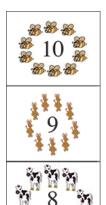
Number Line Activities

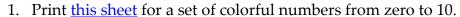
The Number Line Mat is Not Just for Counting



The <u>Number Line Mat</u> has 11 boxes with numbers from 0 to 10, spaced for <u>Bee-Bot</u> and <u>Blue-Bot</u> to explore. The colorful animal images make learning fun.

This mat offers great practice for counting for young learners. The Bot can travel forward and backward with no turns required, which can sometimes confuse beginning coders. However, more math fun awaits these young coders! Here are some ideas to explore with students, who take turns during each activity.

Number Identification



- 2. Have a student pick one of the numbers.
- 3. Place Bee-Bot on 0, at the beginning of the Number Line Mat.
- 4. Have the student send Bee-Bot to the number they drew on the Number Line Mat.

Counting

- 1. Create groups of different number of small objects: paper clips, Lego bricks, beans, counters, etc.
- 2. Have a student count the number of objects in the group.
- 3. Place Bee-Bot on 0 on the Number Line Mat
- 4. Then have the student send Bee-Bot to the number they counted.
- 5. Other students in the group can make sure that the student counted correctly.

Addition and Subtraction

- 1. Have a student roll a die and move Bee-Bot (or Blue-Bot) to that number.
- 2. Then have them roll the die again.



If Bee-Bot can go forward that number of spaces, it should do that. However, if there aren't enough numbers to go in that direction, the student should send the Bot backwards the number of steps shown on the die. For example:



First roll = 5 Bee-Bot would go forward 5 steps and land on 5. Second roll = 3 Bee-Bot would go forward 3 more steps and land on 8.

0

First roll = 6 Bee-Bot would go forward 6 more steps and land on 6. Second roll = 5 Bee-Bot would back up 5 steps and land on 1.

Second roll = 5 Bee-Bot would back up 5 steps and land on 1.

You can also use this mat in the Bee-Bot Online Emulator, which has two dice to roll.



Multiplication

How can you use the Number Line Mat to teach multiplication?

- 1. Place Bee-Bot on **0** on the Number Line Mat.
- 2. Ask a student to press the forward button two times and then press **GO**.
- 3. Bee-Bot moves forward to **2** on the Number Line Mat.
- 4. Now have the student press **GO** again (without first pressing CLEAR!).
- 5. Bee-Bot moves to 4.
- 6. Press **GO** again.
- 7. Bee-Bot moves to **6**.

Can your students see how pressing **GO** multiple times sends Bee-Bot forward 2 steps each time? This builds a foundation of understanding multiplication. $2 \times 2 = 4$, $2 \times 3 = 6$

Try other numbers to explore multiplication.

FFFGO, GO, GO takes you to 9.
$$-$$
 3 x 3 = 9

FFFFGO, GO takes you to 8.
$$-4 \times 2 = 8$$

For more lesson ideas, visit the <u>Number Line Mat</u> page in Terrapin Resources.

