

## Unit 1: Programming & Java (2 weeks)

The following curriculum map is a day-by-day listing of the AP Computer Science course in chronological order. Each row represents one day of class, based on a medium-paced class. Readings from the textbook and homework assignments are included on the day when they should be assigned. Refer to the Introduction document for information about how to adjust this pacing for your specific classroom.

- Unit 1 Slides
- Unit 1 Word Bank
- Curriculum Assets

LP	Title	In Class	Reading	Homework
1.01	_Using Eclipse	WS 1.1.1 WS 1.1.2		Explore Pokémon (pokemon.com, console, web site)
1.02	<i>Algorithms &amp; Computational Thinking</i>	PB&J	1.2	Reflect on PB&J assignment Continue exploring Pokémon
1.03	<i>String &amp; Console Output</i>	Practice SC 1.6–9, 1.11–14 LP Welcome	1.3	EX 1.1–5
1.04	<i>Common Errors &amp; Comments</i>	WS 1.4	1.4	EX 1.6–9
1.05	<i>Static Methods &amp; Method Calls</i>	Practice SC 1.22, 1.23, 1.26, 1.29	1.5	EX 1.11, 1.12, 1.14, 1.16
1.06	<i>Static Methods &amp; Method Calls</i>	LP StarFigures LP PikachuChatter		Outline Ch. 1 PP 1.1, 1.3
1.07	<i>Programming Project</i>	PP 1.2, 1.5		Note check (add summaries if needed)
1.08	<i>Finding &amp; Fixing Errors</i>	Fix homework	Review Ch. 1	Submit questions for review
1.09	<i>Review</i>	Review questions WS 1.9 Practice test		Study
1.99	<i>Unit 1 Test</i>	Test 0 Section I Test 0 Section II		
1.XX	<i>Lesson 1.07 Alternative</i>	Ideate and Construct Project		

### 1.01

Lesson 1.01	<i>Using Eclipse</i>
<b>Objectives</b>	Students will be able to open Eclipse, create and save a file in Eclipse, and use Practice.
<b>Assessments</b>	Students will demonstrate Plug-In and Un-Plug procedures for the teacher. Students will log in and submit a sample problem in Practice.

Lesson 1.01	<i>Using Eclipse</i>
<b>In Class</b>	WS 1.1.1 WS 1.1.2
<b>Reading</b>	
<b>Homework</b>	Explore Pokémon (pokemon.com, console, web site)

## 1.02

Lesson 1.02	<i>Algorithms &amp; Computational Thinking</i>
<b>Objectives</b>	Students will be able to define algorithms, programs, hardware, software, and operating systems. Students will be able to describe the relationships between these concepts and components.
<b>Assessments</b>	Students will write sample algorithms, assemble and debug a program that directs the instructor to make a peanut butter & jelly sandwich.
<b>In Class</b>	PB&J
<b>Reading</b>	1.2
<b>Homework</b>	Reflect on PB&J assignment Continue exploring Pokémon

## 1.03

Lesson 1.03	<i>String &amp; Console Output</i>
<b>Objectives</b>	Students will correctly assemble a complete program that uses a class header, body, and main method. Students will correctly use print, println, and escape sequences.
<b>Assessments</b>	Students will create a starter Pokémon program Students will complete several Practice questions.
<b>In Class</b>	Practice SC 1.6–9, 1.11–14 LP Welcome
<b>Reading</b>	1.3
<b>Homework</b>	EX 1.1–5

## 1.04

Lesson 1.04	<i>Common Errors &amp; Comments</i>
<b>Objectives</b>	Students will create simple programs with comments Students will be able to list and apply the steps necessary for avoiding syntax errors.
<b>Assessments</b>	Students will complete a worksheet (WS 1.4). Students will develop a personal check-list for spotting syntax errors.
<b>In Class</b>	WS 1.4
<b>Reading</b>	1.4
<b>Homework</b>	EX 1.6–9

## 1.05

Lesson 1.05	<i>Static Methods &amp; Method Calls</i>
<b>Objectives</b>	Students will use procedural decomposition to plan complex programs using structure diagrams. Students will manage complexity by using method calls.
<b>Assessments</b>	Students will complete Practice problems.
<b>In Class</b>	Practice SC 1.22, 1.23, 1.26, 1.29
<b>Reading</b>	1.5

Lesson 1.05	<i>Static Methods &amp; Method Calls</i>
<b>Homework</b>	EX 1.11, 1.12, 1.14, 1.16

## 1.06

Lesson 1.06	<i>Static Methods &amp; Method Calls</i>
<b>Objectives</b>	Students will use structure diagrams to plan complex programs. Students will manage complexity by using method calls.
<b>Assessments</b>	Students will complete Practice problems, students will write a structured Pikachu program.
<b>In Class</b>	LP StarFigures LP PikachuChatter
<b>Reading</b>	
<b>Homework</b>	Outline Ch. 1 PP 1.1, 1.3

## 1.07

Lesson 1.07	<i>Programming Project</i>
<b>Objectives</b>	Students will construct a program containing method calls and static methods.
<b>Assessments</b>	Students will submit a complete, functional program by the end of class.
<b>In Class</b>	PP 1.2, 1.5
<b>Reading</b>	
<b>Homework</b>	Note check (add summaries if needed)

## 1.08

Lesson 1.08	<i>Finding &amp; Fixing Errors</i>
<b>Objectives</b>	Students will find errors in their returned homework assignments, and correct their code.
<b>Assessments</b>	Students will re-submit all homework assignments with corrected answers.
<b>In Class</b>	Fix homework
<b>Reading</b>	Review Ch. 1
<b>Homework</b>	Submit questions for review

## 1.09

Lesson 1.09	<i>Review</i>
<b>Objectives</b>	Students will identify weaknesses in their Unit 1 knowledge.
<b>Assessments</b>	Students will create a personalized list of review topics to guide tonight's study session.
<b>In Class</b>	Review questions WS 1.9 Practice test
<b>Reading</b>	
<b>Homework</b>	Study

1.99

Unit 1 Test	<i>Programming &amp; Java</i>
<b>In Class</b>	Test 0 Section I Test 0 Section II

1.XX

Lesson 1.XX	<i>Open Ended Programming Project(Lesson 1.07 Alternative)</i>
<b>Objectives</b>	Students will be able to ideate and construct a program containing method calls and static methods.
<b>Assessments</b>	Submit a complete, functional program by the end of class
<b>In Class</b>	Check class notes for completion
<b>Reading</b>	
<b>Homework</b>	All students must turn in notes for each day of class

## Abbreviations

- **WS** — Worksheet
- **SC** — Self-Check problem (in the textbook)
- **EX** — Exercise (in the textbook)
- **PP** — Programming Project (in the textbook)