

The Pacing guide for each STEM Lab provides step-by-step instructions on What, How and When to teach. The Individual STEM Lab Pacing guide contains valuable information below:

- **Pacing** - Provides the approximate time duration of each section of the STEM Lab.
- **Concepts** - Lists the themes that surround the STEM Lab.
- **Delivery** - Provides guidance on teaching strategies for each STEM Lab section to improve student mastery of the content.
- **Materials** - Lists the materials that are essential to completing the STEM Lab.
- **Resources** - Provides the linked content and resources needed by the teacher to complete the lessons and activities.

Section	Pacing	Concepts	Delivery	Materials	Resources
Seek	Building the Clawbot: 60 mins. Exploration Discussion: 5 mins. (Optional) What You'll Need to Know: 5 - 45 minutes	• Building and Exploring the Clawbot • Prerequisites: (Drive Forward and Reverse, Turning Right and Left)	Student Centered Cooperative Learning	• 1 or more VEX IQ Super Kits • Engineering Notebook	Build Instructions Build Rubric Collaboration Rubric Engineering Notebook Rubric (Individual Reflections)
Play	Range of	• Programming-(Programming	Teacher Direct	• Content Pages	

	Motion: 5 minutes Programming a Sequence - VEXcode IQ: 40 mins.	the Claw, Programming the Robot Arm) • Programming Sequences of Robot Behavior • Range of Motion	Instruction Student Centered	• VEX IQ Clawbot with Charged Battery • VEXcode IQ • Aluminum can or empty water bottle	
Apply	Warehouse Robots: 5 mins. Game Strategy: 5 mins.	• Robots in the workplace • Robotic Precision • Project Planning	Student Centered Cooperative Learning	• Content Pages	
Rethink	Prepare for the Package Dash Challenge: 30 mins. Design, Develop, and Iterate on your Project: 45 mins.	• Pseudocode • Programming the Robot • Flexibility and Adaptability • Iteration on Improving a Project	Student Centered Cooperative Learning	• Content Pages • VEX IQ Clawbot with Charged Battery • VEXcode IQ • 1.22 x 2.44 m (4 x 8 feet), a VEX IQ Challenge Field, or open area	Pseudocode Rubric Programming Rubric Collaboration Rubric Engineering Notebook Rubric (Team Reflections)

	The Package Dash Challenge: 30 mins.				• Roll of tape • 3 aluminum cans • Stopwatch • Rulers or Yardsticks • Engineering Notebook
Know	Comprehension Questions: 5 mins	Summative Assessment	Student Centered	• Multiple Choice Questions	Know Questions Know Questions Answer Key