

Arithmetic Teacher Guide

Week 1

K-3rd Grades

Goals

- **K-1st** – To write numbers clearly; to have good eye-hand coordination and self-control to color carefully and within the lines; to recognize number words from zero to five; to count to 50; to begin learning Addition Family 1.
- **2nd-3rd** – To review counting to 100; to know number words from zero to twenty; to know the terms of an addition problem; to know addition twins; to begin learning Addition Families 1-2.

Supplies

- *General Supplies Needed This Year –*
 - Counting objects
 - Crayons
 - Lego® bricks
 - Straws (110 straws) and 10 rubber bands
 - Corn meal or sand in a 9"x13" pan
 - White board or chalkboard
 - [A clock](#)
 - An [abacus](#) (not required, but very nice to have)
 - A 12-inch ruler
 - Board games and card games

Easy counting objects:

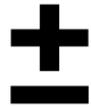
- Buttons - I bought a few dollars' worth of buttons and placed them in a ziplock bag with 10 paper Dixie® cups. That was 17 years ago – and we're still using them!
- Marbles – These are very inexpensive at a dollar store.
- Popsicle sticks
- Rigatoni or Penne pasta. Add shoestring or yarn to the bag you store it in.
- Crayons – Because they're always close at hand, crayons get used more often than any other counting object in our home.

(Keep counting objects out of reach of small children!)

About Lego® Bricks:

- Lego® bricks – Because we have three boys in our home, we use Lego bricks rather than purchasing math manipulatives. Since they stack into numerous geometric shapes, maybe they're even better! (Shhh... don't tell how much money you've now saved!)

- **K-1st** –
 - Student is asked to color a picture in a coloring book daily. You could also print a coloring page from a website like these:



- [Aish.com - Torah portions \(Jewish\)](#)
- [Calvary Chapel - from Old and New Testament \(Christian\)](#)

You may print a [Hundreds Chart](#) here.

- **2nd-3rd –**
 - 100 pennies and 1 one-dollar bill. Store money in a ziplock bag to be used during school time. (We'll be using dimes, nickels, and quarters soon.)
 - You may print a [Hundreds Chart](#) here.

Day 1

- **Math Drill Together**
 - Note: These drills will be very easy for Grades 2-3, but their difficulty will increase very soon. We recommend doing them anyway. Your student will love it!

Using Counting Objects, count from 1 to 10.



String the following amounts of pasta on a shoestring, and ask your child to count them.

3 1 5 4 6

Stack Lego bricks (or other toys with these colors), continuing the following pattern:

Red
Blue
Red
Blue

Try various other patterns now. Let your child choose patterns, too.

Play a game together!

- **K-1st –**
 - Be sure that your child consistently forms his numbers the same way every time, always starting at the top. If better hand coordination is needed, then sprinkle cornmeal or sand in a baking pan, and have your child form his numbers first in cornmeal.
 - Why is it important to do a coloring page daily? We are checking several things for your child this week. (1) Can he (or will he) carefully and patiently stay in the lines? (2) Does he have good enough eye-hand coordination to begin to learn to form his numbers smaller and yet neatly? (3) Does he have self-control? (4) Is he patient? Note that many of these are character qualities, all of which will be needed in arithmetic. If he is lacking in an area, begin to work on it throughout the day, proactively teaching *before* these things become an issue during daily math time. This will make school more pleasant!



- **2nd-3rd –**
 - Review how to set up an arithmetic assignment on notebook paper. (See p. 7 of this guide.)
 - If your child struggles with neat handwriting or eye-hand coordination, consider having him color a picture each day, too. (See note above, for K-1st.)

Day 2

- **Math Drill Together**
Show your child a clock that has numbers and hands. Point to each number, and count together to 12.



Write the numbers 1-12 on twelve individual pieces of paper. Lay them on a floor in the pattern of a clock. Make it a BIG clock!

Holding your child's hand, start at 1:00 and hop from number to number, saying the time as you go.

1:00
2:00
3:00
4:00
5:00
6:00
7:00
8:00
9:00
10:00
11:00
12:00

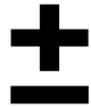
Now play the Clock Game. Call out various times, and have your child jump to each one, always going clockwise, the way the hands of the clock would go. (In other words, don't go backwards or counter-clockwise.) Applaud when your child jumps to the correct time!

For instance:

4:00
7:00
2:00
9:00
etc.

(Save the number cards to be used again.)

Play "I Spy" with a real clock. (Say, "I spy the number 4," and clap when your child finds the four.)



- **K-1st** –
 - See Day 1.
- **2nd-3rd** –
 - See Day 1.

Day 3

- **Math Drill Together**

Lay all the number cards on the floor and play the Clock Game again!

Now hold your child's hand and stand at 12:00 together. Tell your child that you're going to go backwards around the clock.

12:00
11:00
10:00
9:00
8:00
7:00
6:00
5:00
4:00
3:00
2:00
1:00

Ask your child to stand at 2:00. Ask your child to run as fast as he can to 10:00, running forwards.

Start at 2:00. Run fast to 10:00, running backwards.

Start at 10:00. Run fast to 4:00, running backwards.

Start at 4:00. Run fast to 8:00, running forwards.

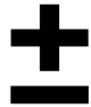
Continue playing, making up times to run to.

Ask your child to run to the time that they:

- wake up in the morning
- go to bed at night
- start school
- eat lunch
- etc.

Count out 10 straws and put a rubber band around them. (For 2nd grade, count out 20 straws, but only put a rubber band around 10, leaving 10 loose.)

- **K-1st** –
 - See Day 1.
- **2nd-3rd** –
 - Does your child know what the word **greater** means, when asked to circle the greater of two numbers? (Circle the **larger** number. Talk about how YHWH is greater than we are.)



- Does your child know what the word **vertical** means, when asked to write an addition problem vertically?
- When writing amounts less than a dollar, have your child write a zero before the decimal place. This will help him hold the place and keep things neat, and it will often remind him to use a decimal point in case he might forget.

Day 4

- **Math Drill Together**

Today you'll teach your child how to write the number zero. Pour corn meal or sand into a 9"x13" pan. Using your finger, illustrate how to write a zero:

- Start where 2:00 would be.
- Go backwards around the clock to 10:00.
- Continue around the clock until you're back at 2:00.

Allow your child to practice zeros in the pan.

Now draw zeros up in the air. (Keep your arms straight.)

Go to the kitchen and bake something together. As you dump ingredients into a mixing bowl, count down to zero. For instance, say:

**Let's fill up 1 cup of flour.
Now dump it in the bowl.
How many cups of flour do we have now?
That's right! Zero!**



Count to 10 on a ruler. Count to 10 in many other ways, using counting objects.

Display 2 straws. Ask, "How many more do I need to make 3?"

Display 3 straws. Ask, "How many more do I need to make 4?"

Display 4 straws. Ask, "How many more do I need to make 5?"

(For older children, display the set of 10 straws with a rubber band around it, *plus display 2 more* straws. Ask, "How many more do I need to make 13?" etc.)

- **K-1st** –
 - See Day 1.
- **2nd-3rd** –
 - Does your child know what **even** and **odd** mean? Draw a picture of a teeter-totter, and add children to each side, making it even or odd. You may want to count with him using a Hundreds Chart.
 - Be sure your child knows how to write times correctly.
 - Learning "twins" will reduce the number of facts your child needs to memorize.



Day 5

- **Math Drills Together**

On a big white board or chalkboard, write zeros with your child. Make them big!

As you write, each of you should say:

Start at 2:00
Go backwards to 10:00
Keep going around to 2:00

Now try writing zeros on notebook paper. Write ten zeros. Count the zeros together.

1 2 3 4 5 6 7 8 9 10

Using your hand or a piece of paper, cover one zero at a time and count backwards down to zero.

9 8 7 6 5 4 3 2 1 0

Hold two crayons behind your back. Pull them out in front of you. Ask your child, “How many crayons do I have?”

Hold one crayon behind your back. Pull it out in front of you. Ask your child, “How many crayons do I have?”

Hold zero crayons behind your back. Pull none out in front of you. Ask your child, “How many crayons do I have?”
etc.

Play a game together!

- **K-1st** –
 - See Day 1.
- **2nd-3rd** –
 - To determine when the last new moon was sighted in Israel, you can visit http://www.karaite-korner.org/holiday_dates.shtml. This will be Day 1 on the calendar. (Remember that day begins at sunset, but your child would write Day 1 on the next day. If the moon was sighted on the evening of the 4th day, for instance, Day 1 would be written on the 5th day of the week.) More information is available at <http://www.nazareneisrael.org/category/studies/torah-calendar/> Feel free to adapt this activity to your family’s beliefs.

