TEACHER GUIDE

Teacher Guide and Pacing

The lesson takes four 45-minute periods. The timings are what the lesson was written to. If you run short, protect the hands-on part in the middle.

Day 1 — What a Program Is

Min	What happens	Print / open
4	Bell ringer: Fruit cup steps	Day 1 bell ringer
11	Slides with the guided notes, Day 1 section	Deck, guided notes packet
25	Activity: Predict the Output. Students read eight short programs and write each exact output, on paper with computers closed.	Day 1 activity sheet
5	Exit ticket	Day 1 exit ticket

Deck: start at slide 1, the lesson cover, then the Day 1 slide.

What students turn in today: the bell ringer, the Predict the Output sheet and the exit ticket.

Day 2 — First Words in the Editor

Min	What happens	Print / open
3	Bell ringer: Which one matches?	Day 2 bell ringer
10	Slides with the guided notes, Day 2 section	Deck, guided notes packet
27	Lab: First Words. Students write three short programs that print lines exactly and explain why each one works, on paper or in CodeGrove.	Day 2 lab sheet, PAPER or ONLINE (ONLINE needs a computer or tablet)
5	Exit ticket	Day 2 exit ticket

Deck: start at slide 13, the Day 2 slide.

What students turn in today: the bell ringer, the First Words sheet and the exit ticket.

PAPER OR ONLINE: PRINT ONE LAB

PAPER: Students write three programs on the sheet and read each one from top to bottom to check it. No computers are needed.
ONLINE: Students play First Words, a level of CodeGrove, our online game, on a computer or tablet. They do each task in the game, then write their code and the Why answer on the sheet.
Both versions have the same tasks, the same points and one key.
On the ONLINE sheet, each question's tag tells students to use CodeGrove or to stay on paper.

Day 3 — Make a Sign

Min	What happens	Print / open
3	Bell ringer: Noor's sign	Day 3 bell ringer
10	Slides with the guided notes, Day 3 section	Deck, guided notes packet
27	Lab: Sign Maker. Students lay out three signs with blank lines, symbols and comments, and explain why each one works, on paper or in CodeGrove.	Day 3 lab sheet, PAPER or ONLINE (ONLINE needs a computer or tablet)
5	Exit ticket	Day 3 exit ticket

Deck: start at slide 23, the Day 3 slide.

What students turn in today: the bell ringer, the Sign Maker sheet and the exit ticket.

PAPER OR ONLINE: PRINT ONE LAB

PAPER: Students write three sign programs on the sheet and read each one from top to bottom to check it. No computers are needed.
ONLINE: Students play Sign Maker, a level of CodeGrove, our online game, on a computer or tablet. They do each task in the game, then write their code and the Why answer on the sheet.
Both versions have the same tasks, the same points and one key.
On the ONLINE sheet, each question's tag tells students to use CodeGrove or to stay on paper.

Day 4 — Quotes and Careful Output

Min	What happens	Print / open
4	Bell ringer: Lunch time	Day 4 bell ringer
8	Slides with the guided notes, Day 4 section	Deck, guided notes packet
12	Applied task: Field Trip Flyer, a short program that prints a flyer, on paper or in CodeGrove	Day 4 activity sheet, PAPER or ONLINE
15	Lesson quiz	Lesson quiz, on paper or a locked Google Form
6	Exit ticket	Day 4 exit ticket

Deck: start at slide 32, the Day 4 slide.

What students turn in today: the bell ringer, the Field Trip Flyer sheet, the guided notes packet, the lesson quiz and the exit ticket.

PAPER OR ONLINE: PRINT ONE ACTIVITY

PAPER: Students write the program on the sheet and read it from top to bottom to check it. No computers are needed.
ONLINE: Students play Field Trip Flyer, a level of CodeGrove, our online game, on a computer or tablet. They do the task in the game, then write their code and the Why answer on the sheet.
Both versions have the same tasks, the same points and one key.
On the ONLINE sheet, each question's tag tells students to use CodeGrove or to stay on paper.

The lesson quiz: 12 points, about 15 minutes. Part A has 8 three-choice questions worth 1 point each. Part B has 2 written questions worth 2 points each. You grade the written answers by hand. Give it after Field Trip Flyer. Collect that sheet first. The key is 06 Answer Keys/1.1_Lesson_Quiz_Answer_Key.pdf.

Use a Form that asks students to read code only on school-managed Chromebooks, with locked mode turned on in the Form's Settings. On every other device, use the paper version.

Day 2: setting up the lab

This lab comes in two versions, and you print only one. Both use the same questions, the same points and the same key. The PAPER version needs only the sheet. The ONLINE version runs in CodeGrove, our online game.

What you need

- PAPER version: the PAPER sheet, 1 per student. Each task, its Example and a `main.py` box are on the sheet.
- ONLINE version: the ONLINE sheet, 1 per student, and a computer or tablet that's already online for each student or each pair. Students type the game link from the sheet. They need no account.

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What to print, and how many

Page	Copies	Note
Guided notes packet (all four days)	1 per student	Print it once, for Day 1
Vocab slip	1 per student	Day 1. Students keep it in their notebook.
Bell ringers, Days 1-4	1 per student per day	Or project it and have students answer on paper
Predict the Output (Day 1)	1 per student	Students write on it. Computers stay closed.
First Words, PAPER (Day 2)	1 per student	Print this or the ONLINE version, not both.
First Words, ONLINE (Day 2)	1 per student	Print this or the PAPER version, not both. Students need a computer or tablet that's already online.
Sign Maker, PAPER (Day 3)	1 per student	Print this or the ONLINE version, not both.
Sign Maker, ONLINE (Day 3)	1 per student	Print this or the PAPER version, not both. Students need a computer or tablet that's already online.
Field Trip Flyer, PAPER (Day 4)	1 per student	Print this or the ONLINE version, not both. Collect it before the quiz.
Field Trip Flyer, ONLINE (Day 4)	1 per student	Print this or the PAPER version, not both. Students need a computer or tablet that's already online. Collect it before the quiz.
Exit tickets, Days 1-4	1 per student per day	At the end of each day
Lesson quiz	1 per student	Day 4

Grading at a glance

Each written question says how many sentences to write, but you grade the idea, not the number of sentences. The keys give a sample answer and what to look for. Give full points when an answer has the sample's idea, in any words, and part of the points when it is partly right.

Piece	Points	How to grade it fast
Bell ringer	2 a day (8 in all)	1 per question. Give it when the answer has the key's idea, in any words.
Guided notes	10-11 a day (42 in all)	1 per blank: 11 on Day 1, 11 on Day 2, 10 on Day 3 and 10 on Day 4. Only the blanks earn points, and the word bank is on the page. Collect the packet at the end of Day 4.
Activity or lab	4-18	Each sheet prints its own points. The sample answers are in 06 Answer Keys/Activity_and_Lab_Keys.pdf.
Exit ticket	3 a day (12 in all)	1 per multiple-choice item, plus the written answer's points
Lesson quiz	12	8 multiple choice, 2 written at 2 points each

What students usually get wrong

Students often believe these six things. Name them out loud before students meet them.

Students think...	Actually...
Python prints the quote marks too.	The quote marks only show where the text starts and stops. `print("Hi")` shows Hi, with no quotes.
A comment prints, because it's part of the program.	Python skips a line that starts with `#`. A comment is a note for the people who read the code.
Python fixes small slips, like a small letter or a missing period.	Python prints exactly what's inside the quotes, letter for letter. A slip in the code shows up in the output.
Two `print()` lines can share one line of output.	Each `print()` starts a new line of output.
An empty `print()` does nothing.	An empty `print()` prints a blank line.
Any quote marks work, even a mixed pair.	The quotes must be a matching pair, both double or both single. Text with an apostrophe goes in double quotes.