Learn to program on phone with Pocket Code

Lesson 5: Catch the Fruit
Code to Enhance Learning is a nonprofit that uses coding as a tool to build critical thinking, creativity, collaboration, and perseverance in children in grades 5-9.
Lesson 5
Catch The Fruit
Objective:

We will make an application in which we will make a robot catch the fruits falling from the sky.
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.
Conditionals

- We have to take sometimes so many decisions which is very tedious. For example, students that have passed in a class of 60 students.

- Once we code a computer with conditionals then they would be able to make decisions on their own and things will become less tedious for us.

- Also, underlined things are called conditions and italics things are called decisions. Both together are called conditional statements.

If you pick a red color card then
you will get 10 points

If you pick a red jack/queen/king then
you will get 15 points
Conditionals in real life

Talk to your partner:
1) Think of at least one example when you see conditionals in real life?

Let’s share.
Catch The Fruit: (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?
   1) Move the robot with the arrow keys
   2) Fruits will fall from the sky.
   3) If the apple touches the robot it will “I got an apple” and same will happen for the orange as well

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

Backdrop

Sprite 1

Sprite 2

Sprite 3

Sprite 4

Sprite 5
Catch The Fruit : (Teacher Models)
Let’s make the project and write codes for the sprites...

Sprite

Codes/Programs
Catch The Fruit : (Teacher Models)

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

Sprite

Codes/Programs

When scene starts
Set size to 50%
Forever
Place at
x: random value y: 500
Repeat 100 times
Change y by -10
End of loop
End of loop
Catch The Fruit : (Teacher Models)

Let’s make the project and write codes for the sprites…

<table>
<thead>
<tr>
<th>Sprite</th>
<th>Codes/Programs</th>
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<tbody>
<tr>
<td><img src="image.png" alt="Sprite Image" /></td>
<td><img src="image.png" alt="Program Image" /></td>
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- **When scene starts**
- **Set size to 50%**
- **Forever**
- **Place at**
  - x: random value... y: 500
- **Repeat 100 times**
- **Change y by -10**
- **End of loop**
- **End of loop**
Catch The Fruit : (Teacher Models)

Let’s make the project and write codes for the sprites…

Sprite

Codes/Programs

When scene starts
Place at
x: 23  y: -966

When tapped
Broadcast
Catch The Fruit : (Teacher Models)

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

<table>
<thead>
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<tbody>
<tr>
<td><img src="image" alt="Hammer Sprite" /></td>
<td><img src="image" alt="Code Editor Screenshot" /></td>
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Quiz:

1. What is Conditionals?
Quiz:

2. Which of the following code is the example of conditions:

A) Place at
   x: random value... y: 500

B) When you receive
   If on edge, bounce
   Change x by 50

C) When you receive
   Set rotation style
   left-right only
   If on edge, bounce
   Change x by -50

D) If touches actor or obj... is true then
   Say 'Got an orange'
   for 1 second
   End if
   End of loop

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Closing:

• What did we do today?
• What is one thing that you liked in the class the most?
• What did you learn?
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Website: www.codetoenhancelearning.org