



# Kent State University

## AT&T Classroom

### Holden Elementary School Second Graders

#### Focus on "The Weather"

Hurricane Ike provided some real life experiences for the second graders of Holden Elementary School and their teacher, **Mrs. Amy Hopkins** as they began their study of weather. As the hurricane passed through Ohio with high winds many people experienced power outages, including Holden Elementary School where students lost two days of school. Images of the hurricane were examined using Google Earth with the weather layer on the SMART Board. Students used Flip Cam Digital Video cameras to film the weather outdoors. Newspaper articles were reviewed daily using the Wolf Vision Document Camera. Each child selected an article, reviewed it with their parents, and then displayed and discussed it with the class.

A Kidspiration template provided a format for students to display and record daily weather, including temperature, and cloud type. Learning what weather patterns are associated with different cloud types gave students the opportunity to make predictions based on their observations. Many opportunities to look at and interpret weather data on graphs were provided and displayed on the SMART Board. The Wolf Vision Document Camera was also used to display pages of the story as the teacher read both fictional and non-fictional stories to the children. United Streaming videos on various topics associated with weather were enjoyed on the large screen of the presentation station. A rain gauge was constructed from plastic soda pop bottles, and the students measured the precipitation daily. The data was collected and discussed. The highlight of the unit was a trip to the new Channel 2 studio in Franklin Hall where the students were encouraged to explore the control room, the anchor desk and experience the green screen with weather graphics. Upon returning to the classroom, the children used the DANA keyboard to record reflections from their tour of TV2. Mr. Gary Garnett, a NOAA speaker, was very pleased with the second graders understanding of weather events.

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# NASA Visits the AT&T Classroom

Mrs. Christi Bates and her fifth grade students from Holden Elementary School launched their study of astronomy with a visit from NASA. Students learned about living in space and all of the adjustments that must be made for a zero gravity environment. The students tried on a space suit and an astronaut's sleeping bag and examined dehydrated space food.



A pre-test on several astronomical concepts was administered using the Turning Pointe response system. Concepts included phases of the moon, changes in seasons, orbits of the earth and moon, eclipses of the sun and moon, shadows and the atmosphere of the earth. These same concepts were reinforced when students used an electronic “study buddy” designed by Dr. Katherine Rawson and Dr. John Dunlosky during four sessions. The purpose of this tool was to improve the efficiency and durability of the student’s learning.



Many activities involved using manipulatives to illustrate the major concepts. Students produced a video on the phases of the moon using student produced charts and dialogue. They recorded the production using the Flip Cam digital video camera. Other hands-on investigations were preceded by student predictions which were then evaluated using the data that was collected. Recorded data was displayed graphically and shared with the SMART Board. Circle graphs were produced demonstrating the differences in day-light/darkness on four different dates and they were analyzed, evaluated and displayed in the classroom.



Students did research and collected data on the moon phases which was then shared by beaming the information with their Palm TX handheld computers. A trial version of the program, “Road Lingua” was installed on the Palms, and students used this software to learn basic information and study illustrations of the celestial bodies. This mobile technology allowed the students to practice and review in the classroom, on the bus and in their home.



New 3-D viewing equipment, on loan from the KSU Biological Sciences, gave students another representation of planets and the moon.

