# Meet Your Robot Activity Series- Teacher Notes

**Setting the Stage:**
This Activity Series is designed to introduce students to the 123 Robot in an intentional way, and is based on the Meet Your Robot STEM Lab Unit. The Meet Your Robot PDF Storybook sets the stage for students as they learn what a robot is, what the 123 Robot can do, and how they will use it in the classroom. The Activities that follow build on this introduction to give students a structured way to learn about the Touch buttons and features of the robot, as well as how to work together with the 123 Robot successfully.

**Note:** The Meet Your Robot PDF Storybook can be viewed in a variety of ways to best meet the needs of your students. You can project it, print a large copy for a class read aloud, or print smaller copies for individual student use.

Before your students begin working on the Activities, share the Meet Your Robot story with them.

Scan the QR Code to the left, or use this link to view the Meet Your Robot PDF Storybook.

As you read the story to your students, use the 123 Robot for demonstration, and engage students in conversation throughout the story about their ideas and observations.

Remind students that after the story, everyone will get a chance to touch the 123 Robot and press the buttons to make it move. During the story, their job is to look, listen, and take turns, so you know that they are ready to use the robots.

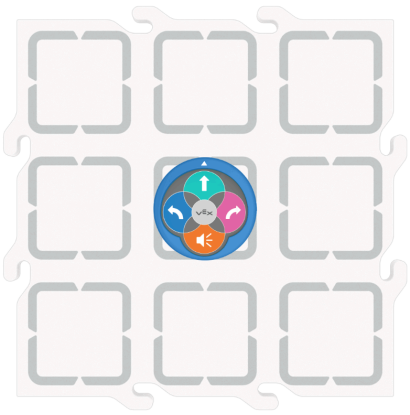
**Use the following prompts to guide your interactive story time:**

- What do you hear when I wake up the 123 Robot? Listen carefully!
- What do you think the Eye Sensor can see in our classroom?
- What are some symbols that tell you behaviors to do? For example, a Stop sign or a green traffic light.
- How might we take turns with our 123 Robots? Practice passing a robot around the circle and highlighting positive look and pass behaviors.
- What do you think will happen when I press the buttons on the 123 Robot? Let's look and listen together – what do you see and hear?
- What do you hear when I shake the 123 Robot? Listen carefully! What does that sound mean?

**Setting up the Activities:** The Activities build on what students heard in the Meet Your Robot story, so that they can begin to make sense of how to use the 123 Robot effectively in the classroom. Both Activities can be completed as a whole class lesson. In the **Finding Features** Activity, students will create their own Features Chart to explain what each button and feature on the 123 Robot is for. These are a great resource to keep available as students work on subsequent lessons with the 123 Robot. In the **Robot Rules** Activity, you and your students collaboratively create a set of Robot Rules to establish clear expectations for how to successfully work with the 123 Robots in the classroom.

**Making the Activities Your Own:**
These Activities are editable Google docs, so you can easily change them to best meet your students' needs. See the following articles for more information about editing Google docs for your own classroom use with Google drive or with Microsoft Office.

**Setting up the for the Activities:**
Prior to beginning the Activities, be sure that each group has access to the following materials:



**Materials needed for each group:**
- Chart Paper or the Features Chart printable (included with the Finding Features Activity)
- Robot Rules - individual copies or one for the class to see (included with the Robot Rules Activity)
- Pencils or markers/coloring materials
- Charged 123 Robot
- A 123 Tile

**Have groups test each robot feature using the setup shown to the left. The 123 Robot should be run on the 123 Tile, to give students a clear 'robot space' to work with.**

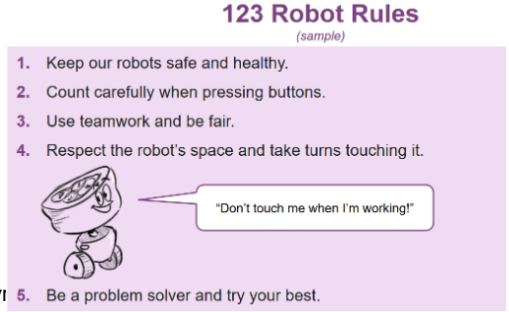
**Optional classroom setup:**
- Display the 123 Poster in the classroom, for reference while students are completing their Features Charts.

**Teacher Tips:**
- **For a guided demonstration** - Have each group create their own Features Chart, but work through testing and documenting each feature together as a class. This can be helpful to establish a process for identifying each feature, like the one shown here, with students. Refer to the poster for terminology or names of Touch buttons as needed.


- **For a simpler setup** - Create one Features Chart for the whole class on the board or with chart paper. Have students test each of the buttons but you can agree on how to document them together as a class, and have one student (or you) write on the chart.

- **Encourage spatial language -** Positively reinforce students using precise descriptive language, names of robot features, like the Touch buttons, and spatial language to describe behaviors while you are completing the Activities.

- **For collaborative Robot Rules** - You can complete the **Robot Rules** Activity as a whole class lesson. Students can brainstorm ideas in their groups, then share them as a lead in to the Activity.
    - You can distribute the list of Robot Rules to groups if desired. It is provided with the Robot Rules Activity.



    - Keep rules as simple as possible, to help students be successful remembering and following them.
    - Once completed, be sure the rules are posted in a place where they can be easily seen during future lessons.

- **For getting started making Robot Rules -** Ask students what they remember about what the 123 Robot likes or dislikes from the Meet Your Robot story. Use those as a jumping off point for robot rules.
    - For example:
        - What is a rule in our classroom that helps us to be treated in a way that we like? What is something that the robot likes that might help us make a good rule?
        - What is something the robot does not like that might help us make a good rule?

- **For practicing Robot Rules -** Have students explain and/or role play what each rule means, how they would follow it, and what would be an example of breaking the rule. You can do this as a whole class activity, or have each group choose one rule to role play and explain to the class.

- **For extra engagement -** Once students have created their charts, have them try to code simple two step sequences of robot behaviors, like drive forward 2 steps, or turn left then turn right, or drive forward then play a sound.

**Additional Standards That Can Be Reached with this Activity Series:**

- CSTA 1A-CS-02: Use appropriate terminology in identifying and describing the function of common physical components of computing systems (hardware).

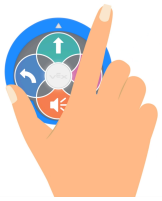
- CCSS.MATH.CONTENT.K.G.A.1: Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.

# VEX 123 Activity

# Finding Features

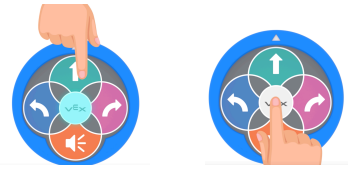
## Play

**Make a chart with each of the features of the 123 Robot.**



Push your 123 Robot to wake it up.

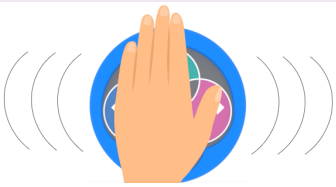
Look at the button. What do you think it will make the 123 Robot do?



Press , then press . Watch what the 123 Robot does.

| 123 Robot Features Chart | | |
|---|---|---|
| Draw | Name | Write |
| | Drive | Drives forward 1 step |

Draw or write about the feature on your chart.



Shake the 123 Robot to erase it.
Then, repeat the steps for the next feature.

## Challenge

**Compare and contrast**

Compare your Features Chart to another group's. How are they similar? How are they different?

**How many features can you find?**

Keep adding to your chart! Think, test, and write about as many features as you can on the 123 Robot.

Names: _____

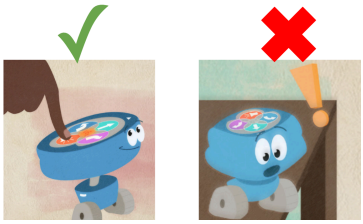
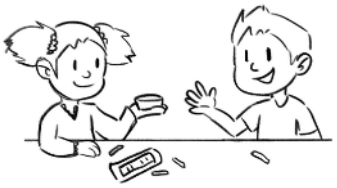
| 123 Robot Features Chart | | |
|---|---|---|
| **Draw** | **Name** | **Write** |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

VEX 123 Activity

# Robot Rules

## Play

**Create Robot Rules to help you learn with the 123 Robots in your classroom.**

| | |
|---|---|
|  | What does the 123 Robot like? What does it not like? Share what you remember from the Meet Your Robot story. |
|  | Read or listen to the first rule on the list. Share 1 thing you think follows the rule. |
|  | Share 1 thing that would break the rule. |
|  | Vote on whether you think you should keep the rule, or change it to make it better.<br><br>Repeat the steps for each rule on the list. |

## Challenge

| Role Play | What if? |
|---|---|
| What if someone was grabbing, not taking turns, and being rough with the 123 Robot? Act out how you could help them better follow the Robot Rules. | Think about something you want to try with your 123 Robot. Does it follow the Robot Rules? If it does, can you test it out? What happens? |

## Get started with this Robot Rules list.

1. Keep our robots safe and healthy.
2. Count carefully when pressing buttons.
3. Use teamwork and be fair.
4. Respect the robot's space and take turns touching it.


5. Be a problem solver and try your best.

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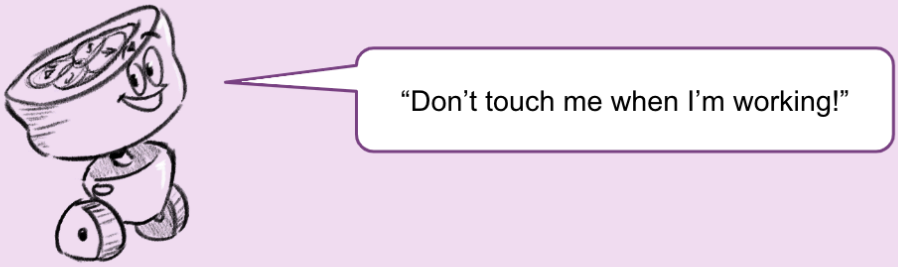


5. Be a problem solver and try your best.