

FLL Curriculum - Ontario

Activity Sheet	
Gr 6 - Lesson #1	Building and Setup – Fitting into Food Chains
Date:	Name(s):

Check That I'm Done

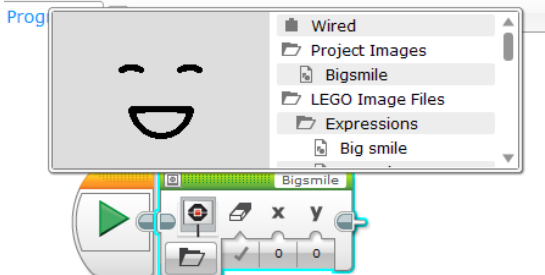
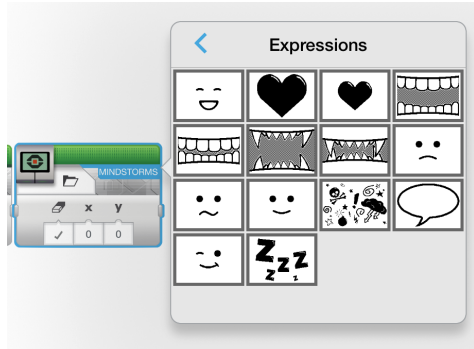
Commented on my code
 Modify the task
 Coding Challenge

Learn

Animals and robots have a lot in common. They can both accept input from their surroundings (through their eyes and ears), as well as react to that input by avoiding obstacles or following a path. The main difference being, for a robot to behave like an animal the programmer must tell it everything it must do with clear, sequential instructions.

EV3 allows you to not only select faces for your robot using the many already available, but you can also draw them with shapes. This will help personalize your robot. Click on the top right of the 'display block'.

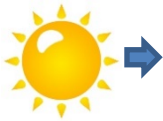


Computer Software Version	Tablet Software Version
	

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Predict and Plan

Imagine you've travelled to an alien planet, where the animals are completely different than earth. Though the ecosystems follow all of the same rules as earth, all of the creatures are robot/animal hybrids. Create a fake food chain below (or simple food web) with at least 5 animals.



Choose one of these animals to describe in detail.

What would it look like, would it have sharp teeth? Would it be a herbivore? Would it make nice noises, or scary ones? What colour would it be?

Describe this animal below. Include, where it lives, what it eats, and if it's friendly or not.



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Demonstrate/Design/Discover

- ✓ Take as many of the qualities of your animal, and try and program them into your EV3 robot.
- ✓ Use the 'sound block', 'display block', and 'brick status light block'
- ✓ Have your robot change faces, colours and sounds, as if going through a range of emotions, reacting to you feeding it, or petting it.
- ✓ Ask you teacher before putting any extra Lego pieces on the robot.

Tips: Think about what type of teeth a meat eating animal has? What colour shows anger, and what colour represents a calm attitude?

The sound block has many animal noises already there for you. Click on the block to modify it.

Change the length of the wait block to control how long certain things run for.



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Record	
How many blocks were in your largest program?	

Questions	
Question 1 Science	How did you use the sound block to personalize your animal?
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Question 2 Science	How did you use the light block to personalize your animal?
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Question 2 Science	How did you use the display block to personalize your animal?
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Question 3 Coding	What did the wait block allow you to do?
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Question 4 Coding	Could your animal take input from its surroundings?



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Extension Coding and Science	The wait block can be edited just like the sound and display block. Instead of waiting for a certain amount of time to pass, you can wait for the button on the EV3 brick to be pressed. This allows your robot to 'react' to its environment. Change your code to use only these types of wait blocks.
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