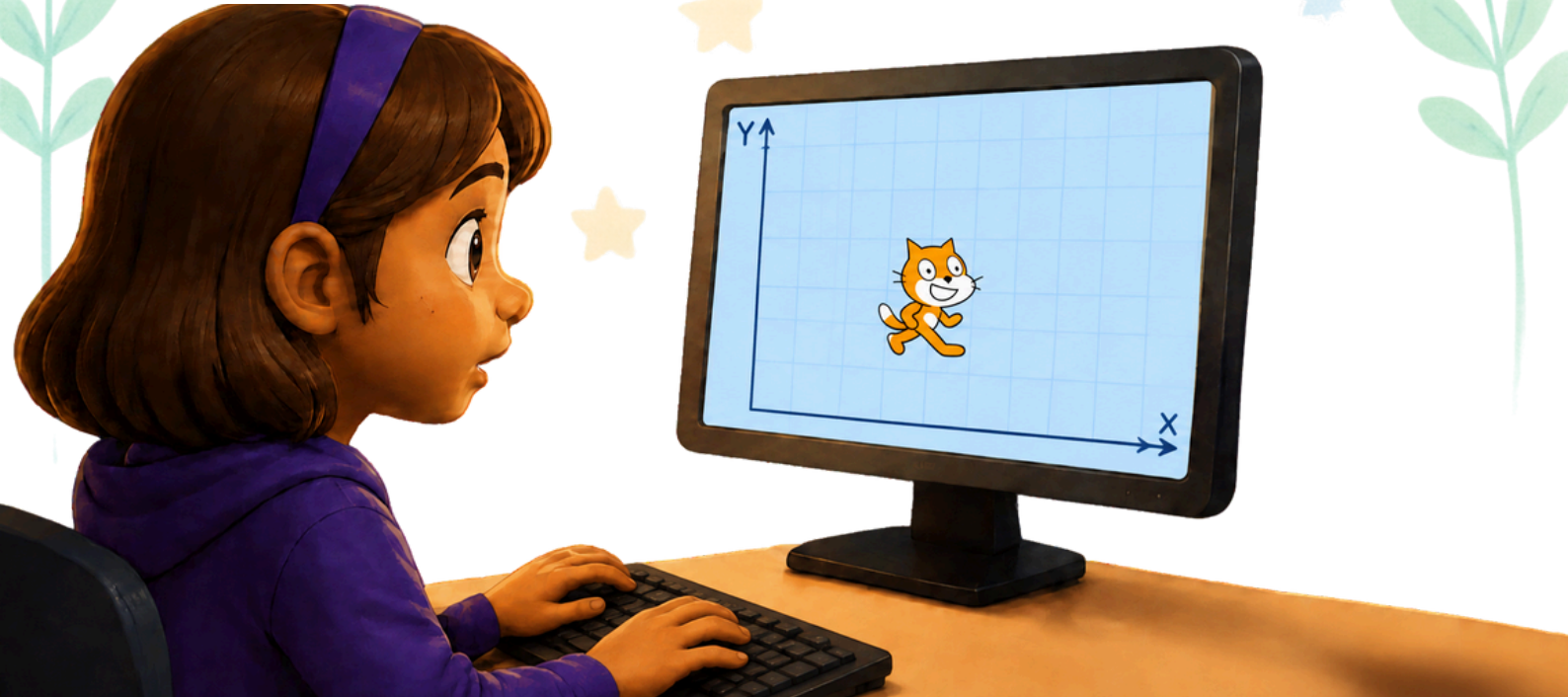
LESSON 8:

KNOW COORDINATES



SCRATCH WORLD



One day, the little cat was feeling very hungry. It saw four delicious fruits in different places in the magical land. The cat wanted to eat all four fruits, but they were far apart.



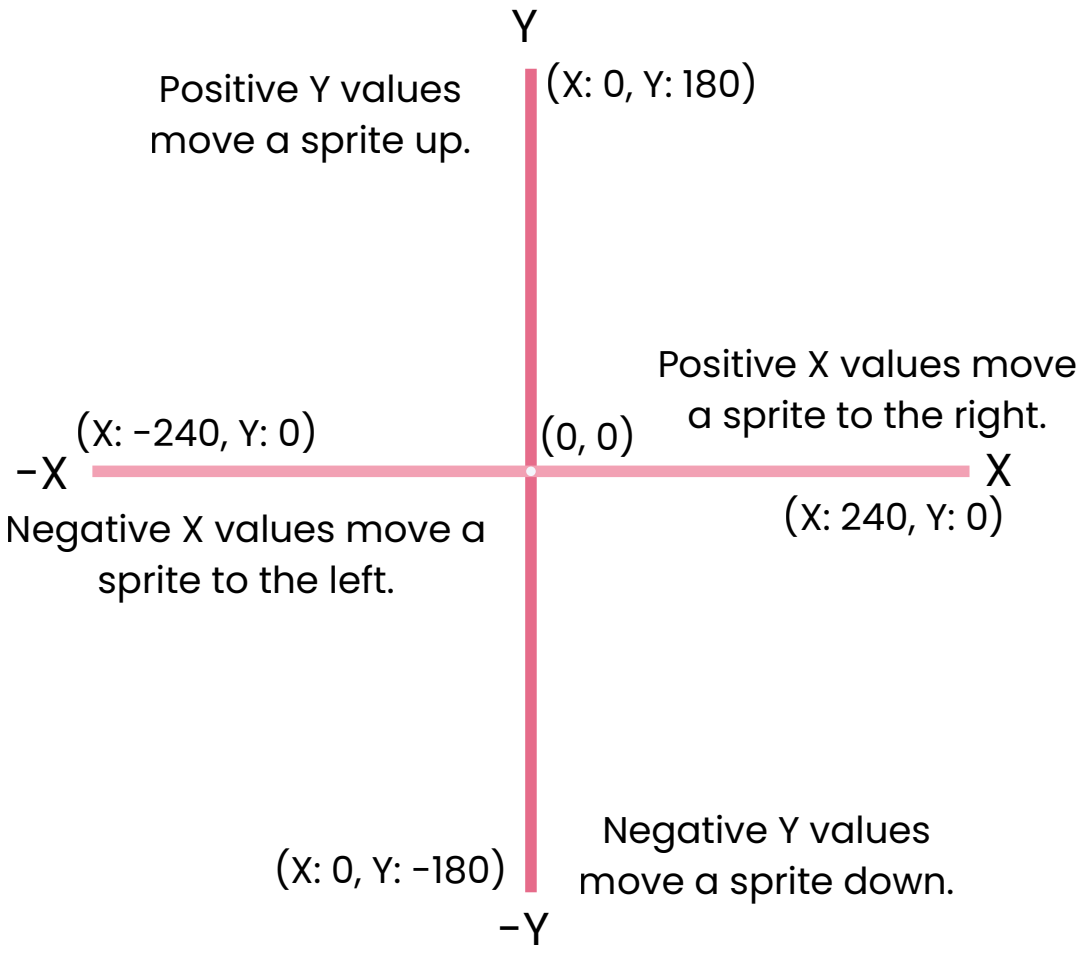


Let's Learn About Coordinates

Coordinates help us find the position of a sprite on the Scratch Stage.

- X coordinate: Tells us the horizontal position of a sprite (left or right).
- Y coordinate: Tells us the vertical position of a sprite (up or down).

In Scratch, the center of the Stage is (0, 0).



Let's Create Our Project

Step 1: Add the Fruits

- Add four different fruit sprites from the Sprite Library.
- Place them in four different positions on the Stage.
- Select the Cat sprite and place it near the center of the Stage.

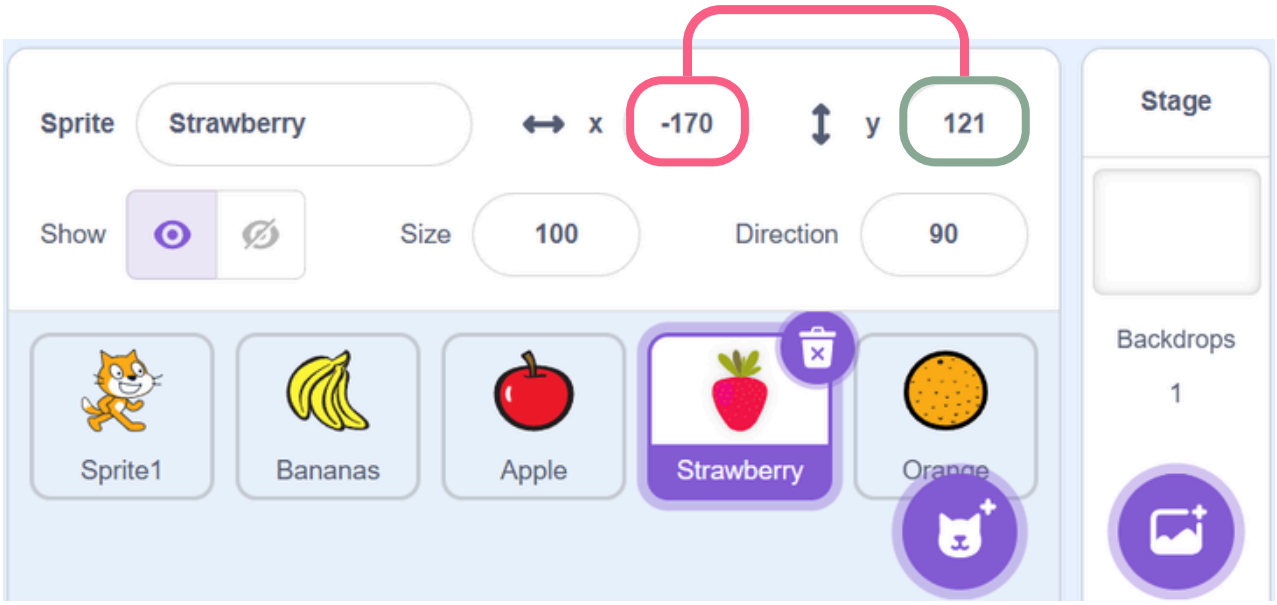


Note: You can view and check a sprite's X and Y coordinates in the Sprite Pane. Select the sprite to see its current position.

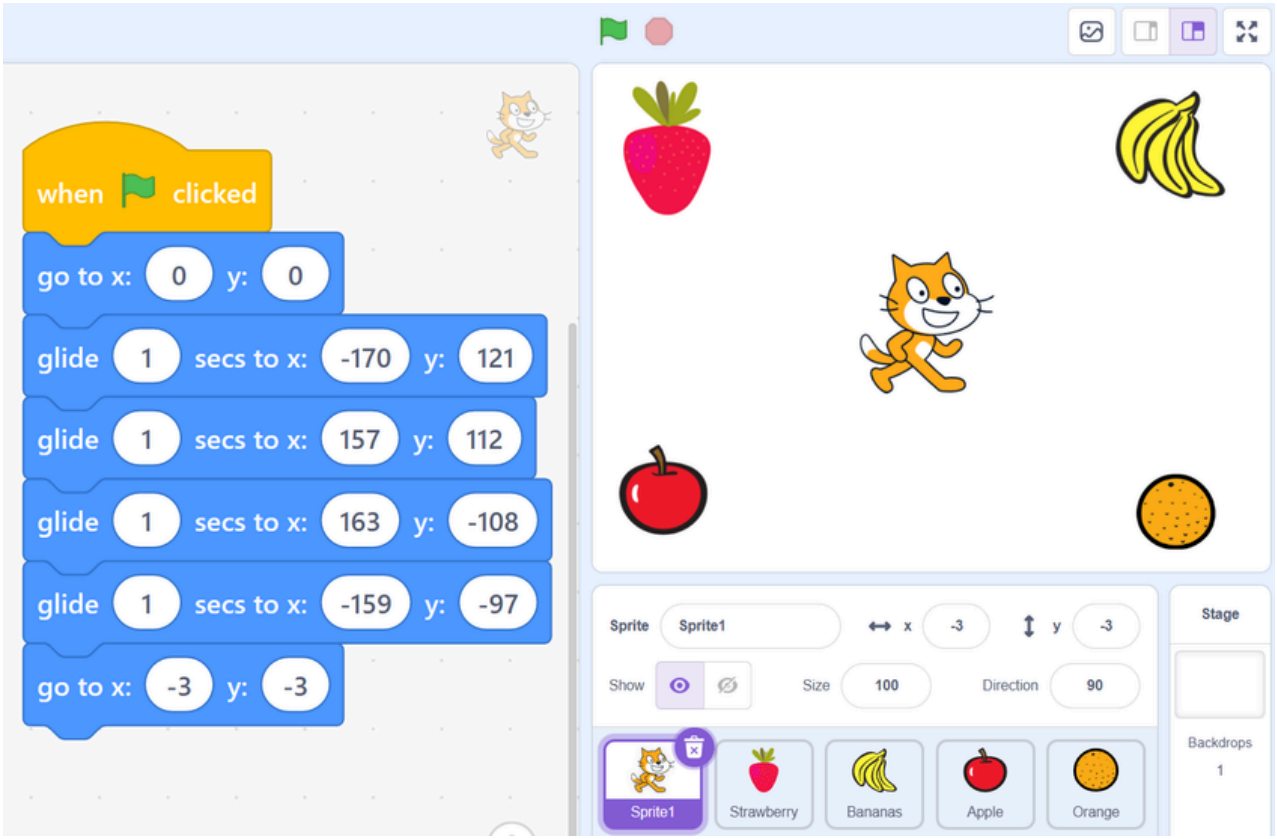
Step 2: Help the Cat Reach the Fruits!

Let's make the cat glide to each fruit using its coordinates.

- Click on the first fruit on the Stage.
- Look at its X and Y coordinates in the Sprite Pane and remember these values.



- Select the Cat sprite.
- Add the When green flag clicked block.
- Add the Go to x: (0) y: (0) at the center block to set the cat's starting position.
- Add the Glide (1) secs to x: () y: () block and enter the X and Y coordinates of the first fruit.
- Repeat these steps for the other three fruits.



Challenge: Create Your Own Fruit Adventure

- Change the positions of the fruits and update the coordinates in your code.
- What happens when you change only the X coordinate?

Today we explored

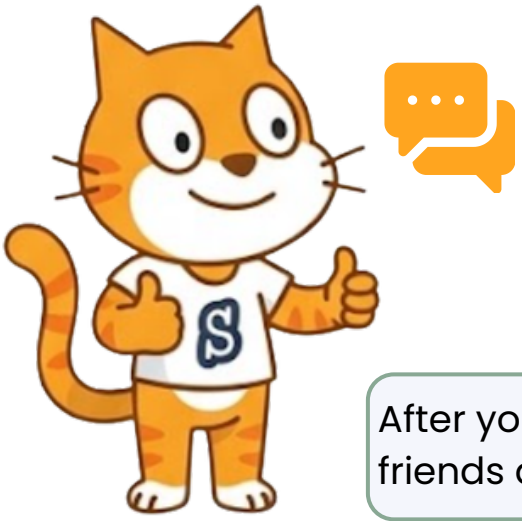


- What coordinates are in Scratch.
- How X and Y coordinates determine a sprite's position.
- How to find a sprite's coordinates in the Sprite Pane.
- How to use the glide block to move a sprite to the exact position of a fruit.

Let's reflect



- What did you find exciting about adding glide to your Scratch project today?
- What did you learn about coordinates in Scratch that you didn't know before?



After you reflect on these questions, talk to your friends and share your thoughts.