

## Create – Applications From Ideas

### Written Response Submission Template

Please see [Assessment Overview and Performance Task Directions for Student](#) for the task directions and recommended word counts.

#### Program Purpose and Development

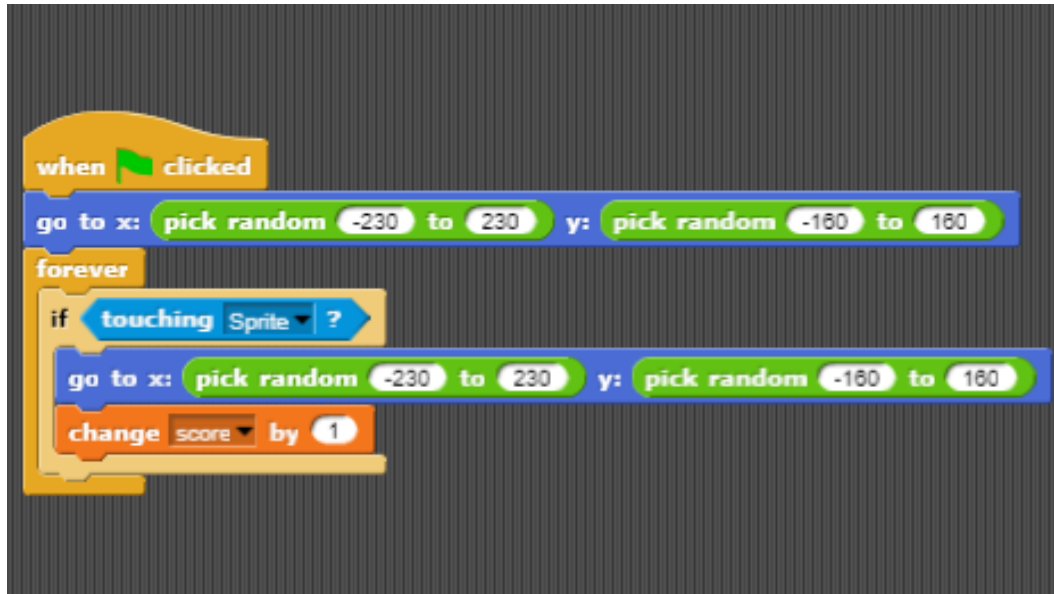
2a)

My program was created using snap. My program is called "Collect The Apples". The purpose of my program is for the player to use the snake to collect as many apples as possible. Every time they get one the snake begins to move faster and has to keep changing direction without touching the edges. As the speed of the game increases you have to be able to change direction faster. Every time the snake gets the apples it grows . As it gets faster an bigger you have to continue to avoid the edges or the snake will die and the game will end.

2b)

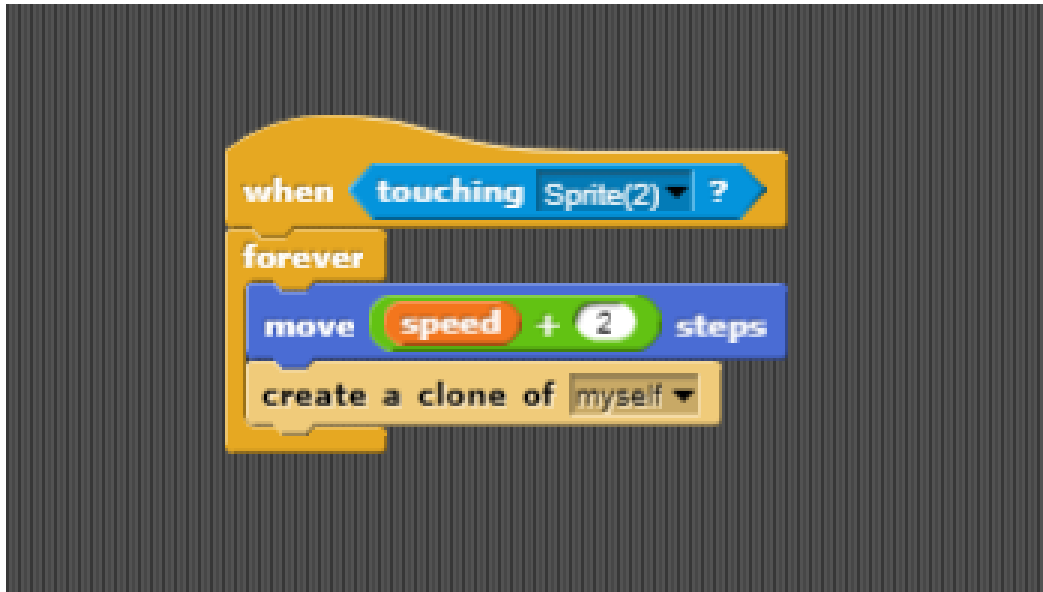
One difficulty I faced was figuring out how to get the Snake to grow. To solve this problem I made the snake create a clone every time it got an apple. When there are new clones, it waits a while then deletes some of the clones so the snake isn't too long. This was done independently. Another problem I had was changing the speed of the snake. To solve this I had to add a certain amount of steps to the original speed of the snake every time it got an apple. This was done collaboratively.

2c)



The purpose of this algorithm is to make the apple appear in a new place. Each time the snake gets an apple, it reappears somewhere else. When the snake touches the the sprite that is the apple, the random number function makes it reappear any where between x: -230 to230 and y: -160 to 160. This also adds to the difficulty of the game the closer the apple goes to the edges, because the snake has to avoid the edges or the game will end.

2d)



The purpose of this abstraction is to cause the snake to grow every time it eats an apple. This is done by ceating a new clone that will follow the snake every time it eats an apple. This abstraction also increases the speed of the snake each time it collects an apple. This causes it to be more challenging to get the apple and also avoid the edges.