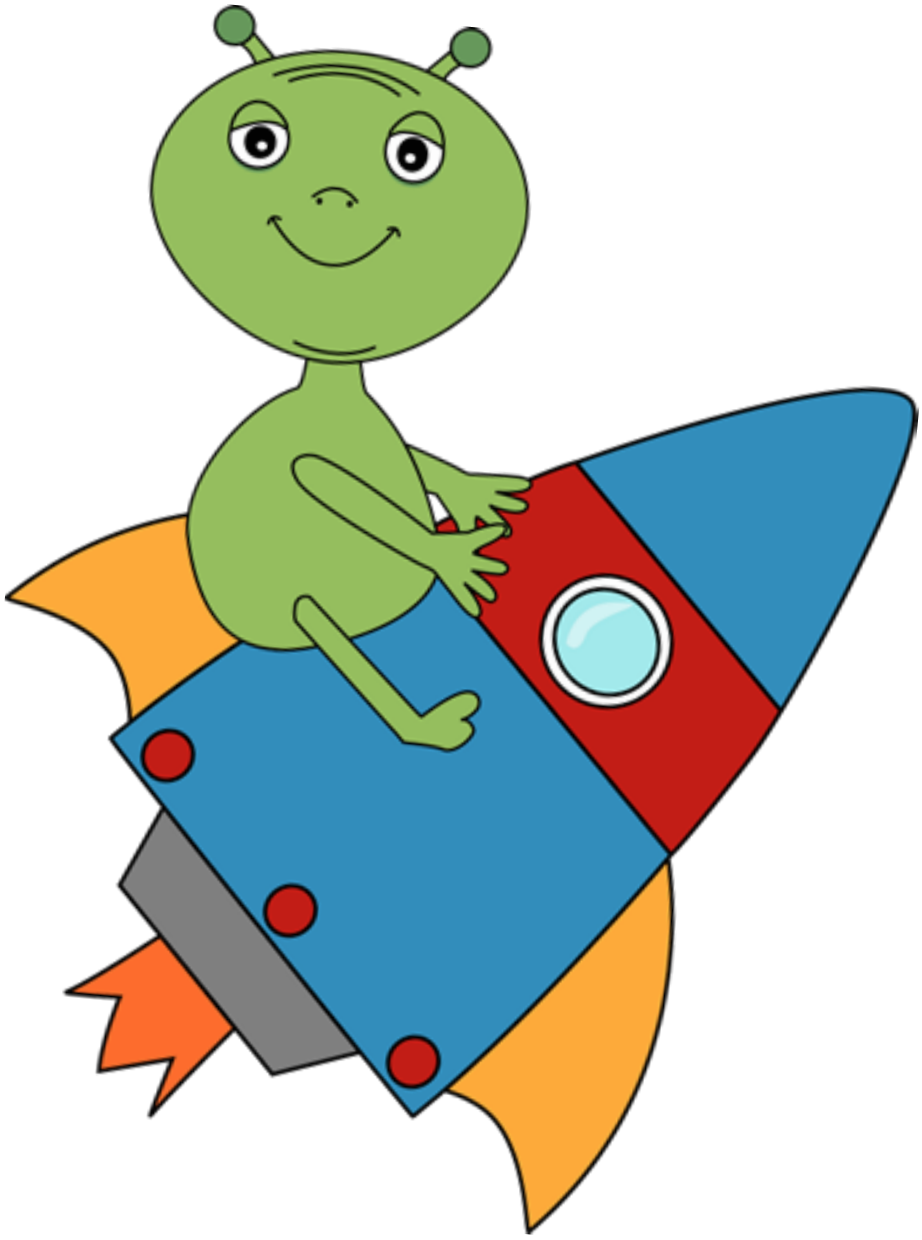
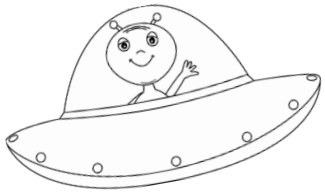


Galaxy Math

Lesson

Day 1



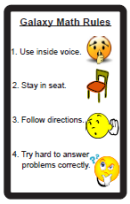
Lesson 1

Posters:	Galaxy Math Rules, Rocket Ship (cover of script)
Worksheets:	1.1, 1.2, 1.3
Folders:	Attendance/FC Log, Behavior Log, Sticker Chart
Materials:	Number Line 1.1, Beans, Math Circle, Timer

PLEASE NOTE:
Throughout each session, the student has many opportunities to earn checkmarks for his/her Sticker Chart. These are awarded for: Meeting/beating flash card score (Activity 1: begins on Lesson 4); following the Galaxy Math rules during the tutor-directed lesson (Activity 2); and for completing the game (Activity 3: BINGO, Alien, Star). Use the student's Behavior Log to record checkmarks throughout the tutoring session. At the end of the session, award stickers for the student's Sticker Chart based on the amount of earned checkmarks for that session. If the student does NOT earn a given checkmark, explain to the student why his/her behavior prevented it, but encourage the student to try again for the next checkmark.

Tutoring Session Introduction

Hi! My name is _____, and we're going to work together this year. I'll come a few times a week, and we'll do math activities together.



Display Galaxy Math Rules Poster.

Before we get started, let's talk about some rules. This poster (point to rules poster) **shows you the rules for how to behave when we work together. Look at our first rule** (point)**. It says "Use inside voice." Look at the picture that goes with this rule** (point to first picture)**. Why is this a good picture to remind us about using inside voices?** (*Student.*) **You're right. We'll be working in the** (**library/hallway**)**, so we have to be quiet and use our inside voices. Always use your inside voice. That's our first rule.**

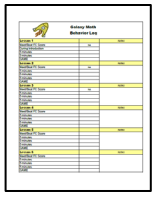
Here's our second rule (point to second rule)**. It says "Stay in seat." Look at the picture that goes with this rule** (point to second picture)**? Why is this a good picture to remind us to stay in our seats?** (*Student.*) **Good Job! The chair reminds us that when we work together, we must stay seated.**

Let's look at the next rule (point)**. This rule says "Follow directions." Why is this a good picture to remind us to follow directions** (point to third picture)**?** (*Student.*) **Yes. The picture reminds us to listen and follow directions. This is a very important rule.**

We have one more rule (point to fourth rule)**. This last rule says "Try hard to answer problems correctly." Look at this picture** (point to fourth picture)**. Do you see the question marks here** (point)**? What do you think this person is doing?** (*Student.*) **Yes, she/he's thinking. She/He's trying really hard to answer math problems correctly. That's our last rule. When we work together you must try your hardest to answer math problems correctly. If you follow these rules, we'll have fun and learn a lot about math.**

Display Galaxy Math Sticker Chart.

This is your Galaxy Math Sticker Chart. It has places for stickers (point to spots where stickers go)**. When you earn enough stickers to fill up your chart** (point)**, you get a prize!** (Display prize tub).



Display GM Attendance Log.

We keep track of how many stickers you earn by making checkmarks on this paper. During the lesson, you have lots of chances to earn checkmarks. Each time you earn a checkmark, I make a check right here (point to checkmark column)**. At the end of the lesson, you count up your checks for the day and put that number of stickers on your Galaxy Math Sticker Chart** (point)**.**

If you earn this many checks (pencil in 3 checkmarks for Lesson 1)**, how many stickers do you get?** *(Student.)* **Right, 3.** Erase checkmarks.

For each check, you get one sticker for your Galaxy Math Sticker Chart. And what happens when you have enough stickers to fill up your chart? *(Student.)* **Exactly! You get to pick a prize** (point to prize tub)**.**

I like the way you're following our Galaxy Math rules right now. You're using your inside voice (point to rules on poster)**, staying seated, and following my directions. So, you earn one check!** (Write a check for the student on the Log.)

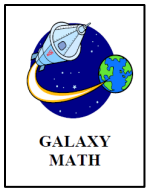
Here's another way you can earn checkmarks. This is a timer. Listen to it beep. (Show student timer and make it beep.) **Whenever my timer beeps, I look to see if you're following the Galaxy Math rules. What are the Galaxy Math rules?** *(Student.)*

That's right. You have to use your inside voice, stay in your seat, follow directions, and try hard to answer problems correctly. When my timer beeps, if you're following our Galaxy Math rules, you get a checkmark. BUT, if you're NOT following our rules, I won't give you a checkmark. So, when the timer beeps, you MUST be following our rules.

The timer will beep every once in a while during our Galaxy Math lessons. Make sure the timer catches you following the Galaxy Math rules the whole time.

Remember, at the end of the lesson, you count the number of checks you earned and put that number of stickers on your Galaxy Math Sticker Chart. Once you fill up your sticker chart, you pick a prize (point to prize tub)**!**

Set timer, without the student noticing, using the guide on the Attendance Log to determine the amount of time. Award check as appropriate. Repeat two times during lesson, following the timer guides on the attendance log.



Point to Rocket Ship Poster.

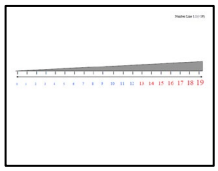
We call our math program Galaxy Math. The word galaxy means outer space. Have you ever seen a picture of a rocket ship (display poster on front of script binder)**?** *(Student.)* **What does a rocket ship look like?** *(Student.)* **Right. A rocket ship is big and shiny. It blasts off to outer space. Here's a picture of a rocket ship** (point)**. Do you think it'd be fun to take a ride in a rocket ship?** *(Student.)* **When astronauts blast off in a rocket ship** (point)**, they go to outer space, where they learn new, important things about far-away places. This year, in Galaxy Math, we're going to aim high, like a rocket ship. We'll work hard to learn lots of new, important things about math. So let's get started on our trip to outer space. Let's blast off into the Math Galaxy!**

ACTIVITY 1: LESSON

Counting Up to 9

Today we'll work on counting, reading numbers, and writing numbers. Let's begin by counting up to 9 out loud together. We'll start with 1. Ready, let's count together. 1,2,3,4,5,6,7,8,9. Great. Now you try it by yourself. (Have student count to 9 one time; correct student errors.)

Counting Up to 9 with Number Line



Display Number Line 1.1 (<19).

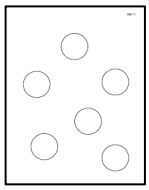
Sometimes when we count, we use a number line. This (point) **is called a number line. It starts at 0** (point) **and goes up to 19** (point)**. What's this called** (point to number line)**?** *(Student.)* **That's right, it's a number line.**

What's this number (point to 0)**?** *(Student.)* **Yes. What does 0 mean?** *(Student.)* **Right. Zero means none. So when you start counting, you start with 1. When you count, what number should you start with?** *(Student.)*

Now let's count to 9 again. This time, we'll use the number line. Place your finger on 1. That's where you start counting. Let's count one number at a time. As you count each number, point to it with your finger. Ready, let's count together. 1,2,3,4,5,6,7,8,9. Nice job. Now you try it by yourself. (Have student count to 9 one time; correct student errors.)

Reading and Writing Numbers

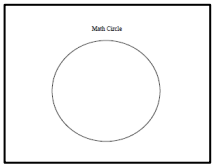
Now let's practice reading numbers. I'll point to a number, and you tell me what number it is. Ready? (Point to 6 on number line; have student name number. Correct student errors.) **Great.** (Repeat with: 2, 9, 4, 7, 5.)



Display GM 1.1.

Now I'll tell you a number, and you write that number on the worksheet. Ready? 6. (Have student write number. Correct student errors.) **Great.** (Repeat with: 1, 9, 3, 7, 8.)

Counting Beans Up to 9



Display beans and Math Circle.

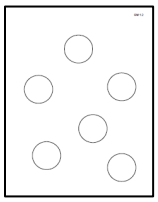
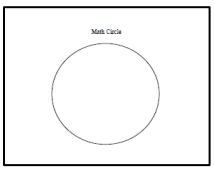
Now we'll use beans to do some counting. First, let me explain some rules. When we use beans, we leave them on the table and touch one bean at a time with our finger. Let me show you. (Put some beans in the Math Circle and demonstrate touching one

bean at a time.) **Now you practice touching one bean at a time with your finger.** *(Student.)* **Great job!**

Now, let's count these beans. (Put 8 beans in the Math Circle.) **As you count, touch each bean, one at a time. Touch one bean every time you say a new number. Don't skip any beans. Now let's count. Start at 1** (touch each bean and count aloud)**: 1,2,3,4,5,6,7,8. How many beans?** *(Student.)* **Right. The number we say last is how many beans we have. There are 8 beans.**

Let's try a few more. Remember, we start counting with the number 1. (Put 3 beans in the Math Circle.) **Count how many beans are here. Ready, let's count together. 1,2,3. How many beans?** *(Student.)* **We have 3 beans. Right. The number we say last is how many beans we have. There are 3 beans.** (Follow the same procedure for 4, 6, and 7.)

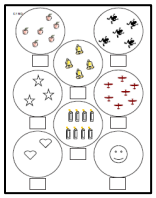
Counting Beans and Writing Number

Display GM 1.2, beans, and Math Circle.

Now, this time, let's practice writing numbers. After you count, write that number of beans. Watch. I count how many beans I have. Then, I write that number. (Put 8 beans in the Math Circle; demonstrate counting.) **1,2,3,4,5,6,7,8. I have 8 beans. Now I write the number 8 on the paper.** (Write **"**8".) **Your turn. Count how many beans you have. Then write that number.** (Repeat with 9, 4, 5, 7, and 2.)

Counting Pictures and Writing Number



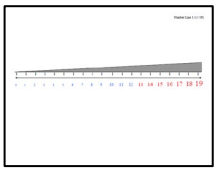
Display GM 1.3.

Let's keep counting, but now instead of beans, let's count objects in a picture. (Point to frogs.) **When we see objects in a picture, we still have to make sure we count each object. We do that by touching each object in the picture. Touch one object each time you say a new number. Don't forget to count any. In this picture, the objects are frogs. Let's count the frogs in this picture together:** (touch each object as you count) **1,2,3,4,5. How many frogs?** *(Student.)* **Right. There are 5 frogs. Now I write that number. I have 5 frogs, so I write the number 5.** (Write **"**5" on line.)

Now it's your turn. Count how many objects are in this picture (point to the apples)**. Make sure to touch one object for each number you count. The last number you say tells you how many. Write that number.** (Repeat with 4 bells, 7 airplanes and remaining

examples. If the student has difficulty, have the student cross out an object each time she/he says a number to keep track of which objects she/he's counted. Gradually, fade the crossing out.)

Showing Numbers <10 on Hands



Display Number Line 1.1 (<19).

Now let's use our fingers to show how many. I'll show you how. First I point to the number (point to 2 on the number line)**. Now I show you how many with my fingers** (demonstrate counting 1, 2 one finger at a time)**. Now you try. I'll point to a number. You say the number and show me how many with your fingers** (point to 4, 9, 1)**.**

(Point to 0 on the number line.) **For the number zero, we hold up a fist** (demonstrate) **but no fingers. Why?** *(Student.)* **That's right. Zero means none. So, we hold up no fingers. We hold up a fist like this.** (Demonstrate.)

Let's keep practicing (practice with 3, 7, 5, and 0)**.**

Wrap Up/Sticker

If student has earned checks:
Let's count the number of checks you earned today and put the stickers on your Galaxy Math Sticker Chart. Remember, once you have enough stickers to fill up your chart, you pick a prize! (Award appropriate number of stickers, and a prize if sticker chart is filled.)

If student has not earned any checks:
You did not earn checks today, but tomorrow, you'll have another chance to earn checks and stickers. When my timer beeps, if you're following our Galaxy Math rules, you get a checkmark. At the end of the lesson you will get a sticker for every checkmark you earned.

When you've earned enough stickers to fill up your chart (point)**, you get to choose a prize from my tub** (point)**. So try your hardest to follow our Galaxy Math rules tomorrow!**