



Learn to program on phone with Pocket Code

Lesson 10: Magic Panda

About CEL

Code to Enhance Learning is nonprofit uses coding as a tool to build critical thinking, creativity, collaboration and perseverance in children in grade 4-9.



Lesson 10

Magic Panda

Objective:

We will make an application magic panda.



Let's Recall:

1. What is Sequence?

A logical Order

2. What is Events?

An event in an action due to which something happens.

3. What is Loop?

Repeats a sequence of instructions

4. What is Nested Loop?

Loop within a Loop.

5. What is Conditionals?

Conditionals are expressions that evaluate to either true or false.

Let's Recall:

6. What is Parallelism?

The ability of the brain to do many things (aka, processes) at once

7. What is Broadcasting?

Instructions are transmitted from a sprite or backdrop to cause other things to happen.

8. What are Operators?

Operators are a part of an expression and allows us to operate on values i.e. operands. The expression returns a value.

9. What is Variable?

Variables are used to store information to be referenced and manipulated in a computer program.

Accelerometer

An **accelerometer** is an electromechanical device in our phone that is used to measure acceleration forces.

In our phone it helps to measure the dynamic of sense movement or vibrations



Talk to your partner:

- Any use of Accelerometer in our phone, you know?



Let's share the response.



Magic Panda: (Teacher Models)

Let's do abstraction (i.e. to identify important details) to make understand project and make it simple

1) What will happen on the stage?

➤ When Scene starts, our sprite panda is a bottom left corner as we will shake our phone, if we shake it with high intensity, our panda will go out of screen and then there will be a sound of firework.

2) What sprite and backdrop will be needed on the stage?

Backdrop



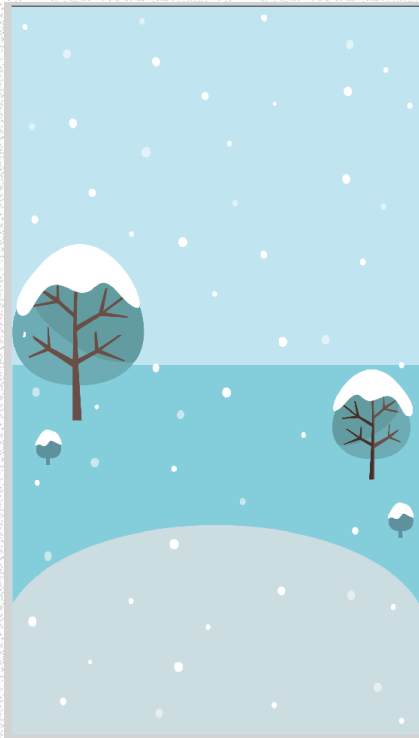
Sprite 1



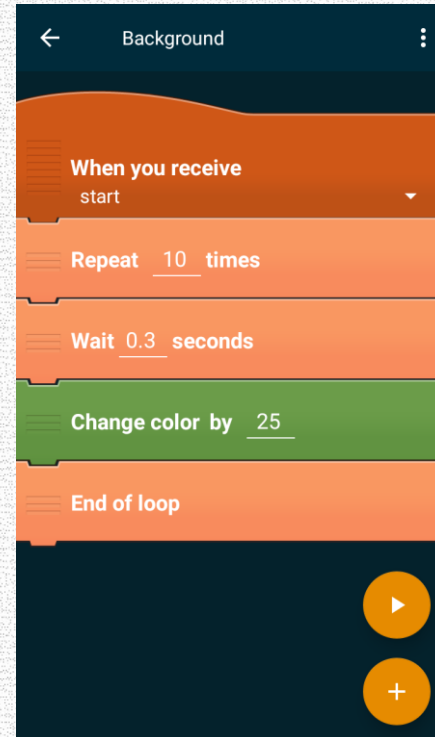
Magic Panda: (Teacher Models)

Let's make the project and write codes for the sprites...

Backdrop



Codes/Programs



Magic Panda: (Teacher Models)

Let's make the project and write codes for the sprites...

Sprite



Codes/Programs

```
magic_panda  
When scene starts  
Place at  
x: -239 y: -483  
Set size to 150 %  
Forever  
Broadcast start  
If acceleration x > 5 is true then  
Turn flashlight on
```

```
magic_panda  
If acceleration x > 5 is true then  
Turn flashlight on  
Glide 1 second  
to x: 500 y: 500  
Vibrate for 2 seconds  
Start sound and wait fireworks  
End if  
End of loop
```

Quiz:

1. What is Accelerometer?

Quiz:

2. Which Code Block will help the panda move if x acceleration is greater than 5?

A)

```
If acceleration x > 5 is true then
  Glide 1 second
  to x: 500 y: 500
End if
```

B)

```
If acceleration x > 5 is true then
  Start sound and wait
  yeah-1
End if
```

Closing:

- What did we do today?
- What is one thing that you liked in the class the most?
- What did you learn?

Code To Enhance Learning

Website: www.codetoenhancelearning.org