

# 7.1 Volcano of Candies





## Intro

It's the harvest season for the aborigines when Mike arrived their land. There's a dangerous volcano which kept spraying candies. Mike was asked by the aborigines to help them collect those candies from the volcano. Of course, Mike said yes and decided to go to the candy volcano flying Mike No.1.

## Task

1. Design a volcano which can spray candies.

## Start Learning


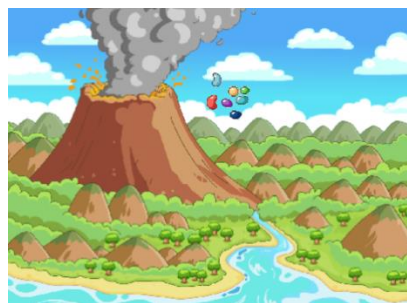




Block	Explanation	Example
	Create clone for the sprite you choose. The cloned sprite is called "Clone", which inherits all the attribute and script of the original sprite.	
	The Clone will start operating from this block. Each Clone can possess various of this block.	
	Delete the Clone when it is not needed.	

## Achieve

Firstly, import backdrop "Candy Volcano.png" and then five sprites "Candy 1.png", "Candy 2.png", "Candy 3.png", "Candy 4.png" and "Candy 5.png".


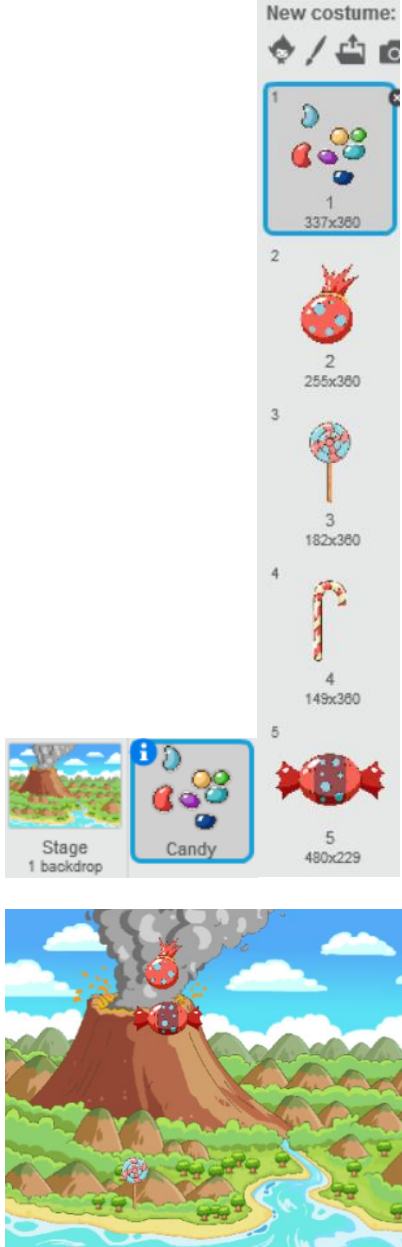
1. Let's use broadcast function to achieve the effect of volcano spraying candies.

Sprite	Program	Effect
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 <p>Candy 1</p>	<pre> when I receive 5 show go to x: -90 y: 100 glide 0.5 secs to x: pick random -200 to 200 y: 150 glide 1 secs to x: pick random -200 to 200 y: -150 hide broadcast 1  when clicked broadcast 5 </pre>	
 <p>Candy 2</p>	<pre> when I receive 1 show go to x: -90 y: 100 glide 0.5 secs to x: pick random -200 to 200 y: 150 glide 1 secs to x: pick random -200 to 200 y: -150 hide broadcast 2  when clicked hide </pre>	
 <p>Candy 3</p>	<pre> when I receive 2 show go to x: -90 y: 100 glide 0.5 secs to x: pick random -200 to 200 y: 150 glide 1 secs to x: pick random -200 to 200 y: -150 hide broadcast 3  when clicked hide </pre>	
 <p>Candy 4</p>	<pre> when I receive 3 show go to x: -90 y: 100 glide 0.5 secs to x: pick random -200 to 200 y: 150 glide 1 secs to x: pick random -200 to 200 y: -150 hide broadcast 4  when clicked hide </pre>	
 <p>Candy 5</p>	<pre> when I receive 4 show go to x: -90 y: 100 glide 0.5 secs to x: pick random -200 to 200 y: 150 glide 1 secs to x: pick random -200 to 200 y: -150 hide broadcast 5  when clicked hide </pre>	

2. Now we've achieve the effect of candies spurting one by one, but it's not quite smooth and natural. For instance, the time interval between candy and candy is the

same; only one candy is spurted; or the order of candies always remains the same. Meanwhile, we can find out that the logic behind all the 5 candies are basically the same. To solve this issue, we need to use clone block. This time, we will use the 5 candies as the 5 costumes of a sprite, naming them as 1 to 5.

Sprite	Program	Effect
 <p>Candy</p>	<pre> when green flag clicked   hide   go to x: -90 y: 100   forever loop     switch costume to pick random 1 to 5     create clone of myself     wait pick random 0.5 to 1 secs  when I start as a clone   show   glide 0.5 secs to x: pick random -200 to 200 y: 150   glide 1 secs to x: pick random -200 to 200 y: -150   delete this clone           </pre>	

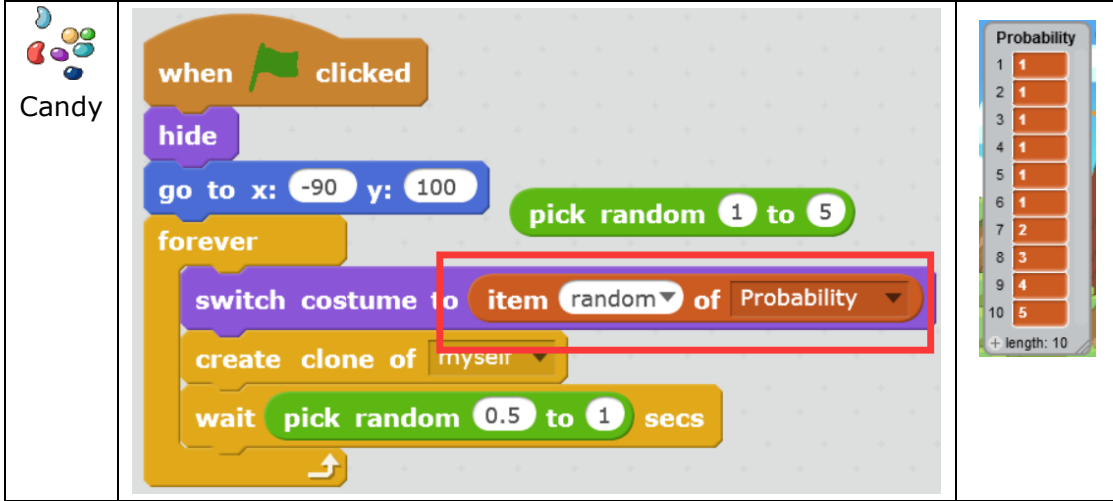
## Tips

`pick random 0 to 1` is different from `pick random 0.0 to 1`. The former refers to random number between 0 and 1 while the latter refers to a random number (including decimal) between 0 and 1.

## Additional Training

How to make one specified candy appears more times than the others? We can use a list to change the frequency set by the "pick random..to..".

Sprite	Program	Effect
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## Homework

1. How to make the eruption of the volcano more frequent?
2. How to program the volcano to spray not only candies but also some other items?

## What You've Learnt?

Adventure Diary (Self-Assessment)

An empty rounded rectangle with a blue border, intended for a self-assessment diary entry.

Gas Station (Other's Assessment)

An empty rounded rectangle with a blue border, intended for an assessment by others.