

Example: For the number **124**

Standard form: 124
Expanded form: 100 + 20 + 4
Word form: one hundred twenty-four

Example: For the number **1,405**

Standard form: 1,405
Expanded form: 1,000 + 400 + 5
Word form: One thousand four hundred five.

Note: If a place has a value of 0, it is omitted in the expanded form.

Example: Write the following in expanded form: **72**

70 + 2. Expanded form can also be written: 7 tens 2 ones (sometimes the latter is also called the Place value form).

Example: Write the following in standard form: **8 hundreds, 9 ones**

Use the place value chart. Put the numbers in the correct column. Put a 0 where there is no digit given.

Thousands	Hundreds	Tens	Ones
	8	0	9

The number is **809**.

Note: If a place value has no number, don't forget to place a zero (0) in that spot. Otherwise, you may end up with incorrect answers. For instance, if you forgot the zero in the tens place for 8 hundreds and 9 ones, you would end up with 89, instead of 809.

Example: Write the following in standard form: **Four thousand twenty.**

Use the place value chart. Put the numbers in the correct column. Put a 0 where there is no digit given.

Thousands	Hundreds	Tens	Ones
4	0	2	0

The number is **4,020**.

Student Practice

Write the expanded form of the following numbers.

9. 849 = _____

10. 1,658 = _____

11. 548 = _____

12. 3,258 = _____

13. 248 = _____

14. 5,680 = _____

Student Practice

Write the following in standard form.

15. 7,000 + 400 + 6 = _____

16. Three thousand sixty six = _____

17. Two thousand seventy = _____

18. 5000 + 800 + 90 = _____

19. 300 + 20 + 5 = _____

20. Nine thousand and ninety = _____

Student Practice

Write the word form of the following numbers.

21. 400 + 90 + 4

_____

22. 3 hundreds 7 tens 3 ones.

_____

23. 7,000 + 100 + 6

_____

C. Adding and Subtracting Place Value Numbers

Example: Write the following in *standard form,* then calculate the answer.

3 tens 5 ones plus 9 tens
35 + 90 = 125

Example: Write the following in *expanded form*. Then calculate the answer.

3 hundreds 3 tens 5 ones plus 2 hundreds 9 tens
(300 + 30 + 5) + (200 + 90) = 335 + 290 = **625**

Example: Calculate forty-two minus 2 tens. Write the answer in *word form*.

42 – 20 = 22 = **twenty-two**

Example : Use the following digits to write all numbers greater than 4000.

2 **0** **6** **7**

The numbers must be greater than 4,000, so the number in the thousands place must be either 4 or greater than 4, and only 6 and 7 are greater than 4 in this set. When doing these types of problems, list the numbers from smallest to biggest.

6,027	6,072	6,207	6,270	6,702	6,720
7,026	7,062	7,206	7,260	7,602	7,620

Student Practice

Write the following in standard form and calculate.

24. Add 4 hundreds 6 tens and 5 hundreds 4 ones:

_____

25. Subtract 2 hundreds from 9 hundreds 3 tens 5 ones:

_____

26. Add 8 tens and 8 hundreds 9 ones:

_____

27. Subtract 2 hundreds 3 tens 4 ones from 2 hundreds 4 tens 4 ones:

_____

Student Practice

Students must show their work in the space provided.

The following items are on sale. Write the savings on each item in the blank space provided below. ***[Regular price – Sale price]***

Summer dresses	Regular price: $70	Sale price: $58	28. _____
Stockings	Regular price: $8	Sale price: $5	29. _____
Sandals	Regular price: $67	Sale price: $45	30. _____
Jackets	Regular Price: $130	Sale price: $95	31. _____

32. Rhonda buys a dress and a pair of sandals. How much money does she save by buying at the reduced prices?

_____

33. Amy spends $100 and buys four items at the reduced price. She buys two pairs of stockings. What else does she buy?

_____

34. What are the savings on two jackets and two pairs of stockings?

_____

CHALLENGE!

35. What is the largest number that can be made from the following digits?

4 1 5 0

_____

36. What number is in the hundreds place?

_____

Answers of Student Practice

1) ten; 90
2) hundreds; 700
3) ones; 9
4) thousands; 8,000
5) hundreds; 900
6) thousands; 9,000
7) tens, 60
8) hundreds, 100
9) 800 + 40 + 9
10) 1,000 + 600 + 50 + 8
11) 500 + 40 + 8
12) 3,000 + 200 + 50 + 8
13) 200 + 40 + 8
14) 5,000 + 600 + 80
15) 7,406
16) 3,066
17) 2,070
18) 5,890
19) 325
20) 9,090
21) four hundred ninety-four
22) three hundred seventy-three
23) seven thousand one hundred six
24) 964 [460+504]
25) 735 [935 - 200]
26) 889 [80+809]
27) 10 [244 - 234]
28) $12 [70 – 58]
29) $3 [8 – 5]
30) $22 [67 – 45]
31) $35 [130 – 95]
32) $34 [12+22]
33) two pairs of sandals [45+45+5+5=100]
34) $76 [35+35+3+3]
35) 5,410
36) 4

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MATH: Place Value (W1)

Agradeahead™
blended learning

Now, more than ever, kids need supplemental education!

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