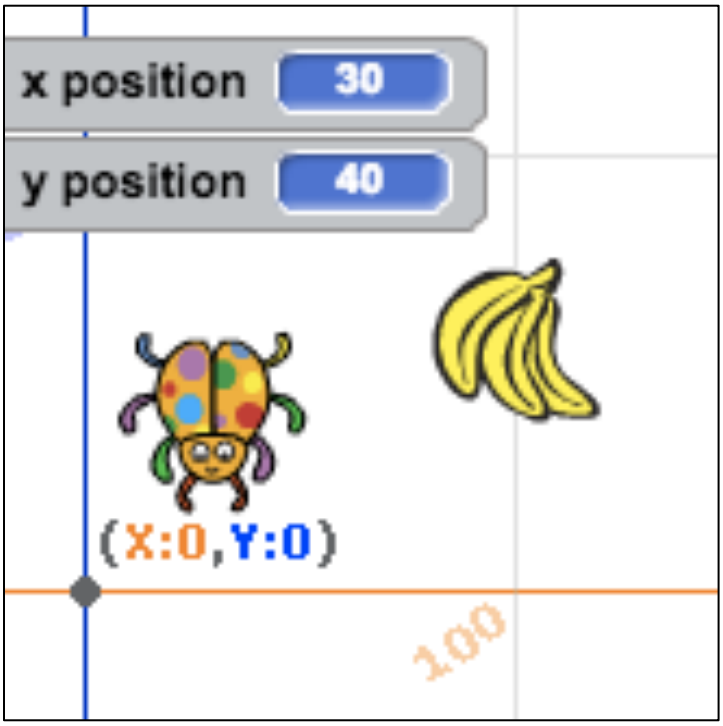
X & Y BUG

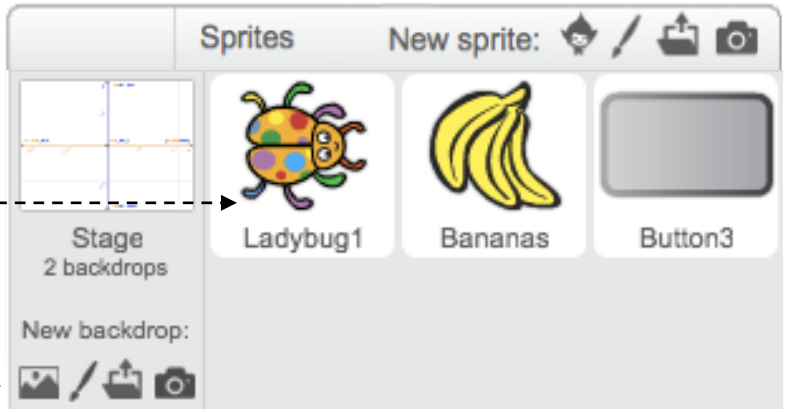
HOW CAN YOU USE X & Y COORDINATES TO MAKE AN INTERACTIVE GAME?

Add sprites, costumes, backdrops, and sounds to create an interactive Scratch game – a project that helps other people learn more about X & Y coordinates and how to use them when making video games.



START HERE

- ❑ Delete the cat Sprite.
- ❑ Add the 'Ladybug1' Sprite, a food Sprite, & a button.
- ❑ Add the 'x/y-grid' background to the Stage.

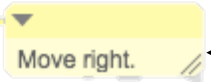


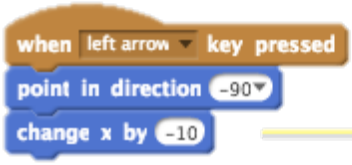
ADD YOUR CODE!

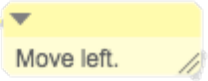
Make your bug sprite interactive by adding scripts that have the sprite respond to key presses.

Checking the X & Y boxes will show the bug's position on the stage.

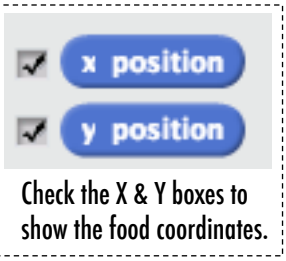
control + click on blocks to leave code comments that explain what your code actually does.







CHALLENGE!
What blocks will you need here to move your sprite down?



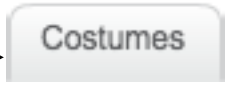
Check the X & Y boxes to show the food coordinates.

Broadcasts are like instructions that you can name.

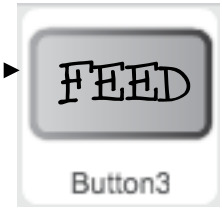
Click the ▼ symbol in the broadcast block and make a 'new broadcast' named "moveFood".

Using the Pick Random block is like rolling dice. Here, we pick a random number and then multiply it by 10.

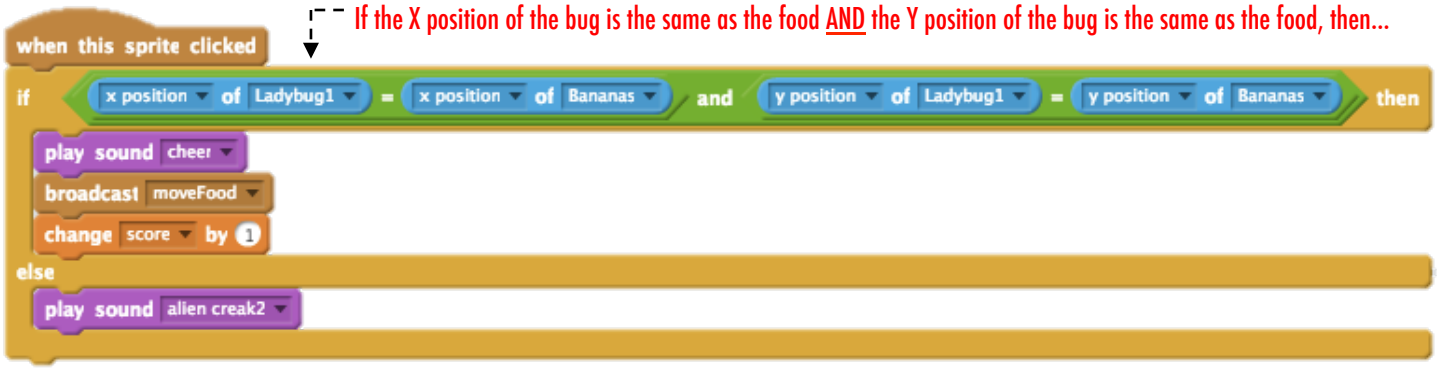
We can make the food move to more places on the stage if we replace the 0's with negative numbers like –15



You can add text to the button by using the text tool in the costumes tab.



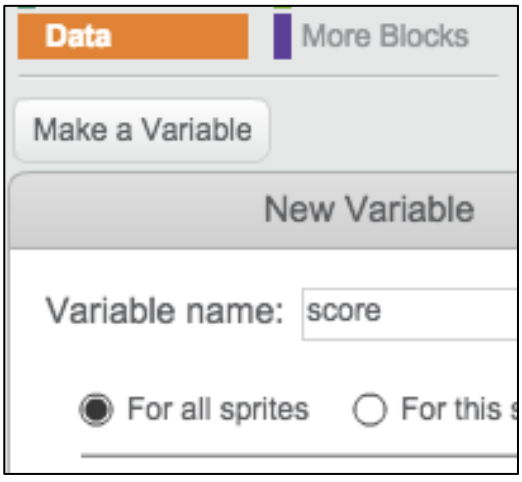
If the X position of the bug is the same as the food AND the Y position of the bug is the same as the food, then...

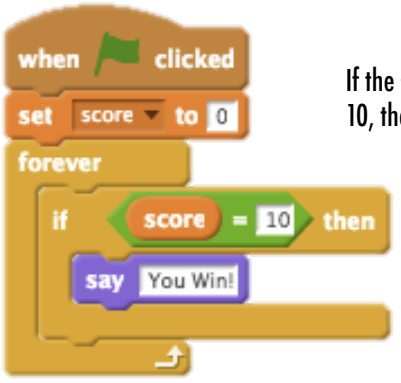


Now let's add a "Victory Condition", or a way to win the game. First we have to make a variable and name it 'score'.

Click 'Make a Variable'

Type 'score'





If the score is equal to 10, then say "You Win!"

THINGS TO TRY

- ❑ Use a hide block to make the food invisible.
- ❑ Use costumes to change how your sprites look.
- ❑ Add code comments on each stack of blocks.