



Subject	Computing	Theme	Digital Creativity WeDo	Term	3
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What should I already know?

- How to design algorithms using flowcharts.
- How to design an algorithm that represents a physical system and code this representation.
- How to use selection in coding with the 'if' command.
- How to understand and use variables in coding.

What should I know by the end of the unit?

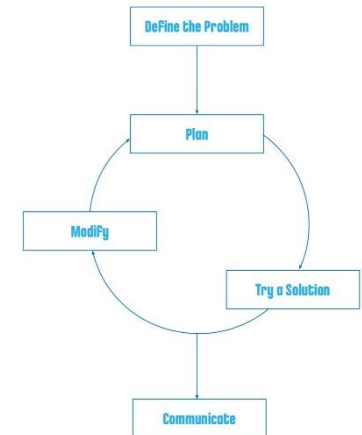
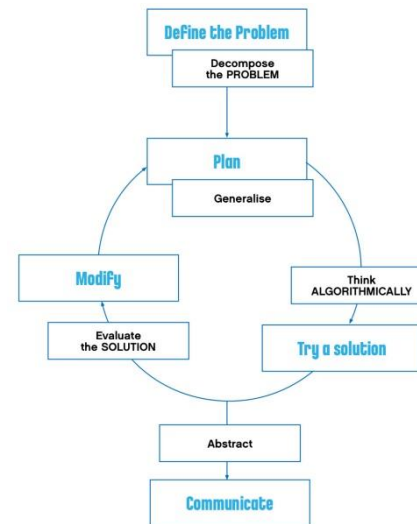
- How to build a LEGO model.
- How to connect your model to a device.
- How to program the snail to show a flash of light.
- How to program a motor too turn at different speeds.
- How to program a motor to turn for a set length of time.
- How to program a motion sensor to detect motion.

Computational Skills and Enquiry

- To use Lego WeDo 2.0 to represent a sequential program design.
- To use the design to write to the code for the program.
- To design and write a program that simulates a physical system.
- To combine a motor in a program with selection.
- To debug simple programs.
- To follow simple steps to create a physical system.

Key Vocabulary

device	The electronic element used to control the physical system. In this case it will be an iPad.
input	The commands and instructions the user puts "in" to the device.
model	The physical system made from Lego bricks that is controlled by the device.
motion	Movement carried out by the model, controlled by the commands on the device.
motion sensor	A physical element that can be added to a model. This detects motion.
motor	A physical element that can be added to a model. This allows the model or a part of model to move.
output	The light/sound/movement that the model feeds "out" of the system.



STEM Disciplines

Science, Technology, Engineering, Mathematics, Computer Science

Develop a Mindset and a Lifelong Set of Practices

1. Ask questions and solve problems
2. Use models
3. Design prototypes
4. Investigate
5. Analyse and interpret data
6. Use computational thinking

- a. Decompose
- b. Abstract
- c. Think algorithmically (code)
- d. Evaluate
- e. Generalise

7. Engage in argument from evidence
8. Obtain, evaluate and communicate information

Computational Thinking

Ways in Which We Solve Problems

