180 DAYS™

Lessons and Activities

Math for Second Grade

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PRACTICE • ASSESS • DIAGNOSE

Level
2

180 Days of
MATH
for Second Grade

26 – 14 = 12

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INTRODUCTION AND RESEARCH

The Need for Practice

In order to be successful in today's mathematics classroom, students must deeply understand both concepts and procedures so that they can discuss and demonstrate their understanding. Demonstrating understanding is a process that must be continually practiced in order for students to be successful. According to Marzano (2010, 83), "practice has always been, and will always be, a necessary ingredient to learning procedural knowledge at a level at which students execute it independently." Practice is especially important to help students apply their concrete, conceptual understanding to a particular procedural skill.

Understanding Assessment

In addition to providing opportunities for frequent practice, teachers must be able to assess students' understanding of mathematical procedures, terms, concepts, and reasoning (Kilpatrick, Swafford, and Findell 2001). This is important so that teachers can adequately address students' misconceptions, build on their current understanding, and challenge them appropriately.

Assessment is a long-term process that often involves careful analysis of student responses from a lesson discussion, project, practice sheet, or test. When analyzing the data, it is important for teachers to reflect on how their teaching practices may have influenced students' responses and to identify those areas where additional instruction may be required. In short, the data gathered from assessments should be used to inform instruction: slow down, speed up, or reteach. This type of assessment is called *formative assessment* and is used to provide a seamless connection between instruction and assessment (McIntosh 1997).

HOW TO USE THIS BOOK

180 Days of Math for Second Grade offers teachers and parents a full page of daily mathematics practice activities for each day of the school year.

Easy to Use and Standards-Based

These activities reinforce grade-level skills across a variety of mathematical concepts. The questions are provided as a full practice page, making them easy to prepare and implement as part of a classroom morning routine, at the beginning of each mathematics lesson, or as homework.

Every second-grade practice page provides 8 questions, each tied to a specific mathematical concept. Students are given the opportunity for regular practice in each mathematical concept, allowing them to build confidence through these quick standards-based activities.

Question	Mathematics Concept	NCTM Standard
1	Number Sense	Understands numbers, ways of representing numbers, relationships among numbers, and number systems
2	Addition	Understands meanings of operations and how they relate to one another; Computes fluently and makes reasonable estimates
3	Subtraction	
4	Algebraic Thinking	Understands patterns, relations, and functions; Represents and analyzes mathematical situations and structures using algebraic symbols
5	Geometry	Analyzes characteristics and properties of two-dimensional and three-dimensional geometric shapes and develops mathematical arguments about geometric relationships
6	Measurement	Understands measurable attributes of objects and the units, systems, and processes of measurement; Applies appropriate techniques, tools, and formulas to determine measurements
7	Data Analysis	Formulates questions that can be addressed with data and collects, organizes, and displays relevant data to answer them; Selects and uses appropriate statistical methods to analyze data
8	Word Problem/Logic Problem or Mathematical Reasoning	Builds new mathematical knowledge through problem solving; Solves problems that arise in mathematics and in other contexts

Standards are listed with the permission of the National Council of Teachers of Mathematics (NCTM). NCTM does not endorse the content or validity of these alignments.

HOW TO USE THIS BOOK *(cont.)*

Using the Practice Pages

As outlined on page 4, every question is aligned to a mathematics concept and standard.

Practice pages provide instruction and assessment opportunities for each day of the school year.

Each question ties student practice to a specific mathematics concept.

DAY 4

NAME:_____

DIRECTIONS Solve each problem.

SCORE

1.☺☺

2.☺☺

3.☺☺

4.☺☺

5.☺☺

6.☺☺

7.☺☺

8.☺☺

____ / 8
Total

1. Is this a fair share?

Circle: yes   no
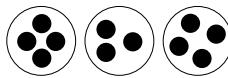
2. 6 + 2 = _____

3. Subtract.

☐ – ☐ = ☐

4. ☐ + 1 = 4 + 4

5. Color a base of the solid.
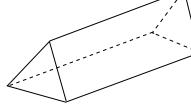
6. Write the area.
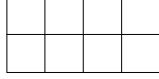
area = ____ squares

7. Toy Train Sales Last Week

Mon.	
Tues.	
Wed.	
Thurs.	
Fri.	
Sat.	
Sun.	

Key
= 1 train

How many trains were sold on Monday?

_____

8. I am 4 more than 12. What number am I?

_____

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Using the Scoring Guide

Use the scoring guide along the side of each practice page to check answers and see at a glance which skills may need more reinforcement.

Fill in the appropriate circle for each problem to indicate correct (☺) or incorrect (☺) responses. You might wish to indicate only incorrect responses to focus on those skills. (For example, if students consistently miss numbers 2 and 6, they may need additional help with those concepts as outlined in the table on page 4.) Use the answer key at the back of the book to score the problems, or you may call out answers to have students self-score or peer-score their work.

NAME:_____

DIRECTIONS Solve each problem.

1. Write the missing number.

69		71	72	73

2.
```
   4
+  8
_____
```

3. 6 – 4 = _____

4. Continue the pattern.

A   A   B   B   A

_____ _____ _____

5. Draw a line of symmetry.
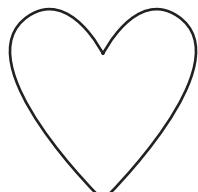
6. Show 10 o'clock.

7.

Pizzas Ordered

Pizza				
Cheese				
Pepperoni				
Sausage				
Combination				

0   4   8   12   16
Number of Pizzas
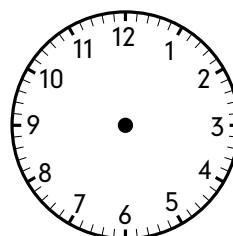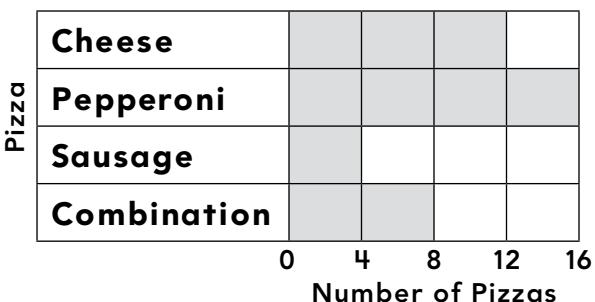
How many pepperoni pizzas were ordered?

_____

8. Six frogs are on a log. Two hop off the log. How many frogs are still on the log?

_____

1. ☺ ☹

2. ☺ ☹

3. ☺ ☹

4. ☺ ☹

5. ☺ ☹

6. ☺ ☹

7. ☺ ☹

8. ☺ ☹

___ / 8
Total

NAME:_____

DIRECTIONS Solve each problem.

1. Write 95 in expanded notation.

_____

2. Ninety-one plus eight equals

_____.

3.   67
    − 43
    _____

4. $6 + \boxed{} = 13$

5. How many angles?

_____
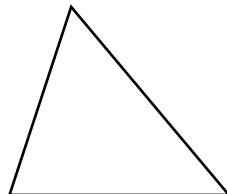
6. Write the day of the week that comes before Sunday.

_____

7.

Miles Run

Max	👟👟👟👟
Cheryl	👟👟
Brandon	👟👟👟

Key
👟 = 10 miles

If Brandon runs 10 more miles, how many miles will he have run?

_____

8. Write the number that has 2 in the tens place, 6 in the hundreds place, and 0 in the ones place.

_____