

Appetizer

“START WITH: THE ATMOSPHERE” TITLE

Ask student volunteers to describe the most amazing weather day they can ever recall. Encourage students to use both qualitative and quantitative descriptors. Write their key words or phrases on the chalkboard.

Continue the discussion by asking some or all of the following questions.

- What impact did this amazing weather day have on your life?
- How did that weather make you feel?
- Were you inconvenienced? Was anyone else?
- Did you know this amazing weather day was coming?
- If so, did you make plans because you knew it was coming?
- If not, would you have changed your plans had you known?
- Did you or other family members spend money as a result of the weather circumstance?
- Who might have made money as a result of it?
- Does a particular sound, song, color or smell make you recall that weather day?

Move to a more global discussion on weather by asking the following questions.

- What types of jobs are directly affected by weather?
- What types of jobs depend upon certain weather conditions?
- What type of weather most impacts your day-to-day activities?
- Is it important for you to know about potential weather conditions? Why or why not? **SKIP ►►**

MIAMI, MAY 12, 1997

Tell students that even with all the modern tools available to us, including satellite images from space, the weather still can catch us by surprise at times. On Monday, May 12, 1997, some Florida residents witnessed a surprise weather event that was captured on tape by a rooftop video camera as well as by many amateur videographers. Here’s what they saw. **SKIP ►►**

MIAMI TORNADO VIDEO NARRATION (1 MINUTE DURATION)

“If you think tornadoes don’t touch down in large metropolitan cities, think again. Now residents in Miami, Florida, had never seen such a sight as this—sure they have their share of severe thunderstorms, occasional waterspouts and short-lived funnel clouds that last just a minute or so. But to see a tornado cruising by Miami’s high-rise apartments in

the middle of a Monday afternoon in May was, well, it was amazing, actually. Sure, it was dangerous—the 100 mile-per-hour winds were enough to uproot trees, shatter glass windows and throw lots of debris into the air. And people ran for cover—well, those who didn't have video cameras in their hands did, anyway. As a result, nobody was seriously hurt. But this tornado—that was on the ground almost 15 minutes, causing almost a half million dollars worth of property damage—will always be remembered by the striking images made as it toured downtown Miami, in no particular hurry.”

END OF MIAMI TORNADO VIDEO

Explain to students that probably the most interesting thing about the Miami tornado is that as rare as this weather event was, it was forecast almost 24 hours earlier by the National Weather Service Forecast Office in Miami. Actually, strong upper-level air disturbances and hot, humid air—the conditions that were favorable for producing supercell thunderstorms—storms that spawn tornadoes—were well forecast. So when this tornado materialized, the people most surprised by it were those who had not heard a recent weather report.

But in the absence of a weather report, you can look around you to get a sense of where the weather is headed. And the more you know about why weather exists, the better you'll be at spotting clues to the weather that's on the way.

Tell students that in this and the next four lessons, they will be introduced to the causes of weather while experiencing some of the most amazing, and scary, weather conditions offered on this planet. Then, distribute a copy of the “Start with: The Atmosphere” ACTIVViewer™ recording sheets (Pages 25-26) to each student.

Let the following narrative help steer your discussion with students. Those of you who are unfamiliar with or uncomfortable with the subject matter might want to stick fairly closely to the prepared script—paraphrasing it and customizing it to fit your particular teaching style. The visuals on the DVD are ordered based on the lesson plan, so all you need to do is watch for video and print cues telling you when to advance the DVD.

Those of you who are well versed in the subject of climate and weather can use these visuals to support your own lessons. If you prefer to use the visuals only, though, you might want to visit the Visuals A La Carte section of the DVD to help you navigate more easily through the images.

Regardless of how you choose to use the materials we've provided, remember that above all, *you* are guiding this lesson, it is not guiding you. Move through it at a pace that's comfortable for you and your students. Encourage questions and interactivity. If you're unsure of answers, have students further research their questions on the internet. Or e-mail the question to us at questions@freshscience.com. We're anxious to help you succeed. 