**Sphero Play- Lesson & Introduction 1**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Partner/s: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Activity #1: Distance & Speed**

**What to do:**

1. Tap the + button at the bottom to create a new macro.
2. Where it says Macro Name, call type **speed and time**. Click Create Macro.
3. Add a command by tapping the + button at the bottom right.
4. Tap on Roll, the first command in the list.
5. Change the Speed to 20 and the Delay to 3000 (3 seconds). Leave the Heading at zero. Click the Create button up top.
6. Add in the **Stop**. This will stop Sphero from rolling immediately.
7. You’ve now written your first program! It tells Sphero to move at 20% speed for 3000 milliseconds, which means 3 seconds, and then stop. You will see a Roll command and a Stop Command. Click the Play button on the bottom.
8. The Sphero will roll slowly for 3 seconds and should stop.

Now, let’s do the experiment! Follow these steps:

1. On the device, tap **Play**. The ball will roll for 3 seconds. (If it doesn’t roll the path that you want, you can “**aim**”Sphero again to be more accurate.)
2. With your tape measure, measure how far it traveled. Write the answer on your worksheet.
3. Now tap on the Roll line and change the delay to 6000 (6 seconds). Tap speed and time when you are done.
4. Put Sphero back on the tape and tap Play on the device. Measure the distance and write it on your worksheet.
5. Do this one more time with a delay of 9000 (9 seconds). Measure the distance and write it on your worksheet.

**Activity #2: Polygons & Angles**

1. Tap the + button at the bottom to create a new macro.
2. Where it says Macro Name, call it **my shapes**. Click Create Macro.
3. Add a command by tapping the + button at the bottom.
4. For the fun of it, let’s make every side of the shape light up as a **new color**. So tap on colour options (which stands for “Red, Green, Blue”), the third command in the list.
5. Leave the Delay at 200. Click Create.
6. Now let’s add a Roll to create the first side of the shape. Tap on Add to add a new command. Tap on Roll, the first command in the list.
7. Set the Speed to 20 and the Delay to 2000 (2 seconds). Click the Create button up top.

8. Tap Play. You will see the Sphero turn red and go a short distance.

That’s the first side of our shape. Now, we want the Sphero to glow another color and make a right turn to make the second side etc.. etc..