

Really Good Stuff® Activity Guide

Magnetic Modeling Number Line Kit

Congratulations on your purchase of this Really Good Stuff®

Magnetic Modeling Number Line Kit—a fun and motivating way to get kids “hoppin’ into adding, subtracting, skip counting, and many other number-sense concepts.

This Really Good Stuff® product includes:

- 1 Magnetic Number Line (3 strips)
- 1 Magnetic Frog
- 15 Magnetic Yellow Arrows
- 15 Magnetic Red Arrows
- 36 Magnetic Jumping Pieces
- This Really Good Stuff® Activity Guide

Displaying the Magnetic Modeling Number Line Kit

Before displaying the **Magnetic Modeling Number Line Kit**, make copies of this Really Good Stuff® Activity Guide and file the pages for future use. Or, download another copy of it from our Web site at www.reallygoodstuff.com. Display the *Number Line* where students will be able to see and interact with it easily.

Introducing the Magnetic Modeling Number Line Kit

Review the concept of a number line with your students by pulling out a number line your class is already familiar with or pointing out one they may have on their desks. Then show the *Magnetic Modeling Number Line*. Ask students what they notice about the color patterns on the numbers. Students may notice that the numbers 0, 10, 20, and 30 are yellow, while the numbers 5, 15, and 25 are red. Compare these to numbers on a hundreds chart in your classroom or ask students to make connections to counting by fives and tens or by counting nickels and dimes. Explain that when they skip count, they are simply skipping numbers at regular intervals as they do when they count by twos, fives, or tens. Your students may also be able to make other skip-counting connections, like counting by fives on the face of a clock or counting by sevens on a calendar.

Next, introduce the *Magnetic Frog*. Your class may even want to name him. Demonstrate how the *Frog* can “jump” from one number to the next, leaving a *Jumping Piece* behind him to show his path. Explain that the *Frog* will help them all to skip count. Have a volunteer come up and move the *Frog* in a pattern of counting by twos. As the student moves the *Frog* along the *Number Line*, place a *Jumping Piece* in its path for each number. For example, if a student counts from 2 to 4, place a *Jumping Piece* between the 2 and 3 and between the 3 and 4. This visual track will help students to see the numbers that the *Frog* jumped. Repeat this activity, showing how the *Frog* can jump by fives and tens. Remind students that when the *Frog* begins his skip-counting pattern with a particular number, like 5, he will jump over that many numbers again and again. Move the same five *Jumping Pieces* as he jumps from 5 to 10, then from 10 to 15, and so on, in order for students to see that the pattern is the same. Later, try jumping by threes, fours and sixes, too.

Once students are familiar with the skip-counting patterns, show them how the *Frog* can also help with addition and subtraction fact acquisition. For instance, write a fact family on the board, such as $2 + 3 = 5$, $3 + 2 = 5$, $5 - 2 = 3$, and $5 - 3 = 2$. Have the *Frog* begin at the number 2. Show how he jumps three times forward because adding means making more and the number will be larger. Place three *Jumping Pieces* to show the *Frog's* path so that students can see that he ends at 5. Use the *Yellow Arrows* to show where the *Frog* begins and ends. Demonstrate the commutative fact the same way, starting on 3 and jumping twice to end at 5. Again, use the *Yellow Arrows* to show where the *Frog* starts and ends. Similarly, use the *Frog* to show how to subtract by starting at the 5 and jumping backward because subtraction means taking away, and the numbers will be getting smaller. Use the *Red Arrows* to show where the *Frog* starts and ends. Begin at 5 and have the *Frog* jump back two, leaving two *Jumping Pieces* behind him, and end at 3.

Frog Jumping Center

At a math center, have the *Magnetic Modeling Number Line* and *Magnetic Pieces* available. Leave a set of flash cards and counters at the center. Instruct students to use the counters to visualize each fact, and then demonstrate the same math fact by using the *Magnetic Frog* to jump to add or subtract. For example, if the fact is $5 + 3$, students make a set of five counters and a set of three counters, then add them together to show that the sum is eight counters. Then students take the *Frog* and, starting at 5, make the *Frog* jump ahead three numbers, placing a *Jumping Piece* on the *Number Line* for each jump. Explain that students are to place *Magnetic Arrows* at the beginning number in the problem, another at the sum, and then compare the sum of counters with the answer on the *Number Line*.

Show how subtraction facts should be practiced the same way: Students use the counters to make a set for the first number in the problem and then take away the second number. The *Frog* on the *Number Line* will start at the first number, and jump backward along the *Number Line*, leaving a *Jumping Piece* to mark each jump. Again, remind students to mark the beginning number and the difference with *Magnetic Arrows* and then compare the number of counters to the answer marked on the *Number Line* to see if they have found the correct answer for each subtraction fact.

Big Frog, Little Frog

Create a Big Frog headpiece for students using a simple strip of green construction paper stapled into a headband with two large eyes glued to the top. Provide a set of facts for students to act out independently using the *Magnetic Number Line* and *Magnetic Frog* (little frog). After a student completes the problem on the *Magnetic Number Line*, have the student “jump it out” along a large floor number line or numbers taped to the floor from 0 to 18. When a student uses the *Magnetic Frog* to learn that $8 + 6 = 14$, he or she will become the Big Frog and act out the *Magnetic Frogs* movement, beginning at 8 and jumping ahead 6 times to land on 14.

Odd or Even

Ask students to share things they know about odd and even numbers. Mark the odd numbers along the *Magnetic Number Line* with *Red Arrows*. Ask students what they notice about the *Arrows*. Students may remark that they are skip counting by twos or they are identifying the odd numbers. Next, add the *Yellow Arrows* to the even numbers and ask students what they notice about these *Arrows*. Refer to the *Number Line* when reviewing odds and evens to give students a visual reminder.

RIBBIT Skip Counting

Copy and distribute the *Modeling Line Reproducible*. Have students cut apart the number line and paste it on a piece of construction paper. Use the *Magnetic Number Line* to help students practice skip counting in small groups. Have students clap or chant as you move the *Frog* along the *Number Line* in a pattern, counting by twos, fives, and tens. To add to the excitement, tell students to say *ribbit* between each number and to follow along on their reproducible with their finger or a manipulative.

Froggy Facts Reproducible

Copy and distribute the *Froggy Facts Reproducible*. Instruct students to draw a red arrow at the beginning of each problem and then make green frog jumps to the answer. Tell students to draw a yellow arrow at the answer to each problem. You may want to demonstrate this process on the *Magnetic Number Line* before students begin their independent work.

Skip Counting Practice Reproducible

Copy and distribute the *Skip Counting Practice Reproducible*. Instruct students to use a green crayon to show skip counting by each number on the reproducible. Either review with students using the *Magnetic Number Line* or collect as an assessment.

All activity guides can be found online:



Froggy Facts



Directions: Show how you used the number line to solve each problem. Draw a red arrow at the beginning of the problem. Mark your frog's jumps with a green crayon. Draw a yellow arrow at your answer.

$2 + 5 =$



$3 + 2 =$



$1 + 4 =$



$6 + 6 =$



$5 + 5 =$



$7 + 3 =$



$8 + 4 =$



$5 + 7 =$



0 1 2 3 4 5 6 7 8 9 10
11 12 13 14 15 16 17 18 19 20 21
22 23 24 25 26 27 28 29 30



0 1 2 3 4 5 6 7 8 9 10
11 12 13 14 15 16 17 18 19 20 21
22 23 24 25 26 27 28 29 30



Skip Counting Practice



Directions: Use a green crayon to show how to skip count by the following numbers:

Count by 2s:

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Count by 5s:

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Count by 10s:

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Count by 3s:

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Count by 4s:

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Count by 6s:

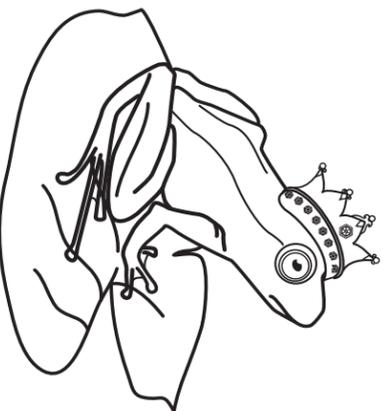
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Name: _____

Date: _____

On Lily Pad Lane

1. The frog prince lives at 11 Lily Pad Lane. He wants to visit Kermit, who lives 18 numbers higher than him on Lily Pad Lane. What is Kermit's address?
2. Francine the Fly lives at 26 Lily Pad Lane. She needs to go pick up Betsy Butterfly, who lives 6 houses lower than her. What is Betsy Butterfly's address?
3. Freddy J. Frog, who lives at 12 Lily Pad Lane, wants to take one of his famous shoofly pies to Sally Spider, who lives at 1 Lily Pad Lane. How far down must he hop to get there?
4. Kevin Cricket lives at 30 Lily Pad Lane. He wants to pay a visit to Willy Worm, who lives at 25 Lily Pad Lane. How far down must he hop to get to Willy's house?
5. Croaker lives at 30 Lily Pad Lane. He is going to visit Flycatcher, who lives 28 numbers lower than him. What is Flycatcher's address?



Really Good Stuff® Activity Guide Slide and Learn Number Lines

Congratulations on your purchase of this Really Good Stuff® **Slide and Learn Number Lines**—a set of fun, interactive number lines to help students learn number sense as well as addition and subtraction skills, while making their frogs hop from one number to another.

- This Really Good Stuff® product includes:**
- 12 **Slide and Learn Number Lines**
 - This Really Good Stuff® Activity Guide

Using the Slide and Learn Number Lines

Before using the Number Lines, make copies of this Really Good Stuff® Activity Guide, cut apart the reproducibles, and file the pages for future use. Or, download another copy of it from our Web site at www.reallygoodstuff.com.

Introducing the Slide and Learn Number Lines

Divide students into pairs or small groups and distribute Number Lines to each pair or group, keeping one to use. Show students how to move the frog slider from number to number up and down the number line. Have them practice using the number line by placing the frog at a specific number, then instruct them to make the frog hop to a second number. For example, say, "If I start with three and I add five more, how many will I have all together?" Try several problems together until students understand how the Number Line works.

Introducing Number-Line Addition

Copy the Frog and Lily Pad Patterns Reproducible and the Student Lily Pad Patterns Reproducible. Cut apart the Student Lily Pads, distribute them, and have students color and cut them out. Meanwhile, color the large Frog and Lily Pad patterns and cut them out. Demonstrate how to use the number lines for addition: Draw a large 0–30 number line on the board and write the problem $5 + 10 = ?$ next to the number line. Point to the 5 in the equation and say, "The first number in my addition problem is the number 5, so I am going to move my frog to the 5 on my number line." Then move the Frog Pattern and attach it to the board above the 5 with poster putty. Instruct students to move the frog on their number lines to the 5 as you count together.

Stick the Lily Pad under the 5 on the board and tell students that you are putting it there so that you remember the number you started with. Have students place their Lily Pad under the 5 on their Number Line, too.

Ask a student to come up and "jump" the frog up 10 numbers from the Lily Pad as the whole class counts aloud. Then have students slide the frog marker on their Number Line up 10 spaces, as well. Ask students to share the number their frog landed on. Point to your original problem and tell them, "We added the numbers 5 and 10 together by starting with 5 and making 10 more hops." Have them say $5 + 10 = 15$ as you point to each number. Encourage students to continue to use their Lily Pad to mark their starting point on their number line and to count up from that number to discover the answers to addition problems.

Introducing Number-Line Subtraction

Demonstrate a subtraction problem: Write $14 - 9 = ?$ on the board. Point to the 14 in the equation and say, "The first number in my subtraction problem is the number 14, so I am going to move my frog to the 14 on my number line." Demonstrate on the number line on the board by moving the Frog Pattern

and attaching it to the board above the 14 with poster putty. Have students move the frog on their number lines to the 14 as you count together.

Stick the Lily Pad pattern under the 14 on the board and tell students that you are putting it there so that you remember the number you started with. Have students place their Lily Pad under the 14 on their Number Line, too.

Explain that in a subtraction problem, you are taking numbers away so this time you are going to jump the frog down from the 14. Ask a student to come up and "jump" the frog down 9 numbers from the Lily Pad as the whole class counts aloud. Then have students slide the frog marker on their Number Line down 9 spaces, as well. Ask your students to share the number their frog landed on. Point to your original problem and tell them, "We subtracted the number 9 from the number 14 by starting with 14 and hopping down 9 numbers." Have them say $14 - 9 = 5$ as you point to each number. Encourage students to continue to use their Lily Pad to mark their starting point on their number line and to count down from that number to discover the answers to subtraction problems.

Lily Pad Math

Use the Lily Pad Practice Reproducible to create addition and subtraction practice problems for students to solve with their Number Lines: Simply write appropriate addition and/or subtraction problems inside the Lily Pads on a copy of the reproducible, then make and distribute copies.

Lily Pad Lane Word Problem Challenge

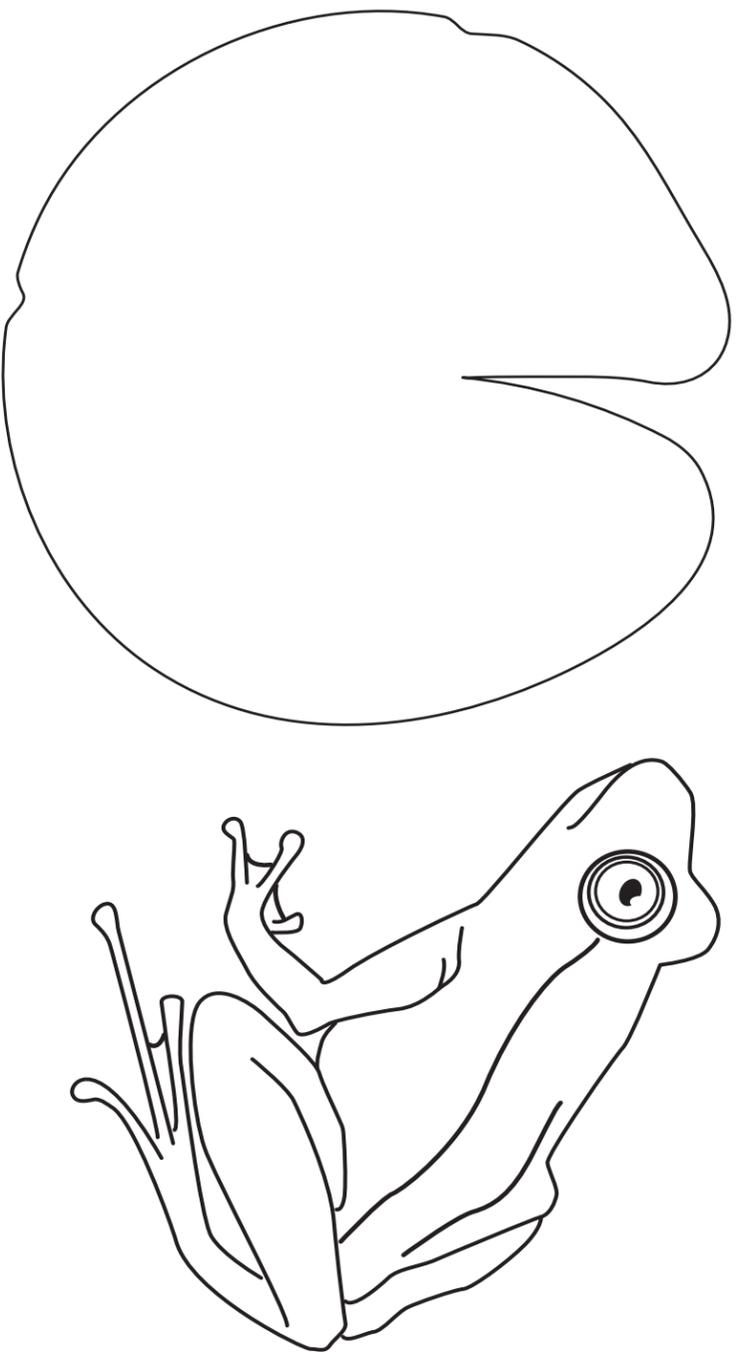
Copy and distribute the On Lily Pad Lane Reproducible for Students to practice using a Number Line with word problems. Have students work together to solve the problems and then share their answers with the class. For additional practice, have students write Lily Pad Lane word problems for the rest of the class to solve. Answers: 1.) 29 Lily Pad Lane; 2.) 20 Lily Pad Lane; 3.) 11 hops; 4.) 5 hops; 5.) 2 Lily Pad Lane

Frog Math Center

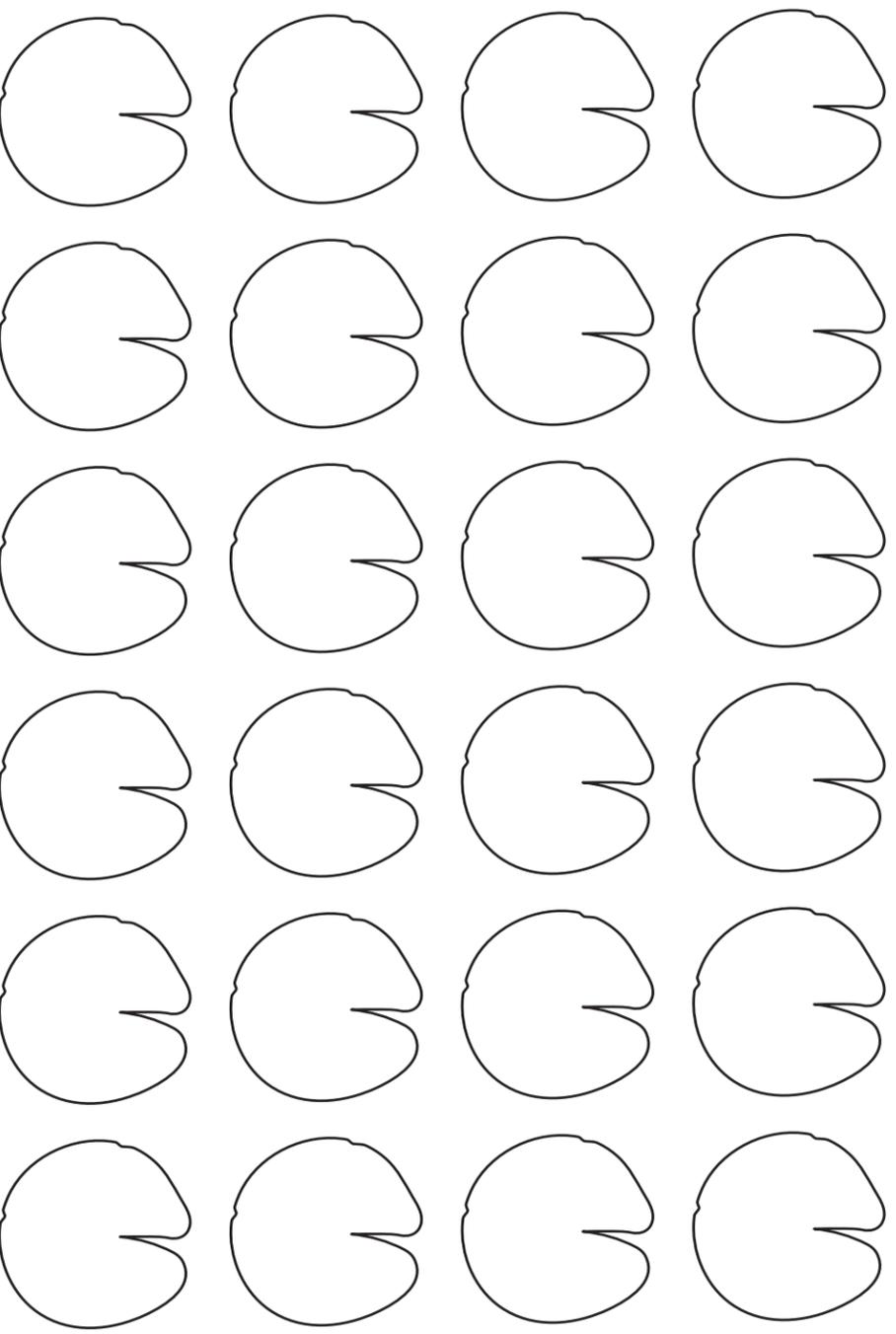
Create a portable math center: Place a Number Line, a copy of a small Lily Pad from the Student Lily Pads Patterns Reproducible, and copies of programmed Lily Pad Practice Reproducibles and the On Lily Pad Lane Reproducibles in a large green envelope that you have decorated with Frog Patterns from the Frog and Lily Pad Patterns Reproducible. Instruct students that during center time they are to take an envelope to their desks and do the worksheets using the Number Line and the small Lily Pad marker.

Number-Line Madness

Ahead of time, gather a pack of addition or subtraction flash cards and two Number Lines. Divide students into two teams and have them line up parallel to each other in single lines. Give the student at the head of each line a Number Line. Stand at the head of the lines and hold up a flash card for the students to see. Explain how to play: Each student uses a Number Line to find the solution and shouts out the answer. The student who gives the first correct answer hands the Number Line to the next person in his line and walks to the end of the line. The other student hands the next person the Number Line and sits down in his or her seat. Play continues until one team wins with the last person standing. Play several games and tally the wins to award a grand prize to the winning team.



Student Lily Pads Patterns Reproducible



Name: _____ Date: _____

Instructions: Use your number line to solve the following problems.

