

Get Started Teaching with VEX 123

9 Week Scope and Sequence for Social Emotional Learning (SEL)

This Scope and Sequence is designed to offer a pathway to using the 123 Robot to reinforce social-emotional learning (SEL) skills and concepts in your classroom.

Lessons use Touch buttons or the Coder and Coder cards to complete activities, using commands like the 'Act' cards. All Activities could also be adapted to use VEXcode 123, if needed based on the interests and development of your students.

Each week gives guidance for what teachers can do before, during, and after class in order to learn the basics of using the 123 Robot and teaching with VEX 123 curricular resources.



Scope and Sequence for SEL At a Glance

Week	Lesson	Description
1	Meet Your Robot STEM Lab Unit: Lab 1 Hello, 123!	Introduce your students to VEX 123 using the Meet Your Robot PDF Storybook. Learn about how to use the Touch buttons to code the robot.
2	Meet Your Robot STEM Lab Unit: Lab 2 Robot Rules	Build on what you learned about how to use the robot in Lab 1, to talk about how to work together with the robot, and develop and practice 'Robot Rules' with your class.
3	Gnome in the Forest Activity Series: Reach That Leaf Activity	Use the Art Ring and code the robot to act out kind acts that Gnomie helps friends complete. Use craft materials to construct a rescue device to lift a rock and save the bunny.
4	Gnome in the Forest Activity Series: Picnic Party! Activity	Travel to another part of the forest, and use craft materials to construct a ladder to help fetch a leaf for a friend.
5	Gnome in the Forest Activity Series: Help Baby Bunny Activity	Create a surprise party in honor of acts of kindness and code the robot to bring Gnomie home to celebrate!
6	Role Play Robot STEM Lab Unit: Lab 1 Act Happy	Test out the 'Act' Coder cards to see how the 123 Robot acts out simple feelings. Then build your own emotion code to make the robot act out other feelings. Talk about how behavior connects to feelings.
7	Role Play Robot STEM Lab Unit: Lab 2 Match the Feeling	Use the emotion codes you made in Lab 1, or create a new one, to make the 123 Robot act out a feeling from a story prompt. Talk about how different people can express an emotion in different ways, or feel differently about the same situation.
8	Calm Down Robot STEM Lab Unit: Lab 1 Rowdy Robots	Code your 123 Robot to show opposite feelings, from excited to calm, to talk about the connection between behavior and emotion.
9	Calm Down Robot STEM Lab Unit: Lab 2 Calm Down Code	Create a 'Calm Down Code' for your 123 Robot to help practice strategies for managing strong emotions.

Scope and Sequence for Teachers

Get ready to teach with VEX 123

Before Week 1:

- Follow the steps in the [Best Practices for Using the Classroom App with VEX 123 Article](#) to charge, update, name, label, and pair your 123 Robots and Coders so they are ready for classroom use.
- Read the [Overview of VEX 123 page in Unit 1 of the Educator Certification](#) for an overview of the VEX 123 platform.

Introducing VEX 123 to your class

Week 1		Lesson: Meet Your Robot STEM Lab Unit: Lab 1 Hello, 123!
Before class	During class	After class
• Watch the Touch to Code video in Unit 2 of the Educator Certification to learn how to code the 123 Robot using the Touch buttons. • Print a copy of the Meet Your Robot PDF Storybook or plan how you will project the story in class. • Read the Implementing VEX 123 STEM Labs Article to learn about how STEM Lab Units are organized. • Read this article to learn about teaching with the Meet Your Robot book • Send the Meet Your Robot Letter Home to families	• Lab 1: Hello, 123! ◦ Engage - Read the story and use the Teacher's Guide for interactive prompts ◦ Play - Create features charts with students to learn about the Touch buttons on the 123 Robot	• Put Meet Your Robot book into your classroom library or VEX 123 Learning Center • Hang students' features charts on a VEX 123 bulletin board to show their learning • Use the prompts in the Share sections of the Meet Your Robot STEM Lab 1 for journal or meeting time discussions to continue robotics conversations.

Develop robot rules with your class

Week 2	Lesson: Meet Your Robot STEM Lab Unit: Lab 2 Robot Rules	
Before class	During class	After class
- Read the Establishing Routines page of the Educator Certification in preparation for making Robot Rules. - Read the VEX Library article Incorporating VEX 123 into your Social Emotional Curriculum.	Lab 2: Robot Rules Engage - Talk about what will help you be successful with the robots in your class Play - Create Robot Rules with students, then practice the Robot Rules by role playing with different scenarios.	- Give student certificates for completing the Meet Your Robot Unit - Hang up your Robot Rules in your classroom. Have students create their own 'posters' explaining the rules in their own words to reinforce their learning. - Use the prompts in the Share sections of the Meet Your Robot STEM Lab 2 for journal or meeting time discussions to continue robotics conversations.

Introduce the Gnome in the Forest story and talk about acts of kindness

Week 3	Lesson: Gnome in the Forest Activity Series - Help Baby Bunny	
Before class	During class	After class
- Read the Implementing VEX 123 Activity Series article to learn about the structure of an Activity Series and how to teach with it. - Print the Setting Elements and Characters and set up your Fields as shown in the Setting Up the Field section of the Teacher Notes. - Read the Using the 123 Art Ring Article to learn how students could use the Art Ring to create various attachments. - Gather craft materials or print the Art Canvas for students to construct a rock pushing tool and decorate their robots. - Send the VEX 123 General Letter Home to families	- Share the Gnome in the Forest story with students. - Talk about acts of kindness students do for their friends and family, and how others show kindness to them. - Show students how to use the Art Ring to create a rock pusher. - Facilitate students' small group completion of the Help Baby Bunny Activity. - Use the Challenges on the Activity sheet for extensions/ differentiation. For added SEL practice: - Create an Acts of Kindness jar! Brainstorm acts of kindness students could do during the school day and put them in a jar. For a brain break, choose one randomly and have the class complete it. - Practice turn taking by having students alternate pressing the buttons and starting the project.	- Take photos of students' robots to 'save' their Art Ring creations, then deconstruct them and save the materials for a future class. - Save your Fields for use in the next week. - Have students share their Art Ring creations and talk about how it was helpful to the baby bunny. - Journal or discuss how students can use things they are good at to be helpful to others.

Continue the Gnome in the Forest story and talk about what makes people good friends

Week 4	Lesson: Gnome in the Forest Activity Series - Reach That Leaf	
Before class	During class	After class
• Print the Small Touch Buttons and/or the Touch and Motion Planning Sheet for students to use to plan and save their projects. • Have the Setting Elements and Characters ready on the Fields, and craft materials ready for students to create a ladder attachment for their Art Ring. • Review the Teacher Tips section of the Activity Series for extensions or added details.	• Review the Gnome in the Forest story with students. ◦ Talk about what makes someone a good friend. How is Gnomie showing those traits? How do students show those traits to others? ◦ Remind students how to use the Art Ring to create a ladder. • Facilitate students' small group completion of the Reach That Leaf Activity. ◦ Use the Challenges on the Activity sheet for extensions/ differentiation. • For extra SEL practice: ◦ Draw or write about someone students think is a good friend and why. ◦ Role play scenarios with students of someone being a good friend or not. Help them learn ways to correct someone in a kind way.	• Take photos of students' robots to 'save' their Art Ring creations, then deconstruct them and save the materials for a future class. • Save your Fields for use in the next week. • Have students share their Art Ring creations and talk about how it was helpful to the deer. • Journal or discuss how students show someone that they want to be friends.

Complete the Gnome in the Forest story and talk about gratitude and ways to show thanks

Week 5	Lesson: Gnome in the Forest Activity Series - Picnic Party!	
Before class	During class	After class
- Have the Small Touch Buttons and/or the Touch and Motion Planning Sheet ready for students to use to plan and save their projects. - Have the Setting Elements and Characters ready on the Fields, and craft materials ready for students to decorate the Field for a party for Gnomie! - Optional: Read the Customizing Resources Article for Google drive or Microsoft Office to learn about how to adapt Activities for your needs in the future.	- Review the Gnome in the Forest story with students. - Talk about why the animals are planning and preparing a surprise for Gnomie. Discuss what 'gratitude' means and talk about why throwing a surprise party is a kind way to show gratitude for Gnomie. - Talk about big and small ways that students show gratitude to others, and ways that others have shown thanks to them. - Facilitate students' small group completion of the Picnic Party! Activity. - Use the Challenges on the Activity sheet for extensions/ differentiation. For extra SEL practice: - Have students write about ways to show and practice gratitude. - Have a discussion about what it feels like to express gratitude, and to receive thanks from others.	- Take photos of students' Fields and robots to 'save' their picnic parties, then deconstruct them and save the materials for a future class. - Have students share their party creations and talk about how they think Gnomie felt upon realizing what the forest friends had done. - Journal or discuss how students practice gratitude with others, and how expressing thanks is an act of kindness.

Connect behavior to emotions by creating emotion codes with the 123 Robot

Week 6	Lesson: Role Play Robot STEM Lab Unit: Lab 1 Act Happy	
Before class	During class	After class
• Watch the Use Coder cards to Code video from Unit 3 of the Educator Certification to learn about how to code the 123 Robot with the Coder and Coder cards. • Read the Using the Coder as a Teaching Tool Article to learn strategies for teaching with the Coder. • Read the Play section of the Lab to see the Activity is broken down for instruction. • Read the Facilitation Strategies at the end of the Engage page for considerations for teaching. • Organize Coder cards as shown in the Environment Setup section of the Summary • Send the Role Play Robot Letter Home to families • Print the Blank Coder Worksheet for students to use to plan and save their projects.	• Lab 1: Act Happy ◦ Engage - Introduce the idea of expressing emotions through behaviors, and connect it to 'acting out' a feeling for the robot. ◦ Play - First, test out the 'Act' cards to see how the 123 Robot acts out those feelings. Then, make your own emotion code to act out a different feeling. • For added SEL practice: ◦ Have all students code the same emotion, and talk about how/why their projects are different from one another, as we all express emotions in different ways.	• Collect Coder cards and save them for the next class. • Hang students' completed project plan worksheets on a VEX 123 bulletin board to show their learning

Code the 123 Robot to act out a feeling from a story

Week 7	Lesson: Role Play Robot STEM Lab Unit: Lab 2: Match the Feeling	
Before class	During class	After class
• Read the Play section of the Lab to see the Activity is broken down for instruction. • Read the Facilitation Strategies at the end of the Engage page for considerations for teaching. • Organize Coder cards as shown in the Environment Setup section of the Summary for how to set up the Lab activity. • Print the Blank Coder Worksheet for students to use to plan and save their projects.	• Lab 2: Match the Feeling ◦ Engage - Introduce the question of how we know what others are feeling, and the idea that we could use the emotion codes from Lab 1 and the 123 robots to practice figuring out others' feelings. ◦ Play -Students will code the 123 Robot to match a feeling from a story, then create their own stories and emotion codes to match. • For added SEL practice: ◦ Choose other familiar classroom stories, and have students create emotion codes based on them. ◦ Give students real-life scenarios of things during the school day that may cause strong emotions, and have students create emotion codes.	• Add students' emotion code stories to your classroom library. • Display photos or videos of students sharing their stories and explanations about their emotion codes. • Give students Certificates for completing the Role Play Robot STEM Lab Unit.

Code your 123 Robot to show opposite feelings

Week 8	Lesson: Calm Down Robot STEM Lab Unit: Lab 1 Rowdy Robots	
Before class	During class	After class
• Watch the Teaching with the Coder in Your Classroom video from Unit 3 of the Educator Certification to learn about using the Coder as a teaching tool. • Read the Play section of the Lab to see how the Activity is broken down for instruction. • Read the Facilitation Strategies at the end of the Engage page for considerations for teaching. • Organize Coder cards as shown in the Environment Setup section of the Summary • Send the Calm Down Robot Letter home to families • Print the Blank Coder Worksheet for students to use to plan and save their projects.	• Lab 1 Rowdy Robots ◦ Engage - Introduce the idea of feeling big emotions by showing the students how the robot acts when it is out of control. Discuss coding the robot to show a big emotion, like excitement. ◦ Play -Students will code the 123 Robot to act in an out of control manner, and then code the robot to behave in an in-control way. • For added SEL practice: ◦ Have students brainstorm things that cause them big emotions throughout the school day, and code their robots to act them out.	• Make a bulletin board using the Coder worksheets students created in Lab 1. Hang their Play Part 1 Coder sheets on one side of the bulletin board, and their Play Part 2 Coder sheets on the other side, to show the contrast between out-of-control and in control.

Create a 'Calm Down Code' for your 123 Robot

Week 9	Lesson: Calm Down Robot STEM Lab Unit: Lab 2 Calm Down Code	
Before class	During class	After class
• Watch the Computer Science Fundamentals video from Unit 6 of the Educator Certification to learn about the foundational concepts you are teaching with VEX 123. • Read the Play section of the Lab to see the Activity is broken down for instruction. • Read the Facilitation Strategies at the end of the Engage page for considerations for teaching. • Organize Coder cards as shown in the Environment Setup section of the Summary for how to set up the Lab activity. • Print the Blank Coder Worksheet for students to use to plan and save their projects.	• Lab 2 Calm Down Code ◦ Engage - Brainstorm strategies students can use to calm down when they are feeling strong emotions, and break down those strategies into individual actions with the students. ◦ Play - Students will code their robot to act out strategies for calming down, or "Calm Down Codes". • For added SEL practice: ◦ Have students share their Calm Down codes with their classmates, and practice acting them out together. ◦ Choose SEL activities from the Unit Choice Board	• Have students write or draw about their Calm Down Codes. Create a bulletin board of Calm Down Codes students can refer to when they are feeling strong emotions. Display students' Coder Worksheets beside their writing and drawings.