



Video Tutorial

Scratch Basics Episode 10: Coding Backdrop Changes

Level: Kindergarten–Grade 12 • **Topic:** Art & Design, Computer Fundamentals, Digital Storytelling, Game Design • **Subjects:** Arts, Computer Studies, English, Language, Mathematics, Science & Technology

*If you are looking for an accessible online version of this content, please visit the **Pinnguaq website** (link: <https://pinnguaq.com/learn/scratch-basics-episode-10>).*

About the Author

Kayla Blacquiere

Kayla is currently one of the educators in the Lindsay Makerspace who helps plan, design and deliver curriculum for a variety of programs. She has a long history of working with children in many different areas such as gymnastics, cheerleading, summer camps and public schools. She graduated from The University of Western Ontario with a BA and specialization in Nutrition and Families and also recently completed a BEd at Ontario Tech University in the Primary/Junior division. Her recent studies have led her to discover a love and interest for LEGO robotics, coding and STEAM education.



Introduction

Scratch is a basic coding language that uses a 'building block' style coding to create animated stories, interactive games, simulations, and beautiful artwork. In using Scratch, learners will be introduced to basic coding concepts and develop their computational thinking skills while

bringing their own ideas to life. In this series, the basics of Scratch will be introduced to provide learners with the foundational skills required to begin creating in Scratch.

Scratch makes it easy for learners who are just starting out by organizing the types of code you can use into categories. The code blocks are grouped by the following categories: **Motion, Looks, Sound, Events, Controls, Sensing, Operators, Variables** and **My Blocks**. These code blocks can be pieced together in the **Code Area** like placing jigsaw puzzle pieces together. Both the **Code Area** and the **Stage** are visible at the same time which allows learners to run code, test, debug and view their creations.

In this episode, learners will explore coding a Backdrop to Change.

Vocabulary

The following vocabulary definitions are from the **Scratch Wiki** (link: https://en.scratch-wiki.info/wiki/Scratch_Wiki_Home).

- **Backdrop (Scratch)** - A backdrop is an image that can be shown on the Stage.
- **Block Palette (Scratch)** - The Block Palette is the area on the left of the screen when the Code button is opened. On the left, there is an area that contains the nine sections of blocks in Scratch. To the right of that, there is an area that contains blocks that can be dragged into the Code Area to make code.
- **Code Area (Scratch)** - The Code Area is the large empty space to the right of the Block Palette. It is an area for storing blocks that run the project. Blocks can be dragged from the Block Palette into the Code Area and arranged to form scripts.
- **Paint Editor (Scratch)** - The Paint Editor is Scratch's built-in image editor. The Paint Editor allows Scratchers to create their own sprites and backdrops using it or adjust to any existing sprites and backdrops.
- **Sprite (Scratch)** - Either user-created, uploaded, or found in the sprites library, are the objects that perform actions in a project.
- **Sprite Pane (Scratch)** - It is a white area located beneath the Stage where all sprites present in a project can be easily accessed to modify or inspect.
- **Stage (Scratch)** - The stage is the area where the sprites are and perform their actions. It is located in the top of the area to the right of the Code Area.

Materials

- Scratch 3.0 **Online** (link: <https://scratch.mit.edu/>) or **Desktop** (link: <https://scratch.mit.edu/download>)

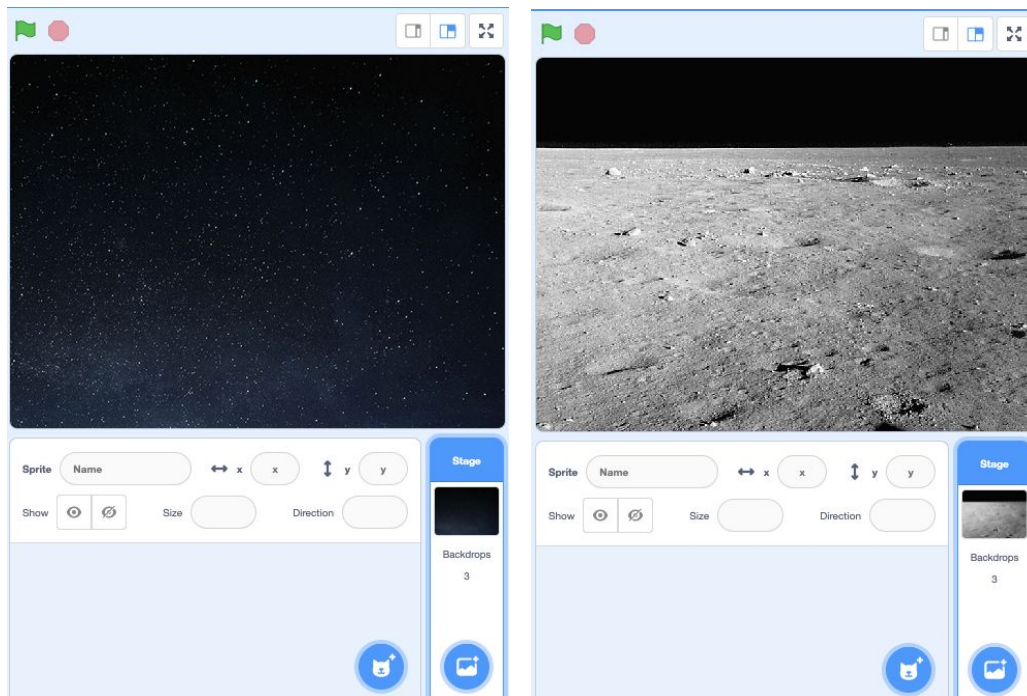
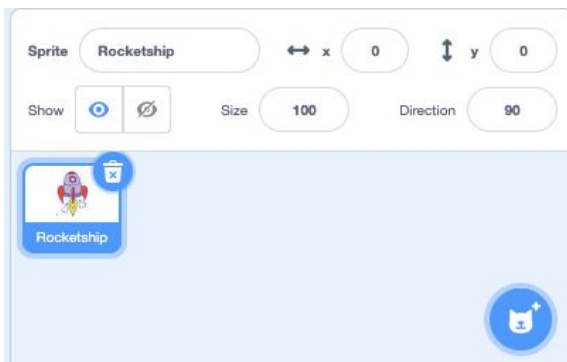
Computer Activity

This episode will take you through the steps of making your **backdrop** change on the **Stage** using code.

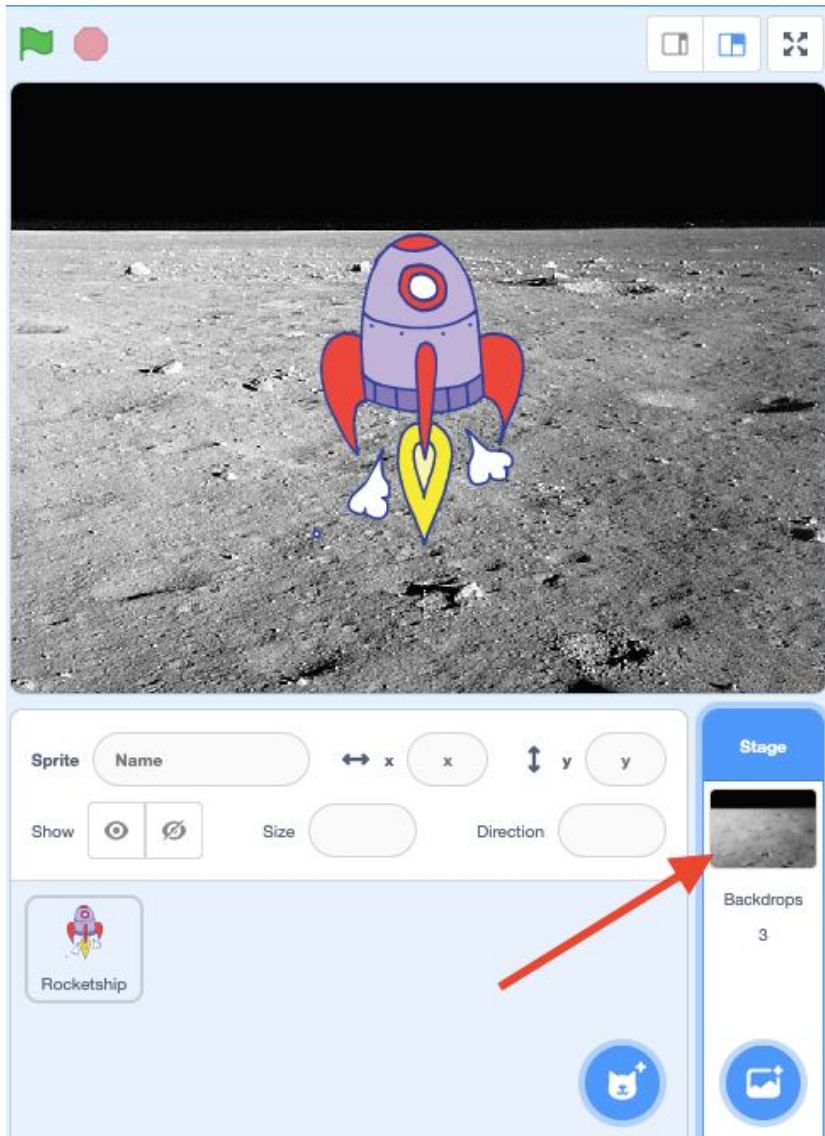
Video Link: <https://youtu.be/X6coi3SVfwU>

Add Your Sprite and Backdrops

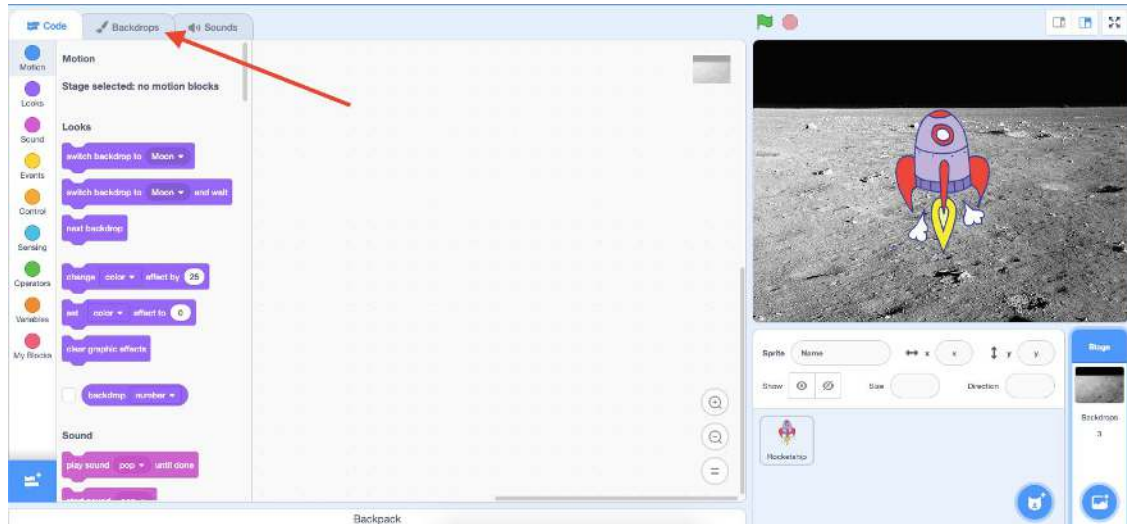
1. Choose a **sprite** and two (2) **backdrops** for your project that you want to code to switch on the **Stage**. For this episode, I have selected the **Rocketship** sprite, **Stars** backdrop and **Moon** backdrop.



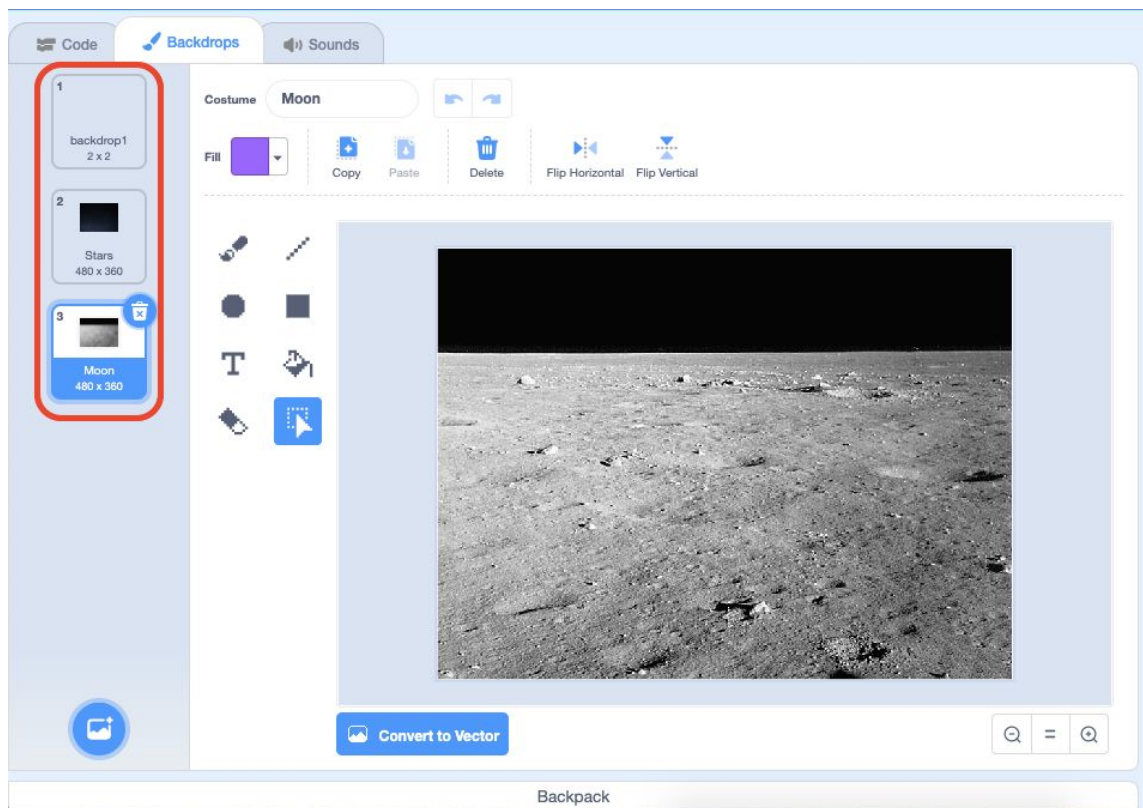
2. Once you have selected your two **backdrops**, click on the image of the **backdrop** below the **Stage** to the right of your **Code Area**. This will allow you to code your **backdrop**.



3. Check to make sure that both **backdrops** you selected are available to use. To do this click on **Backdrops** just above the **Block Palette** to the left of your **Code Area**.

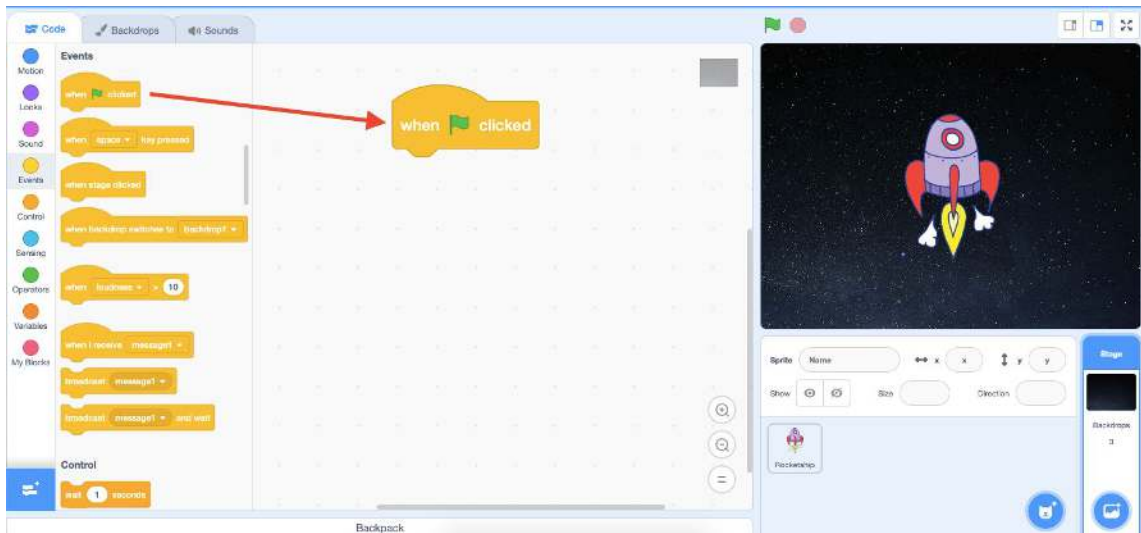


You will see all selected **backdrops** to the left of your screen in the **backdrops Paint Editor**.

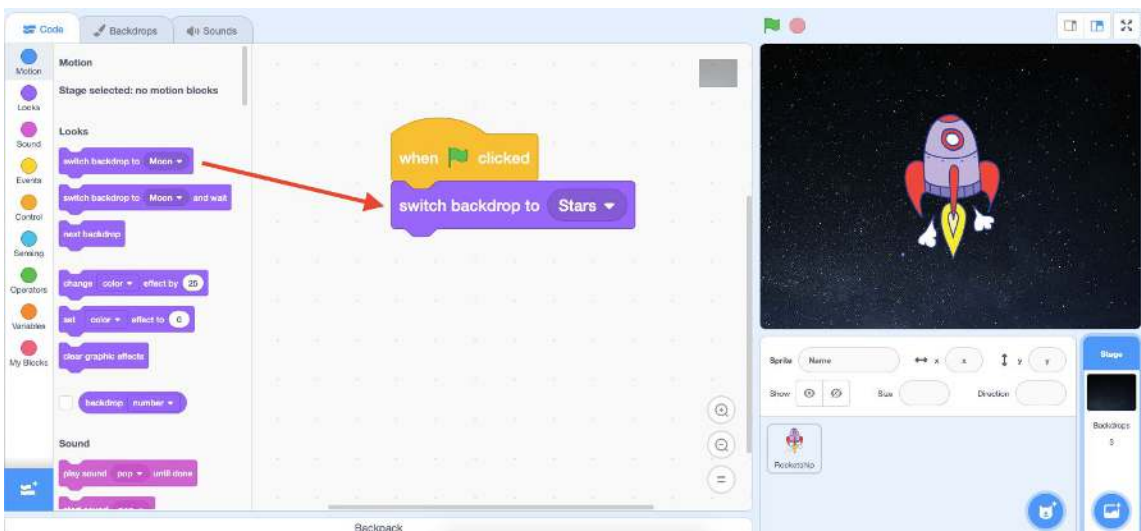


Coding Your Backdrop to Change

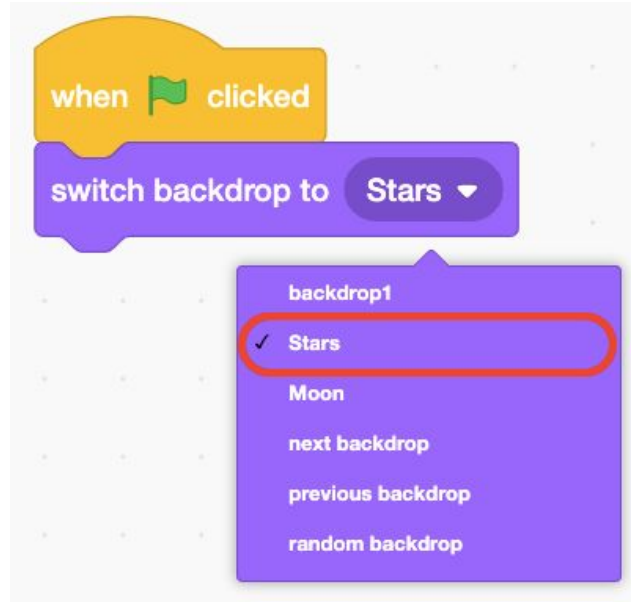
1. Click and drag a “when green flag clicked” block from the **Events** category in the **Block Palette** onto your **Code Area**. This will tell your code to run when the green flag above the **Stage** is clicked or when the block itself is clicked in the **Code Area**.



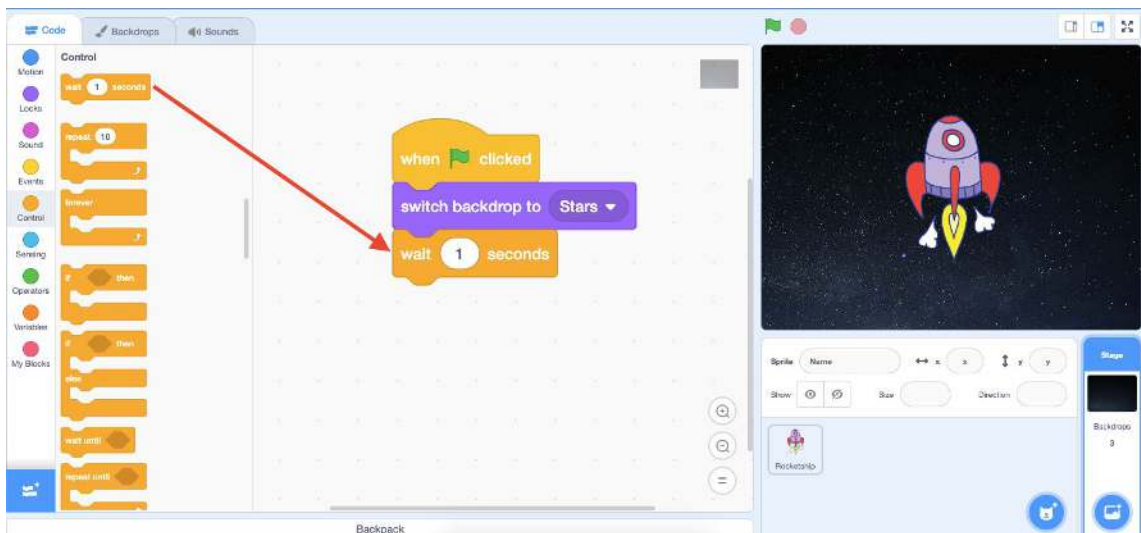
2. Click and drag a “switch backdrop to...” block from the **Looks** category in the **Block Palette** onto your **Code Area**. Attach this block to the “when green flag clicked” block.



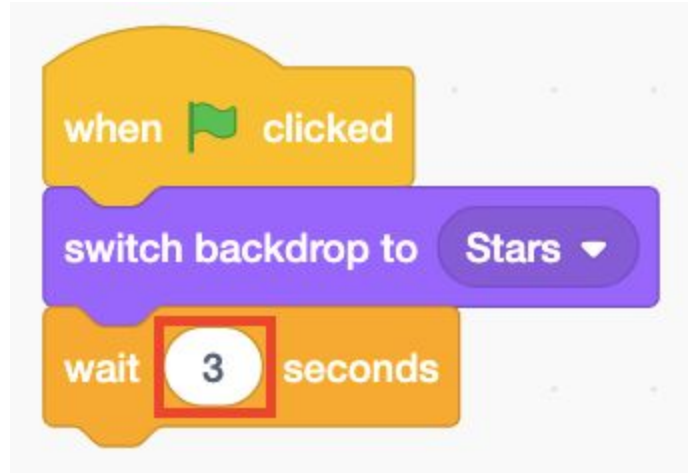
3. Use the drop-down menu to select which backdrop you want your game/story to begin with every time.



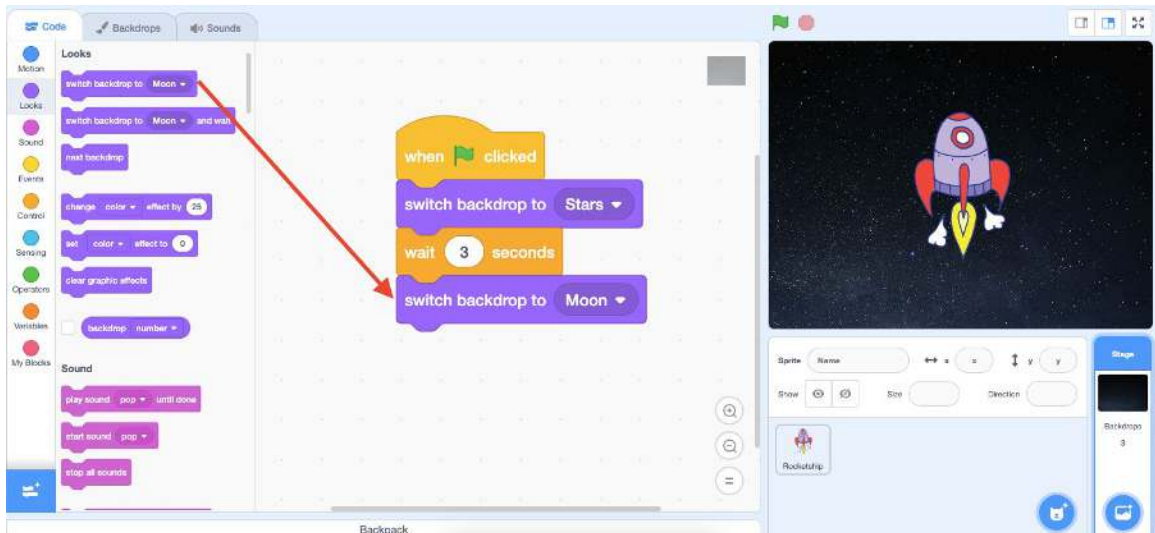
4. Click and drag a “wait 1 seconds” block from the Control category in the Block Palette onto your Code Area. Attach this block to the “switch backdrop to...” block.



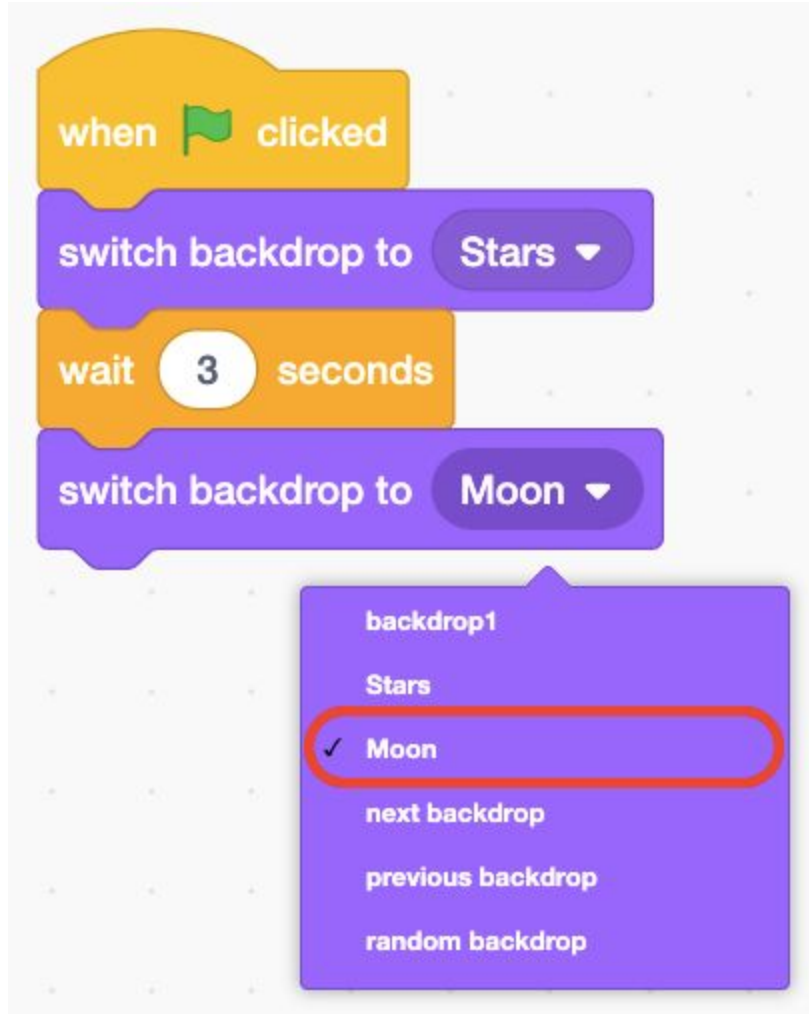
You can change the number inside the white bubble by clicking on it and typing the number of seconds you wish inside. For this game/story, I have set the seconds to three because I want the Stars backdrop to show for three seconds before it switches to the next backdrop I select.



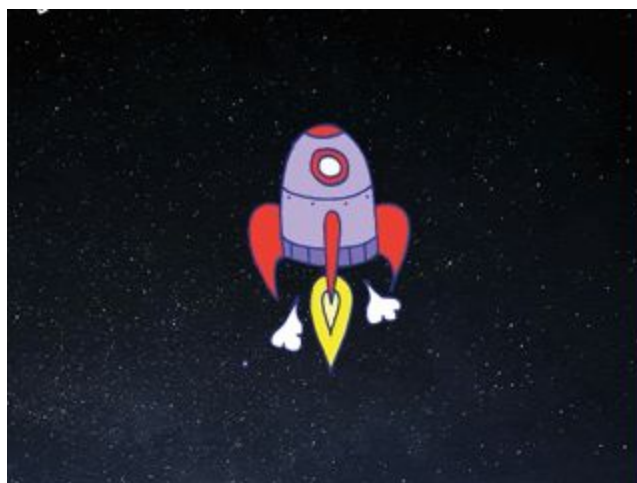
5. Click and drag a “switch backdrop to...” block from the Looks category in the Block Palette onto your Code Area. Attach this block to the “when green flag clicked” block.



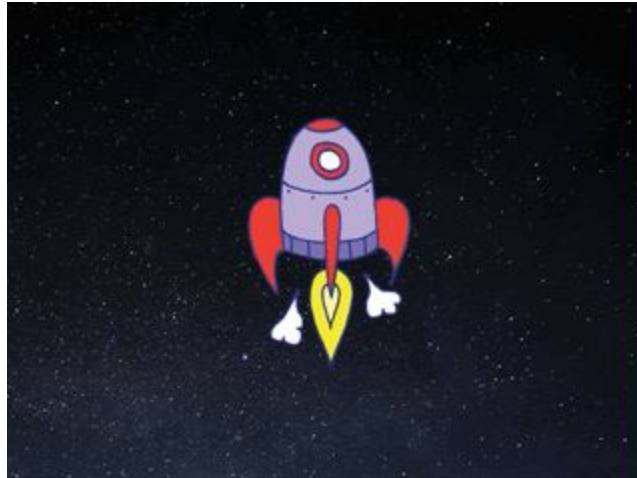
6. Use the drop-down menu to select which backdrop you want your code to switch to after the first backdrop and wait block. For this game/story I selected the Moon backdrop to be the second backdrop in this code.



7. Test your code! Click on the **green flag** at the top of your **Stage** or click on the green flag block in your **Code Area**.



Can you use the sprite and two backdrops to retell a story or event that has happened? As an example, for this episode I might tell a story about the first time humans touched down on the moon! I could provide facts by coding the rocketship to talk or I could add a second sprite that uses either the record voice option or speech bubble option to tell us all about the first landing!



Conclusion

In this episode you learned basic Scratch concepts such as how to code a **backdrop** to change on the **Stage**. What will you create now that you have learned a few Scratch Basics?

We want to see the awesome things you're creating! Take a photo or video and share your work with us by emailing media@pinnguaq.com or tagging @pinnguaq on [Facebook](#), [Twitter](#), or [Instagram](#). Don't forget to include the hashtag #LearnWithPinnguaq! You can also upload your project to the Pinnguaq Studio (<https://scratch.mit.edu/studios/26567463/>).

Resources

- Scratch Wiki (link: https://en.scratch-wiki.info/wiki/Scratch_Wiki_Home)
- Scratch Basics Episode 1: Introduction to the Scratch Working Environment (link: <https://pinnguaq.com/learn/scratch-basics-episode-1>)
- Scratch Basics Episode 2: Deleting a Sprite, Adding a Sprite & Adding a Backdrop (link: <https://pinnguaq.com/learn/scratch-basics-episode-2>)

- **Scratch Basics Episode 3: Make Your Sprite Say Something** (link: <https://pinnguaq.com/learn/scratch-basics-episode-3>)
- **Scratch Basics Episode 4: Adding Sound** (link: <https://pinnguaq.com/learn/scratch-basics-episode-4>)
- **Scratch Basics Episode 5: Make Your Sprite Fly Around** (link: <https://pinnguaq.com/learn/scratch-basics-episode-5>)
- **Scratch Basics Episode 6: Gliding From One Point to Another** (link: <https://pinnguaq.com/learn/scratch-basics-episode-6>)
- **Scratch Basics Episode 7: Moving Right and Left** (link: <https://pinnguaq.com/learn/scratch-basics-episode-7>)
- **Scratch Basics Episode 8: Moving Up and Down** (link: <https://pinnguaq.com/learn/scratch-basics-episode-8>)
- **Scratch Basics Episode 9: Coding Costume Changes to Animate Your Sprite** (link: <https://pinnguaq.com/learn/scratch-basics-episode-9>)