Scratch
Animated Greeting Cards

What You Should Know…

The History of Greeting Cards

We've all given and received many greeting cards – birthday cards, holiday cards, thank-you cards. The average American receives 20 greeting cards each year. In fact, Americans buy over **7 billion** greeting cards annually (and that doesn't even include e-cards)!!

The custom of sending greeting cards goes back to ancient Chinese New Year traditions and to ancient Egypt. By the early 15th century, Europeans were exchanging greeting cards made from handmade paper.

In the mid-19th century, advances in printing and paper production technology made greeting cards much more affordable. And with the introduction of the postage stamp in 1840, the practice of sending greeting cards grew quickly!

The World's First Known Christmas Card – created by John Calcott Horsley for Sir Henry Cole – 1843

Valentine Card - 1909

What You Should Know…

The History of Greeting Cards

Lewis Prang, a German immigrant, is generally credited with starting the American greeting card industry when he began printing and selling Christmas cards in the1870's.


Louis Prang

Today there are more than 3,000 greeting card publishers in the United States, ranging from small family businesses to large publishing corporations, and greeting cards are sold in approximately 100,000 retail stores!

E-Cards represent the fastest growing segment of the greeting card industry with over 500,000 e-cards sent annually worldwide.

What You Should Know…

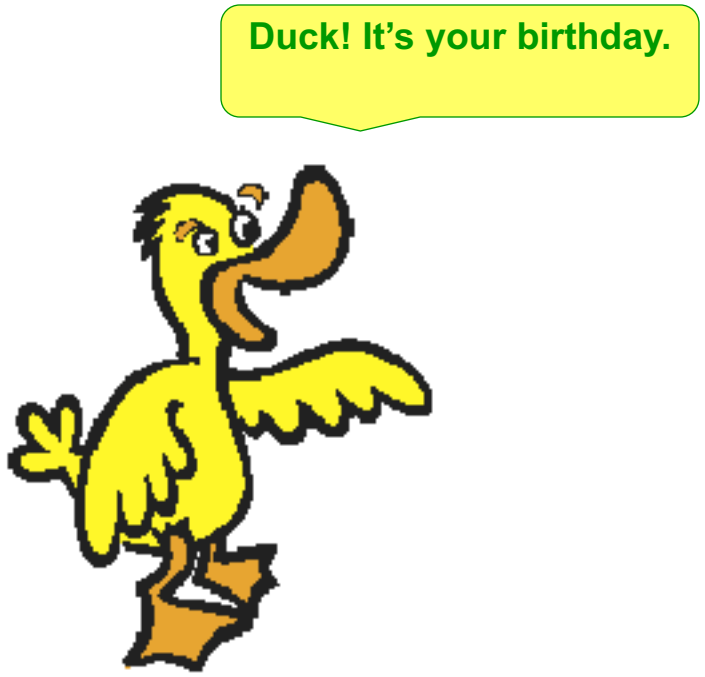
Duck! It's Your Birthday!!

Let's explore how to create a simple animated birthday card using Scratch!

First, let's decide the features of the card, then let's use the software to make it.

In this example, we'll make a humorous birthday card. Let's have a duck quack as it crosses the stage. Also, let the duck say, "Duck! It's your birthday".

Let's also add a background for the stage.

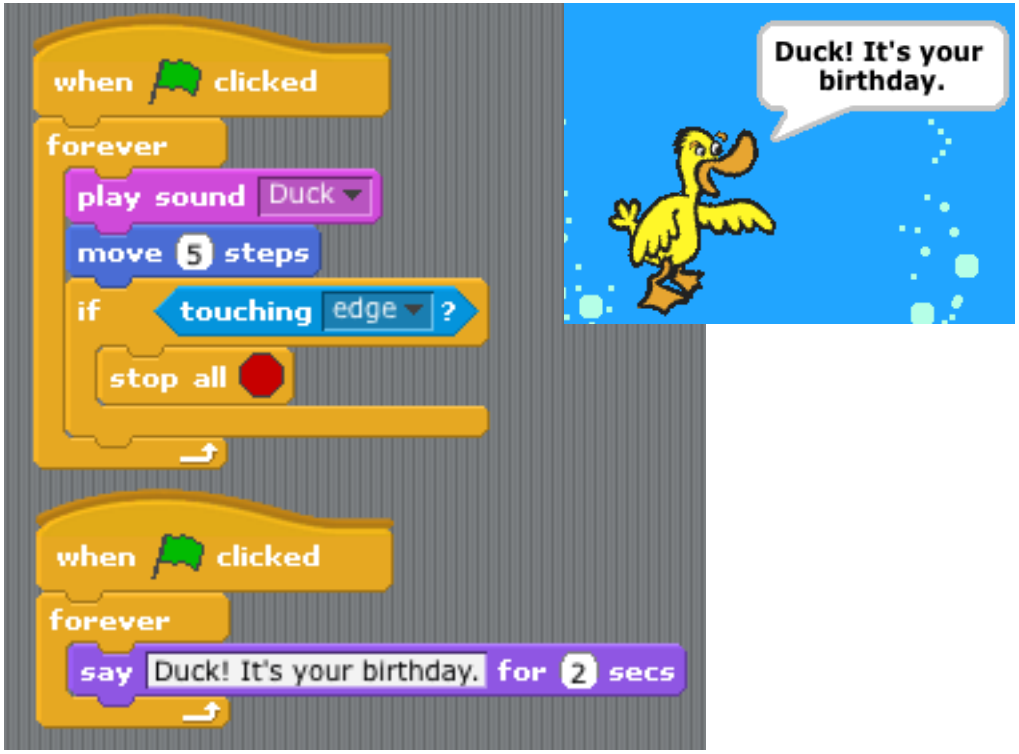


What You Should Know…

Duck! It's Your Birthday!!

The top set of blocks controls the behavior of the duck and the sounds.

The bottom set of blocks controls text bubble.

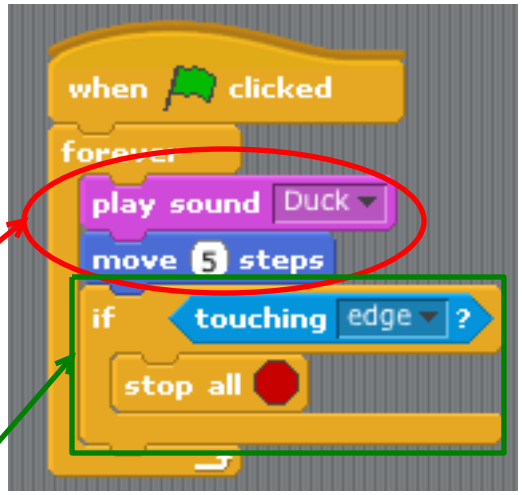


What You Should Know…

A Closer Look

Let's examine each set of blocks carefully. Examining the work of others will help you to solve similar challenges.

This stack of blocks has two parts. The first part tells the Sprite to play the sound called, "Duck" and move 5 steps.



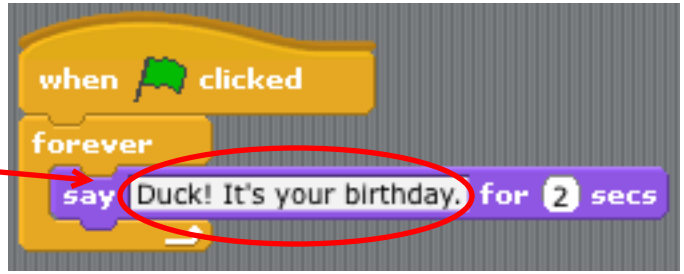
The second part of the stack tells the Sprite what to do when it hits the edge of the stage. In this case, the Sprite stops all behaviors.

To get the computer to make the sound, "quack" for the duck, open the sound tab and select the Import button.

What You Should Know…

A Closer Look

The bottom stack of blocks is much simpler. It assigns the words that appear in the text bubble

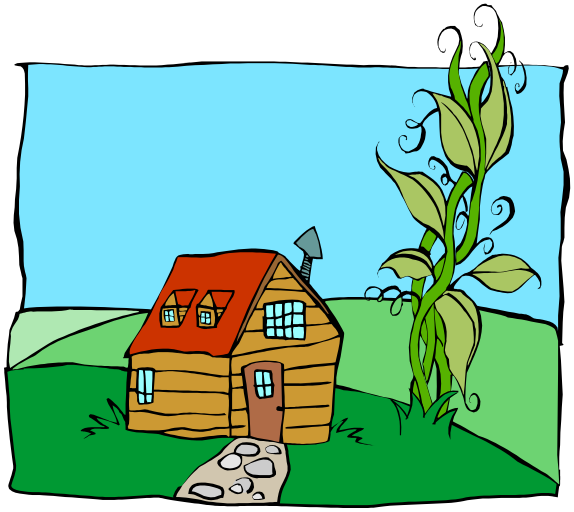


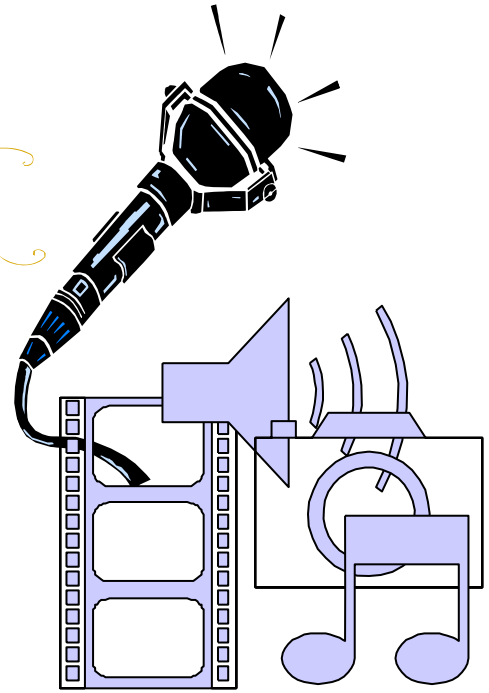
What You Should Know…

Importing Images

As you get more creative with Scratch projects like animations, games and greeting cards, you'll probably want to use your own characters for Sprites or your own pictures for stage backdrops.

Let's learn how…

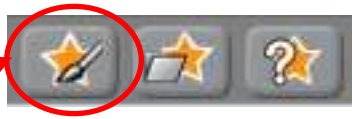


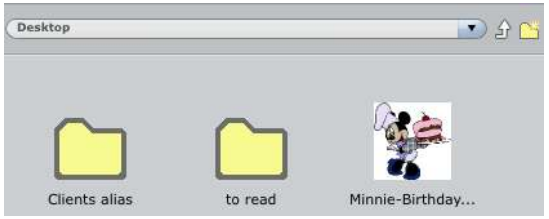


What You Should Know…

Importing a Sprite

1. Select the Paintbrush button.
2. Click the Import button.
3. Browse to the location of the image you want for your new Sprite.
4. Double click on the image.
5. The image should appear on the Paint Editor screen. Click “OK”
6. Your image appears as a new Sprite!

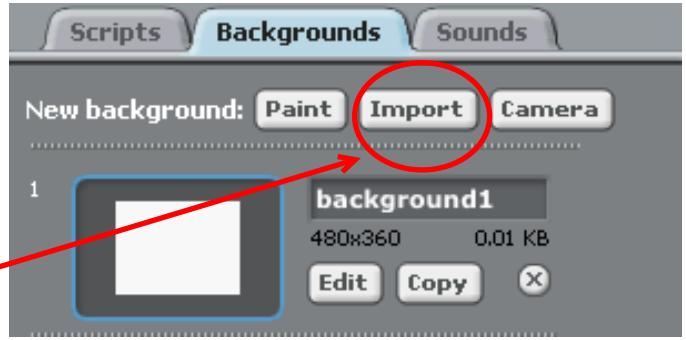


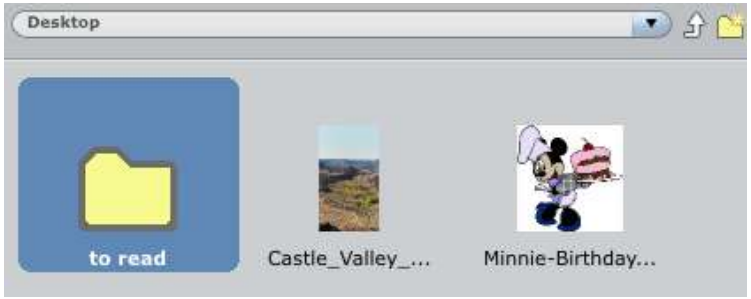


What You Should Know…

Importing a Background

1. If it's not visible, double-click anywhere on the stage area to launch the Background tab.
2. Select the Background tab.
3. Click the Import button.
4. Select the location of your new image.
5. Double click on the image.
6. The image should appear in the Background menu and as a new Stage.





What You Should Know…

Programs only do what they're told

"It didn't work!!" You'll find yourself saying that a lot as you work with Scratch (or, for that matter, any other method of computer programming).

That's because computer programs are rather "simple-minded"; they do exactly what they're told – no more, no less. They don't know what you *want* your program to do, they can only perform each instruction literally and in the exact order given.

When creating a program with a complex set of instructions, you are bound to miss an important step or have something in the wrong order.

When this happens (and it will), you need to ***debug*** your program. The most important element of the debugging process is always the same: ***Don't get discouraged, you can fix this!!***

What You Should Know…

Debugging Your Program

Here are some important things to keep in mind:

- You're not alone! Virtually every computer program must be debugged. In fact, software companies often continue debugging for years after software is released to the public!
- Your program *IS* working; it's performing each step exactly as instructed, it's just not doing what you expected! So all you need to do is find the instruction that's causing the unexpected behavior. Most of the time the problem comes down to something simple. A problem with a single instruction can often lead to dramatically unexpected behavior.

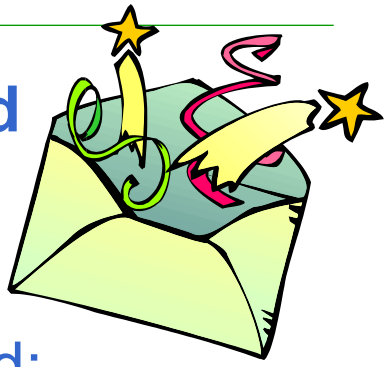
First, think about *how* the program is behaving unexpectedly – often that will be your best clue to the problem.

Second, carefully examine each program step in order to identify the problem instructions.

If you have multiple program modules, try playing each one separately to see if that helps you find the problem.

Don't give up!
With Scratch everything you need to solve the problem is right in front of you!

Do It!



Now it is your turn to make your own animated greeting card in Scratch!

Include some of the following features in your card:

- Blocks from the following: Motion, Sound, Control, and Sensing
- Sprites from the Scratch collection or import your own
- Backgrounds for the stage from the Scratch collection or import your own

Do It!

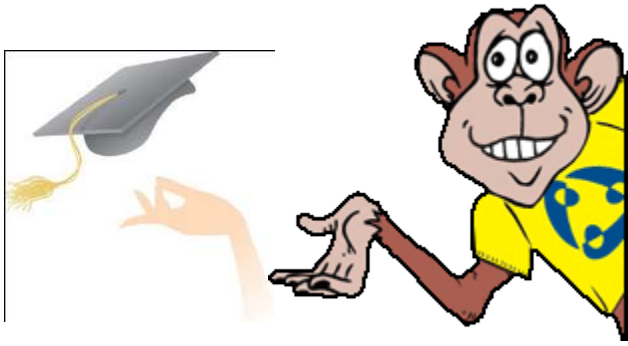
Need Greeting Cards Ideas?

- Get the duck to drop a birthday cake onto a second Sprite

Special Days: Mother's Day, Father's Day, Birthday

Holidays: New Years, Easter, Chanukah, Halloween, Valentines day, Thanksgiving, Christmas

General Cards: Friendship, Thank You, Get Well, Congratulations



Assignment…

- Design and create an original greeting card in Scratch.
- Use blocks from Motion, Sound, Control, and Sensing. Change backgrounds at least once, and use more than 1 sprite with at least one of the sprites having multiple costumes.
- Save in your directory as: ***Greeting card Your Name***. **Important: Be sure to save correctly in scratch. Look for the X at the very bottom of the drop down arrow to change to your directory.**
- **Part of your final exam will be a Scratch project. This assignment is to review Scratch.**