LESSON PLAN: 2nd year – 15th lesson, Feb'19

TITLE	Milo Robot Creation - wheel drive and motion sensor for finding an object
THEME	Science/Technology/Art/Engineering
GRADES	5th Grades
DURATION	90'(2X45 minutes)
REALIA-MATERIAS	8 Lego WeDo 2.0 Robot Kits 8 Tablets - Interactive Whiteboard - P.C.
OBJECTIVES	Through the lesson, pupils will be able to: 1. Learn how to create robots and unmanned missions in remote and inaccessible locations. 2. Understand the concept of movement and speed. 3. Learn how to create robots and unmanned missions in remote and inaccessible locations. 4. Understand the concept of movement and speed. 5. Create a step by step robot on Milo using Lego blocks. 6. Make commands on their tablets 7. Try to change the speed of the robot

	8. Locate objects with the sensor and schedule the robot to respond with a message.
DESCRIPTION	During the course, pupils will be given a problematic situation in order to find a solution and implement it. They will think as if they were scientists who need to know and explore places and particularly places that cannot be approached. Step by step, pupils, divided into groups of two or three will create a Milo robot using Lego Blocks and then try using tablet and programming commands to put it into operation. They will install a sensor and create artificial objects so that when the sensor detects them to respond by sending a message. Then they will experience changes in robot speed and response to the new findings according to the instructor's instructions.
EVALUATION	Evaluation indicators: • At the end of the two-hour course pupils will have faced and resolved a problematic situation with the help of technology, IT and robotics. They will be in the spirit of the problems faced by Nasa scientists and will know the need to create satellites, robots and unmanned missions. They will learn about Mars mission and its evolution as well as its importance in the advancement of science. • They will experience the concept of speed but also ways of increasing it. • They will be familiar with the Lego WeDo 2.0 environment as well as with the command blocks. • They will create a program (algorithm) to solve a real problem. • They will combine some STEM concepts into a two-hour teaching - science - technology - etc. Finally, pupils will work in teams and will experience the benefits of group co-operation.