

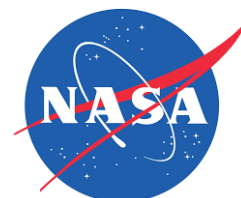
# STUDENT ACTIVITY SHEETS



THE GLOBE PROGRAM



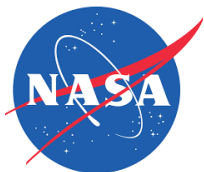
**BSCS**  
SCIENCE LEARNING





---

© 2019 University Corporation for Atmospheric Research. *All Rights Reserved.*



---

This publication was supported by NASA under award #NNX17AD75G.



# TABLE OF CONTENTS



	<b>1</b>	What causes storms to form?	2-4
LEARNING SEQUENCE 1	<b>2</b>	What causes storms to form?	6-8
	<b>3</b>	How does temperature relate to cloud formation?	9-13
	<b>4</b>	What is different about a sunny day and a stormy day?	14-17
	<b>5</b>	How does air move and change when a storm is forming?	18-22
	<b>6</b>	Can we identify the best conditions for storms?	23-25
LEARNING SEQUENCE 2	<b>7</b>	What other types of storms cause precipitation?	27-28
	<b>8</b>	How is air changing before, during, and after a cold front?	29-31
	<b>9</b>	What causes precipitation along a cold front?	32-38
	<b>10</b>	What causes fronts to move?	39-41
	<b>11</b>	What could cause a front to stall?	42-44
LEARNING SEQUENCE 3	<b>12</b>	How do storms move around the world?	46-48
	<b>13</b>	Why is it hotter at the equator than other places on Earth?	49-52
	<b>14</b>	How and why does air move in the tropics?	53-57
	<b>15</b>	When air and storms move, why do they curve?	58-60
	<b>CULMINATING TASK: Challenge 1</b>	California Storm	62-64
	<b>CULMINATING TASK: Challenge 2</b>	Where's the Snow?	65-68
	<b>CULMINATING TASK: Challenge 3</b>	We're Warning You	69-72

## LESSON 1

LESSON  
**1**

What do we know about storms?

 LESSON  
1

# What do we know about storms?

**STEP 1: What happens in the atmosphere to cause a storm?**

Your class will watch a video about a storm that happened in Colorado and how the precipitation affected the city of Boulder, Colorado. After watching the video, think about what you know about the water cycle and how storms form. What do you think happens in the atmosphere to cause rain, snow, and other types of precipitation? Write your ideas below.

**STEP 2: What are my experiences with storms and precipitation?**

Think about a time when you experienced a storm. Answer the questions below.

1. Was it a rainstorm, a snowstorm, or some other type of storm?
2. What time of year did it happen?
3. Did the storm last for a few hours or a day or more?
4. How did the precipitation from this storm affect your community?



LESSON  
**1**

## What do we know about storms?

### **STEP 3: Represent what you know about storms.**

What caused the rain in the Colorado storm you saw in the video? Draw and label a picture in the box below to answer this question. Your picture is a model of how this storm happened.

- Your picture should show all the factors that led to rain.
- Include labels in your drawing that explain how each factor led to rain.
- Be prepared to share your thinking with the class.



LESSON 1

# What do we know about storms?



## STEP 4: How were my ideas similar or different from my peers' ideas?

Describe your model to the other students in your group.

SIMILAR IDEAS	DIFFERENT IDEAS

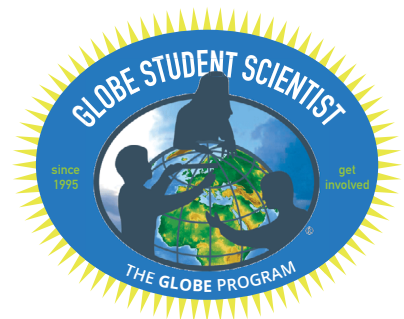
## STEP 5: What questions do I have about storms and precipitation?

What do you wonder about how storms form? List questions that you have about storms and precipitation.

# CONGRATULATIONS,

you are now part of the GLOBE community!

Now that you have completed Lesson 1 of GLOBE Weather, you are ready to be an active GLOBE student scientist.



GLOBE stands for Global Learning and Observations to Benefit the Environment. GLOBE is an international science and education program that includes students and scientists from all over the world. You now have the opportunity to participate in GLOBE along with other students interested in learning more about the environment through conducting research on topics that are interesting to you. GLOBE has many resources and opportunities for scientists of all ages. Check out how to get involved by viewing a short video (4:26 minutes) on the GLOBE website: <https://www.globe.gov/do-globe/for-students/be-a-scientist>.