

ozobot®

2nd Grade Pacing Guide



Overview

The **Elementary Vertical Pacing** is a simplified guide to the hundreds of free lessons available for you and your students. We created it for two primary purposes:

- A guide for schools and programs that plan on using Ozobot year-over-year with their students and need to pace out concepts and lessons. Coding skills build on one another each year to expose students to new content at increasing levels of complexity.
- A “playlist” of our best lessons, curated for you! This guide is a one-stop-shop for anyone looking to browse our most engaging lessons aligned to each grade-level.

A few notes:

- We have included **Color Codes** as the focus for Kinder, 1st and 2nd grade and **Blockly** as the focus for 3rd, 4th, and 5th grade for the purpose of pacing over several years of instruction with Ozobot. We have spread the introductory lessons for each coding type across two grade levels (Kinder and 1st for Color Codes; 3rd and 4th for Blockly) and provides additional skill-building for each coding type in 2nd (Color Codes) and 5th (Blockly).
- This progression is a suggestion for the purpose of pacing only; we know you know your students best! We believe Kindergartners can access Blockly in the same way we believe 5th graders can be engaged with Color Codes.



Lesson	Objective	Aligned K-2 Standard CSTA
<p>1 Introduction to Color Codes 01: Basic Training</p> <p>✦ This is a review lesson!</p>	<p>Students will be able to demonstrate understanding of powering on/off and calibration.</p> <p>Students will be able to program Ozobot by drawing lines of color code.</p>	<p>CSTA.1A-CS-02:</p> <p>Use appropriate terminology in identifying and describing the function of common physical components of computing systems (hardware).</p>
<p>2 Introduction to Color Codes 05: Skills Check 1 (Grades K-2)</p> <p>✦ This is a review lesson!</p>	<p>Students will be able to apply their understanding of foundational color codes by reading about an intended outcome and programming their Ozobot accordingly.</p>	<p>CSTA 1A-AP-12</p> <p>Develop plans that describe a program's sequence of events, goals, and expected outcomes.</p>
<p>3 Introduction to Color Codes 09: Skills Check 2 (Grades K-2)</p> <p>✦ This is a review lesson!</p>	<p>Students apply the concepts and skills they learned in all lessons to program their bot to complete a challenge.</p>	<p>CSTA.1A-AP-11</p> <p>Decompose (break down) the steps needed to solve a problem into a precise sequence of instructions.</p>
<p>4 Crack the Code</p>	<p>Students will learn to identify non-symmetric and symmetric Color Codes. If a code is non-symmetric, students will draw the code's reversal.</p>	<p>CSTA 1A-AP-12</p> <p>Develop plans that describe a program's sequence of events, goals, and expected outcomes.</p>
<p>5 Skater Safety</p>	<p>Students will apply their analytic skills to identify risks and determine the safest way to navigate their Ozobot through the track.</p>	<p>CSTA 1A-AP-08</p> <p>Model daily processes by creating and following algorithms (steps of step-by-step instructions) to complete tasks.</p>

Lesson	Objective	Aligned K-2 Standard CSTA
6 Pollination Garden	Students will use lines and Color Codes to program the bot to mimic a pollinator.	CSTA.1A-AP-10 Develop programs with sequences and simple loops, to express ideas or address a problem.
7 Zombie Apocalypse	Students will practice programming using color codes and markers to navigate Ozobot through the zombie apocalypse to safety.	CSTA 1A-AP-15 Using correct terminology, describe steps taken and choices made during the iterative process of program development.
8 Bowling With Ozobot	Students will program Ozobot to knock down bowling pins.	CSTA.1A-AP-10 Develop programs with sequences and simple loops, to express ideas or address a problem.
9 Late for School	Students will program a path for Ozobot using Color Code directions and speed. Students will demonstrate the ability to problem solve while considering calculated risks.	CSTA 1A-AP-15 Using correct terminology, describe steps taken and choices made during the iterative process of program development.
10 Telling Time	Students will create a path for Ozobot using Color Codes to travel along the constellation.	CSTA.1A-AP-09: Model the way programs store and manipulate data by using numbers or other symbols to represent information.

Content Integration Options

Color Code Magents	STEAM	ELA	Math	Holiday	Seasonal
CCM Base Kit Lesson 1: Learning About Evo	Modeling Animal Habits	Picking Out Irregular Plural Nouns	What's My Value	Lunar New Year Red Envelope Adventure	Winter Wonderland
CCM Base Kit Lesson 2: Ozobot's New Adventure	Landform Adventure Race	Vowel Addition	Odd or Even Shopping	Black History: Influential People	Snowman Skip Counting
CCM Base Kit Lesson 3: Finding Your Way Around	What's the Object	Random Prefix	Money Mountains	Black History: Katherine Johnson the Human Robot	100th Day of School
CCM Base Kit Lesson 4: Telling a Story	Changes in Matter Match-Up	Random Suffix	Vowel Addition	President's Parade - Abraham Lincoln	OzoSlopes
CCM Base Kit Lesson 5: Which Way Do I Go?	Stargazing with Ozobot: Recreate a Constellation	The Little Old Lady Who Wasn't Afraid of Anything	Bowling for Numbers (2-3)	Who Can Find the Pot of Gold (Color Codes)	Winter Scavenger Hunt
CCM Base Kit Lesson 6: What Happens Next?	Black History: Katherine Johnson the Human	Verb Tenses Mini Lesson		Easter Egg Hunt	Ozobot for President (Beginner)
CCM Base Kit Lesson 7: The Conflict in the Adventure	How to Make Earth Happy			Spooky Patterns	How to Make Earth Happy
CCM Base Kit Lesson 8: More Random Choices	Trash Sorter			The Little Old Lady Who Wasn't Afraid of Anything	
CCM Base Kit Lesson 9: Straight at Intersection				Ozobot Trick or Treat	
CCM Base Kit Lesson 10: Maze Challenge				Dia de los Muertos: Honoring Ancestors	
				Thanksgiving Feast	
				Thanksgiving/ Gratitude Party	
				My Favorite Holiday Dish	
				Dreidel Bot (Hannukah)	

Content Integration Options (continued)

Color Code Magents	STEAM	ELA	Math	Holiday	Seasonal
				<u>Reinbot Landing Practice (Christmas)</u>	
				<u>OzoClaus</u>	