

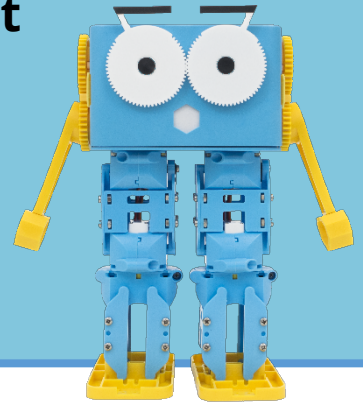
Lesson 2.1 – Introduction to Marty the Robot

Education Level: Third/Fourth Level (Ages 11-14)

Lesson Duration: 45 minutes

Prerequisite Knowledge: N/A

Device Compatibility: Laptop or PC



Lesson Overview

In this lesson, students get an introduction to Marty and how we can create and run programs that will move different body parts. Students should start to develop an understanding of the outcome of different code blocks on Marty and the environment that he is in. They should also start to gather a better understanding of the Python syntax.

Learning Objectives

- Be able to create and run a Python script for Marty
- Describe the outcome different commands will have on Marty and his environment

Key Vocabulary

- Python
- Coding
- Script
- Functionality

Resources & Equipment

- Marty the Robot
- Python editor
- Access to computers/laptops (with Python installed)
- *Marty Says* cards

Additional Reading

- Educator's Guide
- Get Started with MartyPy

Learning Plan & Activities

1. Gather ideas from students on the kind of functionality they think that Marty will have by looking at him and investigating different body parts
2. Show students examples of a few different commands that can be used with Marty and ask them to predict what they think the outcome will be
 - a. Start off with individual commands before slowly building up to multiple commands and get students to describe step by step what they think will happen
3. Show students the documentation for the MartyPy library
4. Given some random *Marty Says* cards, get students to code Marty into that position using the commands described in the documentation
5. Students come up with their own poses, draw these and then challenge the class to write code to recreate that pose

Additional Challenges

- Students start to put together their own sequence of movements and poses so that we start to develop a little dance routine for Marty
- Students come up with a sequence that involves moving each of the different moveable body parts that Marty has

Curriculum Benchmarks

Curriculum for Excellence – Technologies Benchmark Guide

● = Fully Addresses Benchmark ○ = Partially Addresses Benchmark

Curriculum Organiser	Benchmark Covered	Lesson 2.1
Digital Literacy	TCH 4-01a	○
	TCH 2-02a	○
Technological Developments in Society and Business	TCH 0-05a	●
	TCH 1-05a	○
Craft, Design, Engineering & Graphics	TCH 0-10a	●
Computing Science	TCH 0-13a	●
	TCH 1-13a	○
	TCH 2-13a	●
	TCH 0-14a	●
	TCH 0-14b	○
	TCH 1-14a	●
	TCH 1-14b	○
	TCH 2-14a	●
	TCH 2-14b	○
	TCH 3-14a	○
	TCH 4-14c	○
	TCH 0-15a	●
	TCH 1-15a	●
	TCH 2-15a	○

National Curriculum – Computing, Design & Technology

● = Fully Addresses Benchmark ○ = Partially Addresses Benchmark

Curriculum Organiser	Benchmark Covered	Lesson 2.1
Computing	1-a	●
	1-b	●
	1-c	●
	1-d	●
	1-e	●

	2-a	●
	2-b	○
	2-c	●
	3-a	○
	3-b	○
	3-e	○
Design & Technology	1.1-a	●
	1.1-b	●
	1.2-a	○
	1.3-a	○
	1.3-b	●
	2.1-a	○
	2.1-b	○
	2.3-b	●
	2.4-d	○
	3.1-c	○
	3.3-c	●
	3.4-d	○

Australian F-10 Curriculum – Digital Technologies, Design & Technologies

● = Fully Addresses Benchmark ○ = Partially Addresses Benchmark

Curriculum Organiser	Benchmark Covered	Lesson 2.1
Digital Technologies	ACTDIK001	●
	ACTDIK002	○
	ACTDIP003	○
	ACTDIP004	○
	ACTDIP013	●
	ACTDIP029	○
Design & Technologies	ACTDEK001	○
	ACTDEP006	●
	ACTDEP009	●
	ACTDEP018	○