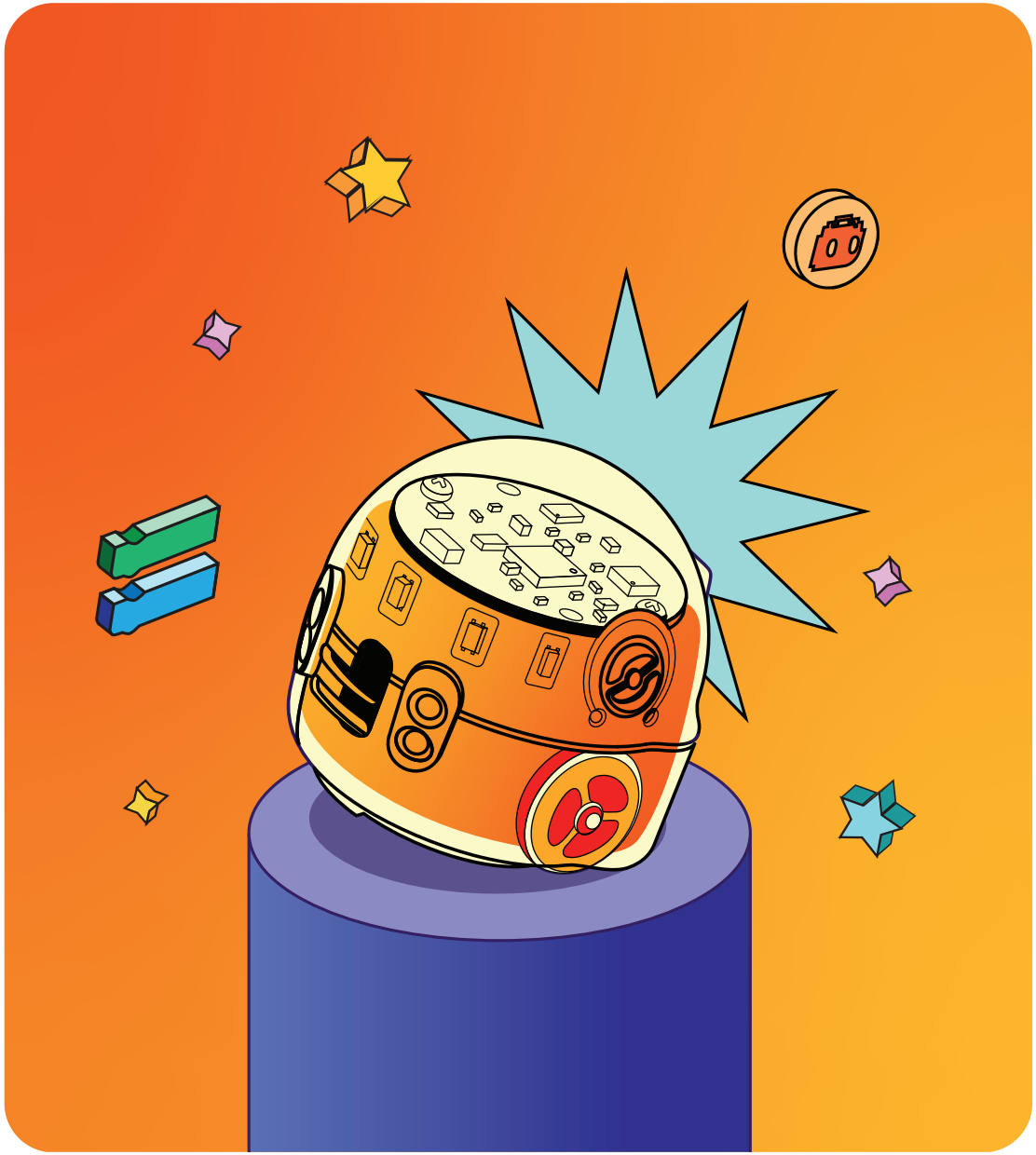
1st Grade Pacing Guide



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
1 Introduction to Color Codes 01: Basic Training ✦ This is a review lesson!	Students will be able to demonstrate understanding of powering on/off and calibration. Students will be able to program Ozobot by drawing lines of color code.	**CSTA.1A-CS-02:** Use appropriate terminology in identifying and describing the function of common physical components of computing systems (hardware).
2 Introduction to Color Codes 05: Skills Check 1 (Grades K-2) ✦ This is a review lesson!	Students will be able to apply their understanding of foundational color codes by reading about an intended outcome and programming their Ozobot accordingly.	**CSTA 1A-AP-12** Develop plans that describe a program's sequence of events, goals, and expected outcomes.
3 Intro to Color Codes 06: Timers	Students learn about timer Color Codes to complete a challenge. Students will be able to draw color codes to program their bot to move at different speeds.	**CSTA.1A-AP-09:** Model the way programs store and manipulate data by using numbers or other symbols to represent information.
4 Introduction to Color Codes 07: Line Switch	Students learn about the line switch Color Codes to complete a challenge.	**CSTA.1A-AP-10** Develop programs with sequences and simple loops, to express ideas or address a problem.
5 Introduction to Color Codes 09: Skills Check 2 (Grades K-2) ✦ Lesson 8 in this series is for 3rd grade and up	Students apply the concepts and skills they learned in all lessons to program their bot to complete a challenge.	**CSTA.1A-AP-11** Decompose (break down) the steps needed to solve a problem into a precise sequence of instructions.

Lesson	Objective	Aligned K-2 Standard CSTA
6 Sequencing My Day	In this lesson, students will be introduced to the concept of a sequence. They will draw, write, and program Ozobot to follow the sequence of their day.	**CSTA 1A-AP-08** Model daily processes by creating and following algorithms (step-by -step instructions) to complete tasks.
7 How to Make Earth Happy	Students will use u-turn, win/exit, and line switching Color Codes to program Ozobot to move through a track where they demonstrate environmental awareness.	**CSTA 1A-AP-12** Develop plans that describe a program's sequence of events, goals, and expected outcomes.
8 The Great Ozo Race	Students will identify speed codes and strategically plan to get the fastest time.	**CSTA.1A-AP-11** Decompose (break down) the steps needed to solve a problem into a precise sequence of instructions.
9 Code for the Gold 50 cm Race	Students will plan and execute a program for Ozobot following a variety of parameters.	**CSTA.1A-AP-11** Decompose (break down) the steps needed to solve a problem into a precise sequence of instructions.
10 Stargazing with Ozobot	Students will create a path for Ozobot using Color Codes to travel along the constellation.	**CSTA 1A-AP-12** Develop plans that describe a program's sequence of events, goals, and expected outcomes.

Content Integration Options

Color Code Magents	STEAM	ELA	Math	Holiday	Seasonal
CCM Base Kit Lesson 1: Learning About Evo	Modeling Animal Habits	Ozobot Acts Out Past, Present, and Future Verb Tense	Ozobot Measurement	Easter Egg Hunt	Winter Wonderland
CCM Base Kit Lesson 2: Ozobot's New Adventure	Clean Energy Cruise	The Little Old Lady Who Wasn't Afraid of Anything	Bowling for Numbers	Ozobot Trick or Treat	Ozobot for President (Beginner)
CCM Base Kit Lesson 3: Finding Your Way Around	Mission to Mars	Write Your Name with Color Codes	Addition Storytime	Thanksgiving/ Gratitude Party	Black History: 2-5 Grade
CCM Base Kit Lesson 4: Telling a Story	How to Make Earth Happy	CVC Words	Spooky Patterns	Reinbot Landing Practice	Snowman Skip Counting
CCM Base Kit Lesson 5: Which Way Do I Go?	Trash Sorter		Hungry, Hungry Ozobot	Hanukkah	100th Day of School
CCM Base Kit Lesson 6: What Happens Next?	Winter Wonderland		Addition and Subtraction	Kwanzaa	How to Make Earth Happy
CCM Base Kit Lesson 7: The Conflict in the			Subtraction Storytime	Lunar New Year	Winter Scavenger Hunt
CCM Base Kit Lesson 8: More Random Choices				Run Turkey Run	
CCM Base Kit Lesson 9: Straight at Intersection				Thanksgiving Feast	
CCM Base Kit Lesson 10: Maze Challenge				My Favorite Holiday Dish	
				Spooky Patterns	