Unit 10: LEGO Robotics

Content Area: **Unified Arts**
Course(s): **Computer Science 2**
Time Period: **February**
Length: **20 days**
Status: **Published**

Unit Summary

Students will create a product by follwing picture directions. Students will program the Lego product to move using the WeDo Lego software.

Student Learning Objectives

Students will learn to...

- follow picture directions to create an alligator that opens its mouth using Legos.
- program the alligator to open and close its mouth..
- troubleshoot if the alligator does not "move" - surveying the alligator and/or the created program.

Essential Questions

- How do I follow directions to create a product?
- What are the steps to troubleshoot?
- How do I identify a problem?
- What questions do I ask to determine the problem?
- How do I compare my solution with others to determine the best solution?

Enduring Understandings

Students will understand that...

- engineering is a situation that people want to change or create can be approached as a problem to be solved. It is important to understand the problem through observations, asking questions and gathering information.
- problems or creations typically have more than one solution.
- an individual can ask questions based on observations to find more information about natural and/or designed world(s).
- a simple problem can be solved through the development of a new or improved object or tool.
- a simple model can be developed based on evidence to represent a proposed object or tool.

Application

Students will be able to independently use their learning to…

- apply previously coding and mousing skills to design an algorithm for LEGO design movement.

Skills
Students will be skilled at...

- desigining an algorithm.
- troubleshooting when something does not work.

Resources
- WeDo Lego Robotics kits
- Laptops with WeDo software