# A gradeahead ™
blended learning

2ⁿᵈ Grade Math
Curriculum Sample

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

This school year, our academy's 2ⁿᵈ 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.
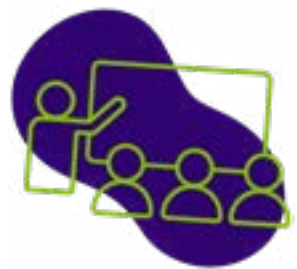
Here's how it works:
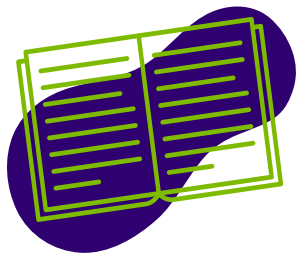
Blended Learning Booklet

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 2ⁿᵈ 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.

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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:
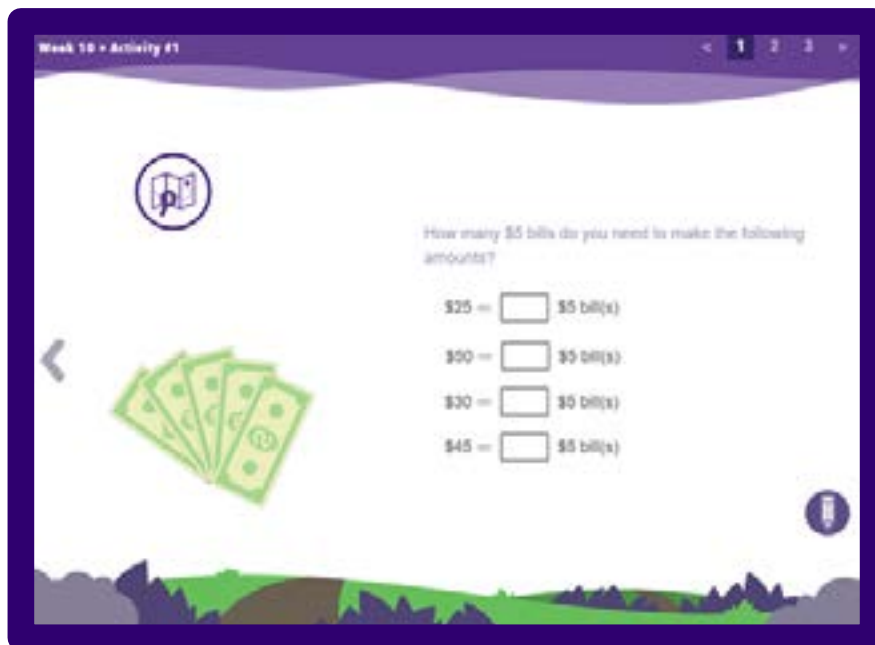
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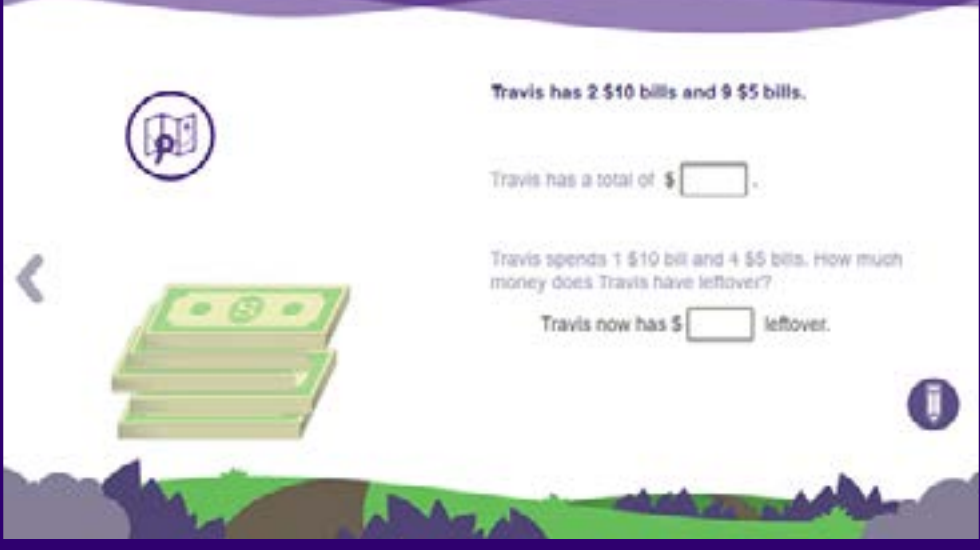
< 1 **2** 3 4 >

Travis has 2 $10 bills and 9 $5 bills.

Travis has a total of $ [____] .

Travis spends 1 $10 bill and 4 $5 bills. How much money does Travis have leftover?

Travis now has $ [____] leftover.

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.

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blended learning

Lesson Booklet Sample
2nd Grade Math

Print it out and try it!

A gradeahead™

2nd Grade • Month 3
MATH

BLENDED LEARNING LESSON BOOKLET

NAME _____

Money - Coins

Teaching Tip: *This week, students will be learning about coins. Using real coins can help the students better understand the difference between each one. When counting nickels, the students should be counting by 5s. When using dimes, the students should be counting by 10s.*

Student Goals:

✓ I will be able to identify each coin and how much each coin is worth.

✓ I will be able to make a certain amount using the least number of coins.

✓ I will be able to count a set of coins its total worth.

✓ I will be able to solve simple word problems involving coins.

A. Coins

There are four coins that are commonly used: the penny, the nickel, the dime, and the quarter.

Coins	Amount	Coins	Amount
Quarter	25¢	Nickel	5¢
Dime	10¢	Penny	1¢

When working with money, you should also understand the following:

$ = This sign means "dollar" and is always written <u>before</u> the amount.
¢ = This sign means "cent" and is always written <u>after</u> the amount.

100¢ = $1

2 quarters = 50¢, 3 quarters = 75¢, 4 quarters = 100¢ or $1

B. Counting Coins

Note: The worksheets that accompany these examples use the first letter of each coin to represent that coin and its amount.

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_____

Example: How much money do you have if you have 2D + 2N + 2P?

Two dimes are 20¢ (10¢ + 10¢), two nickels are 10¢ (5¢ + 5¢), and two pennies are 2¢ (1¢ + 1¢).
If we add these together, we get 20¢ + 10¢ + 2¢ = 32¢
OR
We can also count first by 10s twice to get 20¢. (10,20)
Then, continue counting by 5s twice to get 30¢. (25, 30)
Finally, count by 1s twice to get 32¢. (31, 32)

32¢

Example: How much money is shown below?

There is 1 quarter, 1 dime, and 3 pennies in the picture. 1 quarter is 25¢, 1 dime is 10¢, and 3 pennies are 3¢.
25¢ + 10¢ + 3¢ = 38¢
OR
We can also use counting to solve this.
We can start with the quarter, 25¢.
Then, continue counting by 10 once to get 35¢.
After that, we have 3 pennies left so we count by 1s three times to get 38¢. (36, 37, 38)

38¢

Student Practice	**How much money do you have if you have the following amounts?**		
	1. 1Q + 2D _____	2. 1N + 3P _____	3. 2D + 2N _____
	4. 2D + 3P _____	5. 1Q + 1P _____	6. 3D + 1N _____
	7. 4D + 1P _____	8. 1Q + 1D _____	9. 1D + 4N _____

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C. Making the Least Number of Coins

Note: When a question asks to use the least number of coins possible, always start with the largest coin. Use as many of those coins as possible without going over the amount. Continue with the second largest coin, and keep doing the same until you reach the required amount.

Example: Make 55¢ using the least number of coins possible.

Start with the coin that has the highest value, the quarter.
Use quarters until you cannot use them anymore, in this case, 2 quarters. Now you have made 50¢, but you need 55¢.
55 – 50 = 5¢, so you need 5¢ more.
A nickel is 5¢, so use 1 nickel.

2Q, 1N

Example: Make 65¢ using the least number of coins possible.

Again, start with the quarter and use quarters until you cannot use them anymore. Here, we can use 2 quarters to make 50¢.
65 – 50 = 15¢, so you still need to make 15¢.
Now, use all the dimes you can, since they're the next highest coin. Here, you can use 1 dime.
15 – 10 = 5¢, so you still need to make 5¢.
The highest coin after the dime is the nickel, so use nickels until you cannot use them anymore. You can use 1 nickel.

2Q, 1D, 1N

	How can you make the following using the least number of coins?
Student Practice	10. 50¢ 11. 27¢ 12. 35¢ _____ _____ _____ 13. 65¢ 14. 56¢ 15. 40¢ _____ _____ _____ 16. Circle all that are true. A. 95¢ can be made with dimes only. B. 3Q and 3N make less than 95¢. C. To make 95¢ using the least number of coins, you only need quarters and dimes. D. You will need a total of 5 coins to make 95¢ using the least number of coins. E. 95¢ can be made with only nickels.

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D. Word Problems with Coins

Example: A can of soup costs 20¢. A man buys 4 cans. How much money does he spend?

20¢ + 20¢ + 20¢ + 20¢ = 80¢

80¢

Example: Nicole buys a pencil for 85¢. How can she pay for the pencil using the least number of coins?

Start by using the coin with the highest value, the quarter. You can use 3 quarters. Now you have made 75¢, but you need 85¢.
85¢ - 75¢ = 10¢, so you need 10¢ more.
A dime is 10¢, so use 1 dime.

3Q, 1D

Example: Katie wants to buy a juice box for 55¢. She gives the cashier 3 quarters. How much money does Katie get back?

First, you need to figure out how much money Katie gave the cashier.
3 quarters = 75¢.
The juice box only costs 55¢, so 75¢ - 55¢ = 20¢

Katie gets 20¢ back.

Student Practice *Encourage students to show their work in the space provided.*	17. Angie buys a brownie. She pays with 1 quarter and 2 nickels. How much does the brownie cost? _____ 18. Victor bought two cans of juice for 30¢ and 35¢. How much was the juice altogether? _____ 19. Jamie buys a cup of coffee for 30¢. She gives the cashier four dimes. How much money does she get back? _____

20. Manny has 75¢. He wants to buy 2 lollipops that cost 40¢ each. Does Manny have enough money? If he doesn't, how much more money does he need?

_____

CHALLENGE!

21. George went to the hardware store to buy nails. He bought a pack of nails for 65¢. He gave the cashier 75¢. He got back 6 coins. What were they?

_____

22. The total of four coins is 46¢. One of them is a quarter. What are the other three coins?

_____

Answers of Student Practice

1)	45¢ [25 + 20 = 45]	2)	8¢ [5 + 3 = 8]
3)	30¢ [20 + 10 = 30]	4)	23¢ [20 + 3 = 23]
5)	26¢ [25 + 1 = 26]	6)	35¢ [30 + 5 = 35]
7)	41¢ [40 + 1 = 41]	8)	35¢ [25 + 10 = 35]
9)	30¢ [10 + 20 = 30]	10)	2Q [25 + 25]
11)	1Q, 2P [25 + 2]	12)	1Q, 1D [25 + 10]
13)	2Q, 1D, 1N [50 + 10 + 5]	14)	2Q, 1N, 1P [50 + 5 + 1]
15)	1Q, 1D, 1N [25 + 10 + 5]	16)	B, C, D, E
17)	35¢ [25 + 10 = 35]	18)	65¢ [30 + 35 = 65]
19)	10¢ [4 dimes = 40¢, 40 – 30 = 10]	20)	No, he needs 5¢ more [40 + 40 = 80, 80 – 75 = 5]
21)	1N, 5P [75 – 65 = 10]	22)	2D, 1P [46 – 25 = 21, 10 + 10 + 1 = 21]

STOP   *Continue your weekly practice online!*

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Agradeahead™
blended learning

Now, more than ever, kids need supplemental education!

A Grade Ahead makes it easy for you to help your students get caught up – and even stay ahead of – their peers. Our students are top performers at the heads of their classes who get into Ivy League schools and perform well on standardized tests. They reach their goals of becoming doctors, engineers, and other well-paid professionals.

Why A Grade Ahead?

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1. **Our curriculum is outstanding**, with clear lessons and homework activities that are challenging and interesting. They are not boring and repetitive like some other programs.

2. **Our parents love us**, with more than 90% referring us to their friends and families year after year. **See what real parents are saying in "Our Results"**.

3. **Our small group classes are like tutoring, only better.** With a maximum of 8 students per class, your child will get plenty of individualized attention.

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