



VOCABULARY

Scene: The stage at a particular time

Show: Makes a sprite appear or reappear on the stage

Hide: Makes a sprite disappear from the stage

Change Background: Change the background picture for the stage



ACTIVITY GOAL

In this project, you will make scene changes to show how a flower grows.

BACKGROUND

To make **scene** changes you must use a few different **blocks** that will program not only your **sprite**, but also the **stage**.

Scenes

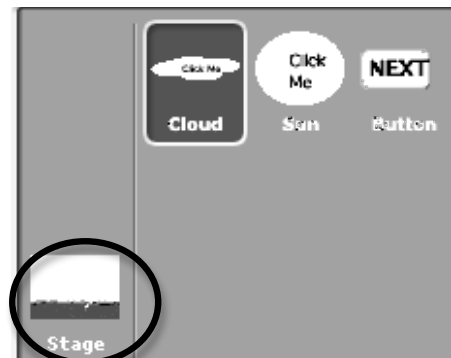
Like a scene in a play, movie, or game. The **scene** may change when the character travels to a different location or moves to a higher level. Different **scenes** are distinguished by which **sprites** are visible and what the **background** looks like.

Every time a **scene** changes you should think about:

1. What's going to happen?
2. What might the new **background** be?
3. What **sprites** will appear (show) that weren't there before?
4. What **sprites** will disappear (hid) that were shown before?

Step 1: Change the background.

The **backgrounds** are controlled by the sprite called **Stage** found in the **sprite list**. By using the **block** below in the **Stage's script**, you can change the way the **background** looks.



Step 2: Show and Hide sprites

The **blocks** to the right determine which **sprites** are showing on the **stage** at a particular time.



Step 3: Initialize sprites when you click the green flag

1) If you change the **background**, use

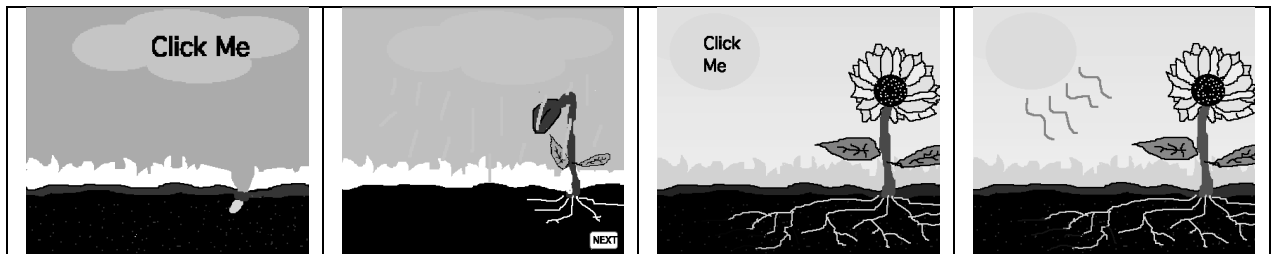


2) If you hide or show a **sprite**, use



EXPLORE

Your teacher will play the completed Plant Growing project for you before you begin. This is the sequence of **scenes** you are going to copy.



- 1) Open the project **PlantGrowing**. Click on the Green Flag.
- 2) Click on the cloud that says "Click Me".

A **scene** change is supposed to happen, but it doesn't. What three changes should have happened? Write the three things below.

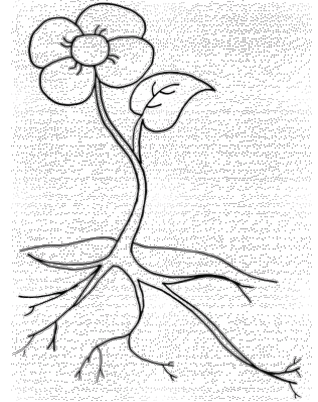
1. _____
2. _____
3. _____

- 3) Click on the **costumes** tab for each **sprite**. Look at the **costumes** you can use.
- 4) Click on the **stage** in the **sprites list**. Click on the **background** tab.
- 5) Remember, you can use the **broadcast & receive blocks** to let the other **sprites** know about a **scene** change.

You will need to use all of these things to create the story with the **scene** changes you saw earlier.

PROGRAMMING CHALLENGE: Plant Growing

Your goal is to program the sprites, costumes, and backgrounds to make the flower grow like the example project.



PLAN

Step 1: Open the project **PlantGrowingExample**. Click the **green flag**. Write what happens below.

- o When I click on the cloud these changes happen...

- o When I click on the "Next" button these changes happen...

- o When I click on the Sun these changes happen...

CREATE

Now it is time to create your project! Decide which **blocks** you will need to make all of the changes that happen. You will use a lot of things you learned in the earlier activities.

Below are some examples of types of **blocks** you might use for this project.



Step 1: Match the order of the **scenes** with the example project. Make changes to the **stage**.

Step 2: Make the changes happen when the correct **sprites** are clicked. **Broadcast** and **Receive** messages between certain **sprites**.

Double-Check: Did you remember everything?

1. Does the **background** for each **scene** match the example project?
2. Do the correct **sprites** show up for each **scene**, and do the ones that shouldn't be there disappear?
3. Do the **scene** changes happen when you click on the correct buttons on the **stage**?

IMPROVE

If you finish early, try improving your project by doing the following:

1. Make the cloud rain for a while, then stop raining and then move off screen. Which **blocks** would you use to make this happen?

2. Make the sun switch between its two **costumes** a few times. Remember that you need to include a Wait **block** between each **costume** change.
3. Make the sun get bigger when it changes to the **costume** with the rays coming out.
4. Are there any other changes you could make to improve your project? Describe them below.
