**Sphero 1st Grade Math**

**MGSE1.OA.6** (Add and subtract within 20)

**E.Q.:** How can we add numbers to 20?

**Objective**: Students will use their SPRK+ to roll to the answer of a math problem. They will solve the problem and then drive the Sphero to the answer of 12 or 16.

**Materials**:

* Large piece of chart paper (about 3 feet) with the numbers 12 written on one end and the number 16 written on the other end
* SPRK+ (1 per group)
* iPad with Lightning Lab app (1 per group)
* Teacher created subtraction and addition cards (attached to this lesson plan)

**Procedures**:

Mini Lesson

1. Model connecting SPRK+ to iPad. Open lightning Lab app, and hold SPRK+ against iPad until the robot turns solid blue, and the iPad shows it is connected.
2. Model using a roll command and changing the variables. Remind students that time and speed affect distance!
3. Show a math Task Card, and explain that they must first solve the math problem, then drive the Sphero to the correct answer.

Group Task

1. The Sphero and the math task cards are in the middle of the chart paper. Students will take turns flipping a card, solving the problem and driving the Sphero to the answer.
2. If the student does not get the correct answer he/she has to put the card at the bottom of the stack.
3. Students will get to keep the card if they get the answer correct.

Conclusion

1. Ask for students to count the number of cards they have at the end of the game. The student with the most cards is the winner.

**Assessment**

Informal Observations will be recorded by the teacher

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| --- | --- | --- |
| 9 + 3 = | 8 + 8 = | |
| 11 + 1 = | 10 + 6 = | |
| 8 + 4 = | 14 + 2 = | |
| 6 + 6 = | 4 + 12 = | |
| 5 + 7 = | 1 + 15 = | |
| 10 -5 = | | 14 -7 = | |
| 12 – 7 = | | 19 – 12 = | |
| 8 – 3 = | | 9 – 2 = | |
| 14 – 9 = | | 11- 4 = | |
| 9 -4 = | | 10 -3 = | |