Course: Intro to Programming with Karel the Dog (Español) l Module: Introducción a la Programación

CodeHS

Lesson 1.1: Introducción a La Programación Con Karel El Perro

https://codehs.com/course/1863/lesson/1.1

Description	Students are introduced to CodeHS and how Karel the Dog can be given a set of instructions to perform a simple task.
Objective	Introduce students to Karel and explain the commands she can be given.
Activities	1.1.1 Video: Introducción a la Programación con Karel El Perro 1.1.2 Quiz: Prueba: Órdenes de Karel 1.1.3 Example: Nuestro Primer Programa de Karel 1.1.4 Exercise: Tu Primer Programa de Karel 1.1.5 Exercise: Pequeño Montón 1.1.6 Debugging: ¡Karel va Bailando!
Prior Knowledge	Students should be familiar with CodeHS page navigation, icons, and how it is integrated into classroom.
Planning Notes	• Provide time before lesson to have students set up student accounts and become familiar with CodeHS web navigation.
Standards Addressed	N/A
Teaching and Learning Strategies	• Ask students to answer the question of What is a computer? What is computing? • Look around the room and write down all the computers that you see. • Discuss with class if a dog is a computer and what would make it one based on their definition of what a computer is. • Pair share what the difference is between a computer and computing. • Once completed, have students log into CodeHS with their usernames and passwords. It is suggested that a printed copy of

	student login info be handy in case some students forget their credentials.
	- Demonstrate to students an e-tour of the class page that will be used throughout the course. - Allow class to watch the introductory video Introduction to Programming with Karel. If needed students can take notes for later reference. Inform students that there will be a quiz after the video. - Direct students to view the example Our First Karel Program. Tell students to note how each command is written. - Encourage students to experiment with the results of writing the instructions in various order with Your First Karel Program. In addition, encourage students to experiment with what happens if commands are capitalized, parenthesis are left off, or semi-colons not present. - If there are students that are experiencing trouble with the program, allow them to examine a working program from a fellow student and discover their error. Students that are advanced, allow them to watch the next video, More Basic Karel. - Bring the class together to watch More Basic Karel video together. - Have students examine the next two examples, Tennis Ball Square & Make a Tower in pairs. Direct pairs to tell their partner in their own words how the program works. - For the Tennis Ball Square & Make a Tower exercises, have students work in pairs to write the commands to successfully complete the exercise. - For pairs that seem to have one person dominating the thought-process, ask the other student if they agree with the logic and to add their thinking to the solution. - Reflection (either discuss or written as an exit ticket): What can Karel teach us about computing?

Discussion Questions	- Motivational discussion questions include:
	  - What is programming?
	  - What is a computer? What are they used for? How are humans like a computer?
	  - What is the difference between a computer and computing?
	  - How are instructions used to execute simple tasks?

Resources/Handouts	Karel Commands (student) Karel Commands (teacher) Meet Karel the Dog (student) Meet Karel the Dog (teacher)

Vocabulary

Term	Definition

Modification: Advanced	Modification: Special Education	Modification: English Language Learners
• Encourage students to discover what else Karel can do by directing them to the Cheat Sheet.	• Instruct students to identify the objective of the exercises by looking at the left hand side of the screen • Provide the exercise solutions. Have students type the solution and describe step by step descriptions of what Karel does. • Printed out list of Karel's commands. Have student circle or mark which commands Karel will perform before it is typed. • Review the concept of north, east, west, and south. • For the Pyramid of Karel exercise, shorten the assignment so that student only has to get Karel to build two towers	• Provide a predefined list of vocabulary • KWL Chart - Computers/Computing/Karel the Dog. Pair similar students and have them share out their charts. Homework can be modified so that the students fill out the What I Learned section for homework. • Print out the concept of avenues from the More Basic Karel video