

## **Vortex: Scene 1**

Margarite couldn't wait to see Marc after school. He was so cute! She wanted to give him a note she had written, but she was nervous. From her front porch, she could see his skateboard and BMX bike in the yard next to his mom's yellow VW bug. She took a deep breath and started over to his house.

Walking across the street, Margarite looked at the sky. The afternoon light seemed to be a strange greenish color. She did not hear birds singing or feel any breeze.

Before she got far, she felt a change in the air. A powerful wind came rushing past, and big, fat raindrops plopped down all around her. Margarite turned back to her house to get an umbrella.

"Ow!" she said, as something hard hit her in the head and arm. The rain had turned to hail; marble-sized white hail was dropping all around and bouncing off the ground at her feet. She ran the last few steps up to the porch and into her house.

"Oh, this is not good," she thought to herself. By now, Margarite had a hypothesis about the strange weather outside.

She turned on the TV, and looked for her local news channel.

## Vortex: Scene 2

Margarite clicked on the TV and Channel 5 WAGA's Ken Cook stood in front of a weather map showing metro Atlanta. The TV picture and sound crackled in and out:

*“ – as you can see, Dekalb and Fulton counties lie directly in the path of this supercell. Warm, humid air ----[static]---- slamming into the cold, dry air coming east over the Rockies. Updrafts of the warm air can cause the two air masses to start spinning in a vortex. ----- [static] -----”*

“Come on, TV!” Margarite whacked the TV a few times to try to get a better picture. It didn't help.

*“--- Lightning increases the risk of tornadoes, because of the updrafts, or convection currents, that they cause ----[static]---- . . . tornado warning in effect for Dekalb County so please take precautions for your safety . . .”*

# SSSSSBAM!!!

Light filled the air as she heard a crackling explosion. She looked out the window and saw a tree in Marc's yard flaming in the midst of the hail falling from the sky.

In the instant before she turned, Margarite saw her neighbors' skateboard, red bike, and yellow VW bug get sucked up into a twisting swirl of air. She ran to the bathroom, grabbed the safety supplies she had prepared last year for a school assignment, and got into the bathtub.

## Summary of Learning Issues – Scenes 1 & 2

Here are some learning issues your team may have identified. Feel free to think of more!

who Work with your facilitator to make sure everyone has learning issues to research.

\_\_\_\_\_ vortex

\_\_\_\_\_ what is wind?

\_\_\_\_\_ what causes wind?

\_\_\_\_\_ how does rain change to hail?

\_\_\_\_\_ describe a hurricane

\_\_\_\_\_ describe a thunderstorm

\_\_\_\_\_ describe a tornado

\_\_\_\_\_ supercell

\_\_\_\_\_ humid (air)

\_\_\_\_\_ updraft, convection current

\_\_\_\_\_ tornado warning (vs. tornado watch)

\_\_\_\_\_ how does an air mass get to be warm or cold, humid or dry?

\_\_\_\_\_ what are the best safety precautions to take before and during a tornado?

Other learning issues from Scenes 1 & 2 in your group:

who

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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\_\_\_\_\_

\_\_\_\_\_

Now, go research your learning issues & bring good info back to the group!

## Learning Issue Report

**Learning issue:** \_\_\_\_\_

\_\_\_\_\_

The information I found is:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

The source of this information is (web address, book, textbook pages):

\_\_\_\_\_

**Learning issue:** \_\_\_\_\_

\_\_\_\_\_

The information I found is:

\_\_\_\_\_

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\_\_\_\_\_

\_\_\_\_\_

The source of this information is (web address, book, textbook pages):

\_\_\_\_\_

### Vortex: Scene 3

An hour after Margarite climbed out of the bathtub, she was standing outside with her family and neighbors. The sun was shining down on mud, fallen tree branches, and litter blown into their yards.

“Looks like we have a few shattered windows and some damage to the rain gutters, but the house is in pretty good shape,” said Margarite’s mom. “The main thing is that no one got hurt.”

“That’s the truth!” said Marc’s mom. “I’m so glad these kids prepared tornado safety kits last year in school! Marc knew just what to do.”

“Dude! look at our tree!” Marc said. “It is completely torched! I’ll bet the lightning that struck it is what caused the updraft that carried off the car and my bike!”

Following the line of destruction caused by the tornado, they found the little yellow bug flipped on its back and smashed into a neighbor’s tool shed about 100 meters away. Marc’s bike was caught in the branches of a tree about a half a kilometer further along. Margarite found Marc’s skateboard about 2 km from his house and brought it to him.

Just then Margarite remembered the note she had been taking to Marc when the storm hit. She had no idea where it was. “Man, I hope *that* doesn’t turn up somewhere,” she thought. “That would be *sooo* embarrassing!”

## Vortex: Epilogue

In the days after the tornado, everyone in the neighborhood was busy cleaning up their yards and fixing the damage to their houses. Margarite put the tornado kit back together for her own family and made a list of things they could do to make their house even safer in the future.

Margarite and Marc decided to see if their neighbors had a tornado safety plan and kit ready to use in their houses. They got to know everyone in their community and helped several of their neighbors write up tornado safety plans. In a short time, the buildings and houses were repaired, and people felt more prepared in case of another emergency.

Marc's mom bought another VW bug with her insurance money – this time, a blue one. Since Margarite had found his skateboard after the tornado, Marc decided to give her a few lessons on it. “Besides which,” he thought, “she *is* pretty cute . . .”

Meanwhile, in Lawrenceville, Mr. Marc Johnson was on his way to work one morning when something caught his eye. It was a piece of paper caught in the fence of his driveway. He opened it up. It said:

*Dear Marc,  
I think you are so cute. You are the coolest guy I know. I am so glad that we live near each other. Do you have a girlfriend? Maybe we can walk home together sometime. Or we could both ride on your skateboard, if you teach me how.  
- Margarite*

## Self & Group Evaluations

Name: \_\_\_\_\_ Teacher: \_\_\_\_\_ Period: \_\_\_\_\_

*Reflect on how you and your group members did at working as a team. Be specific and be fair. Scores range from "0" (unacceptable) to "5" (excellent).*

SELF (score): \_\_\_\_\_

What I did well: \_\_\_\_\_

\_\_\_\_\_

What I can improve: \_\_\_\_\_

\_\_\_\_\_

Group Members:	(score)	comments
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

What did your group do well? \_\_\_\_\_

\_\_\_\_\_

What can your group do to improve your results for next time? (Be very specific)

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_