AP CS A – Daily Plan Sheet   Date: _____

Karel J Robot – JAVA – Weeks 0–7

Here is the Karel section which contains all readings, homework assignments, and review sheets referred to below.

Week 0	In Class	Homework (we will always go over hw the next day in class)
day 1	Welcome Lecture Ch1	read Ch1 & Ch2 ch1 1-6
day 2	Lecture Ch1-Ch2 Demo JCreator compile/run	Ch2 1,2,6 read Ch3
day 3	Lecture Ch2 Demo JCreator configure	Ch2 9 install JCreator at home
day 4	Lab (9)	config JCreator at home
day 5	Lab	catch up reading
Week 1		
day 6	Lecture Ch3	Ch3 1,2
day 7	Lecture Ch3	Ch3 11
day 8	Lab (2, 11)	Review Sheet
day 9	Go over Review Sheet Lab	catch up
day 10	Lab	Study for Test
Week 2		
day 11	Test Ch1 – Ch3	Read Ch4 (through 4.3)
day 12	Lecture Ch4	Ch4 1
day 13	Lab (1)	Ch4 2
day 14	Lecture Ch4	catch up
day 15	Lab (2)	Review Sheet
Week 3		
day 16	Lab	keep working on review/read
day 17	Go over Review Sheet all labs due	Study for Test
day 18	Test Ch4	Read Ch5 (through 5.8)
day 19	Lecture Ch5	Ch5 1-3, 9
day 20	Lecture Ch5 Lab (9,11)	Ch5 11, start reading Ch6 (through 6.6)

Objectives:
- become familiar with the computer lab, accounts, and an IDE
- understand object-oriented programming and top-down design/refinement of individual tasks
- basic class structure including instance variables, static class variables, local variables, parameter passing, scope, public/private visibility, use of super
- sequence, selection, and iteration
- recursion
- inheritance & polymorphism, overriding methods
- java.util.Random, RandNumGenerator
- analyze, design, code, and test software
- error categorization/correction

Week 4	In Class	Homework (we will always go over hw the next day in class)
day 21	Lab	continue reading Ch6 through 6.6
day 22	Lab	catch up reading
day 23	Lecture Ch6	Ch6 1-4, 17
day 24	Lecture Ch6 Lab(17)	Ch6 25
day 25	Lab (25)	catch up reading
Week 5		
day 26	Lab	Review Sheet
day 27	Go over Review Sheet Lab – all labs due	Study for test
day 28	Test Ch5 – Ch6	Read Ch7
day 29	Lecture Ch7	Ch7 1
day 30	Lecture Ch7 Lab (1)	Ch7 2-3
Week 6		
day 31	Lab (2-3)	continue thinking
day 32	Lab	Read Ch9
day 33	Lecture Ch9	read Ch9
day 34	Lecture Ch9	pseudocode Ch9 1
day 35	Lab	
Week 7		
day 36	Lab	read Horstmann Ch2 R2.1-R2.7 (!R2.5) answer these using Karel as the context
day 37	Lab (9)	catch up reading
day 38	Lab	Review Sheet
day 39	Go over Review Sheet Lab – all labs due	Study for Test
day 40	Test Ch7 & Ch9	read Horstmann Ch1 R1.4 R1.6 R1.12

The companion website for Computing Concepts with Java Essentials, by Cay Horstmann is here.

Here is my explanation of OOD and why we have concrete classes, abstract classes, and interfaces.