





## OVERVIEW

Students learn about how to type the special symbols required for JS and use Javascript on pixelbot.io to solve problems.



### OBJECTIVES

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1. Students will learn to identify syntax errors
2. Students will learn how to input special characters on the computer
3. Students will continue to develop proficiency in writing and reading code.



### AGENDA

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**Length: 45 minutes**

1. Unplugged Warm-up (5 minutes)
2. Start Coding
3. Pair Idea Exchange
4. Continue Coding



### VOCAB

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syntax error - An error from typing the JS language incorrectly



### MATERIALS

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1. [Lesson 7 | Worksheet 1](#)
2. [Lesson 7 | Exit Ticket Worksheet](#)
3. Scratch paper grids
4. Small turtle cutout for each student
5. Magnetic turtle
6. Scratch paper grids
7. Pencils
8. Whiteboard



## WARM-UP



Length: 5 minutes

Students revisit JS in an unplugged challenge.

Prep: Draw your own pixelbot challenge on the board.

Teacher Actions	Student Actions
<p><b>1</b> Individual Work: Tell students to solve the pixelbot challenge in JavaScript.</p>	<p><b>1</b> Students write down their solutions on scratch paper.</p>
<p><b>2</b> Discuss solutions. Ask students, what would happen if I only added the open parenthesis after the <code>right</code> like <code>right( ?</code></p> <p>Answer: The computer would throw a syntax error and the program would not run.</p>	<p><b>2</b> Students raise their hands to provide answers.</p>



# START CODING



Length: 35 minutes

Students learn how to input special characters on the keyboard and are given a series of images to recreate using pixelbot.

Prep: Distribute [Lesson 7](#) | [Worksheet 1](#)

Teacher Actions	Student Actions
<div><b>1</b> Instructions</div> <div><ol style="list-style-type: none"><li>1. The goal is to recreate the images on pixelbot.io</li><li>2. Ask students, "What are the special symbols you need to call a function?" Answer: parentheses</li><li>3. Show students where the parentheses are located on the computer and remind them that you need to hold down shift to use them.</li><li>4. How many elements (function calls) should be on</li></ol></div>	<div><b>1</b> Students turn away from computers and face the teacher.</div>

	<p>each line? How do you go to the new line? Answer: There should be 1 element per line.</p> <ol style="list-style-type: none"><li>5. Show students where the return key is on the keyboard</li><li>6. Show student an example of a syntax error on pixelbot.io. Point out the red 'x' that appears in the editor when you add the error.</li></ol>	
3	<p>When students get stuck, we suggest using the Read, Write, and Debug protocols to support students. Ask students to imagine being on the Coder team from the group activities. They should try to play the roles of the writer and navigator. Then, ask students to imagine being a Bot to understand how the computer reads the code.</p>	





# UNPLUGGED EXIT TICKET



Length: 5 minutes

Students finish a JS worksheet to demonstrate learning

Prep: Distribute [Lesson 7 | Exit Ticket Worksheet](#)

Teacher Actions	Student Actions
<div>1</div> Individual Work: Ask students to solve the exit ticket.	<div>1</div> Students complete the exit ticket to the best of their abilities.