

# The Hungry Caterpillar

## Activity Structure – 45min

Activity	Timing
Warm up Game	5 mins
Introduce Story and Project	5 mins
Main Activity	25 mins
Final test & debug	5 mins
Share with group	5 mins

### Overview

Use Eric Carle's story The Hungry Caterpillar to create an animation in which a caterpillar eats lots of different foods before turning into a butterfly.

### Learning Objectives

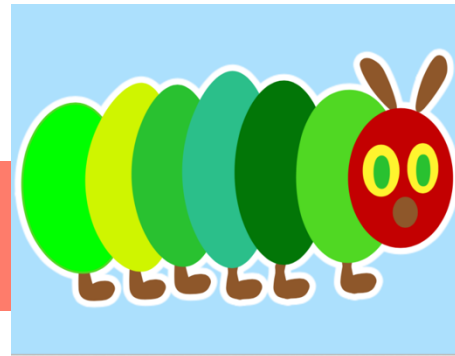
- To use the 'start on bump' block
- To make a character move across the screen

### Warm up game

- Show the 'start on bump' card. *What do you think would happen if I used this card?*
- Hold up the 'bump' and 'jump' cards. Ask children to walk around the room slowly and when they pass, they high five/shake hands then do a 'jump'. Repeat but change the code block from 'jump' to grow, turn, stop, etc.
- Sit students down. Pick two to be your 'characters', remaining students and tutor create a line of code for characters to enact that uses the 'bump' block to start.

### Introduction (discuss the project together, share ideas and create excitement)

- *Does anyone know anything about caterpillars?*
- *How do you think Caterpillars change/transform into butterflies?*
- Read the story of "The Hungry Caterpillar" *Why do you think he ate so much?*
- *We are going to make our own hungry caterpillars today. Show the 2 projects.*
- *Which code blocks made the fruit disappear? Which block did I use to make the caterpillar get bigger?*
- Ask the children to think about what foods their caterpillar would like to eat.



# The Hungry Caterpillar

## Main Activity Key questions and teaching

1. Draw the caterpillar character using the circles and stamp buttons in the draw function.
2. The children can either draw the butterfly and the food or use the library characters.
3. Create a green backdrop.
4. Position and code the food first.
5. Then code the caterpillar to 'bump' into the first piece of food when the green flag is tapped.
6. Discuss making sensible guesses to use the correct number of movement blocks.  
*If 7 is too far and 3 is not far enough what would be a good guess?* If they're finding it difficult, children can tap the movement block and count the taps to each piece of food.
7. Record the 'munch' sound, add it to your code, then add the 'grow' block.
8. Children can decide how much they want their caterpillar to grow each time. They could also record a different sound each time a piece of food is eaten.
9. Repeat for the remaining food.
10. Use messaging blocks to code the butterfly to appear.

## Teaching points

- Make sure the butterfly character doesn't 'bump' any of the other characters when it is hidden.
- Make sure children don't code all the movement blocks first as this will change as the caterpillar 'grows'.
- Encourage children to test and debug and they code.

## Possible Extensions

- With experienced coders, position the food in an arc shape rather than a straight line. *Which movement blocks will you need to use so that the caterpillar 'eats' each one? Why do we need to use 'wait' blocks?*
- Position the butterfly in a different background so that the 'switch page' end block must be used.
- Teach children how to be more 'efficient' by copying and dragging a line of code from one character to another (when they are coding the food).
- *Now you have coded the caterpillar to eat the food, could you make it become a cocoon before it becomes a butterfly?*

## Finishing up

- What did you like about your project/your friend's project?
- What would you do differently next time?

## Useful Resources

### **The Very Hungry Caterpillar**

In the light of the moon a little egg lay on a leaf.

One Sunday morning the warm sun came up and - pop! – out of the egg came a tiny and very hungry caterpillar.

He started to look for some food.

On Monday he ate through one apple, but he was still hungry.

On Tuesday he ate through two pears, but he was still hungry.

On Wednesday he ate through three plums, but he was still hungry.

On Thursday he ate through four strawberries, but he was still hungry.

On Friday he ate through five oranges, but he was still hungry.

On Saturday he ate through one piece of chocolate cake, one ice-cream cone, one pickle, one slice of swiss cheese, one slice of salami, one lollipop, one piece of cherry pie, one sausage, one cupcake and one slice of watermelon.

That night he had a stomach ache!

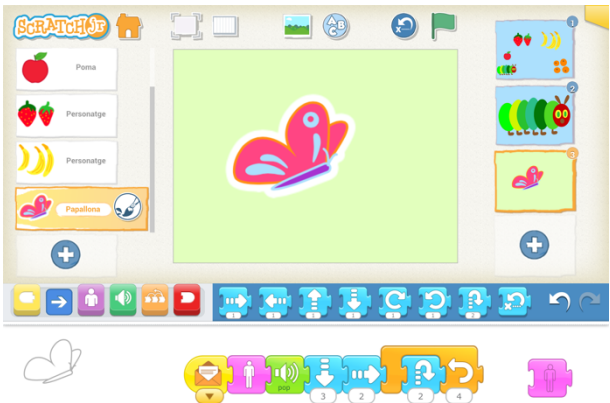
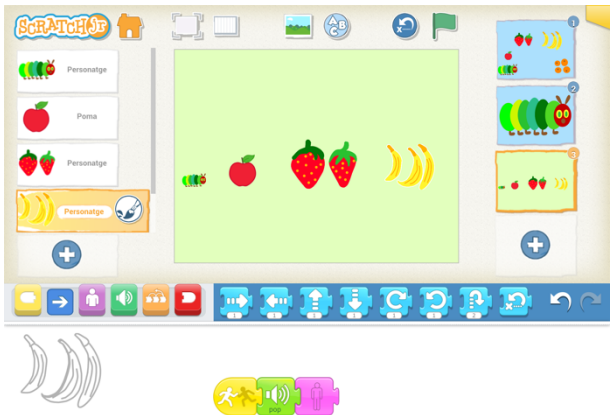
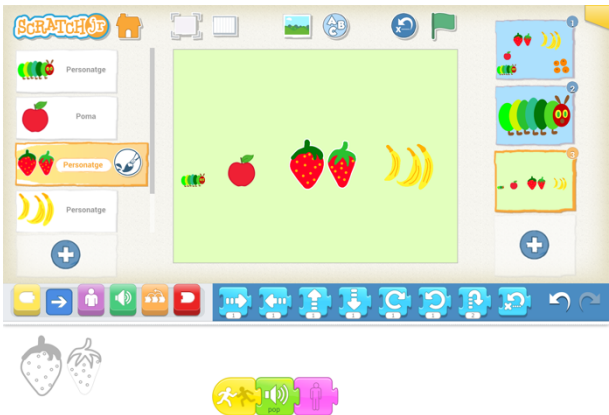
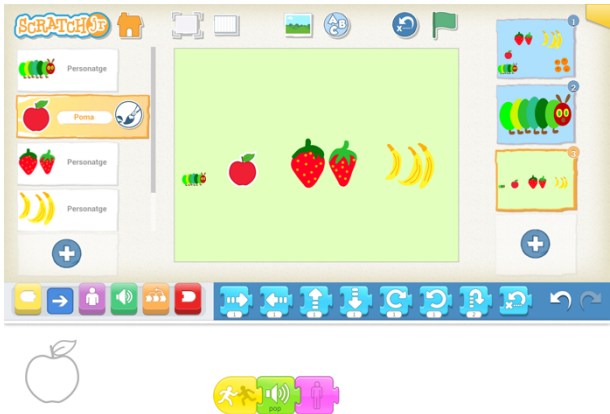
The next day was Sunday again. The caterpillar ate through one green leaf and felt much better.

Now he wasn't hungry anymore and he wasn't a little caterpillar anymore. He was a big, fat caterpillar.

He built himself a house, called a cocoon, around himself. He stayed inside for 2 weeks. Then he nibbled a hole in the cocoon.... Pushed his way out and... he was a beautiful butterfly!

# Code Sheets

## Main Activity (page 1 of 1)



# Code Sheets

## Possible Extensions (page 1 of 2)



# Code Sheets

## Possible Extensions (page 2 of 2)

