

# The New York Times

# Television

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FOR YOUNG VIEWERS

## Learning the Logic of Wistful Thinking

For the young and the curious, the world of science and math is cracking wide open this week, with two new PBS series that have their premieres on Channel 13: "Dragonfly TV," at 11 this morning, and "Cyberchase," at 9 a.m. and 4 p.m. tomorrow.

How many kinds of dragonflies exist? At least 400, we learn on "Dragonfly TV," a weekly series in which children seek scientific solutions to questions like: Why are there boulders in rapids but not in calm waters? (The rushing waters can carry only smaller rocks into calmer waters; the boulders are too big to move.)

Children on the show, none of whom are professional actors, also learn how to weigh a whale, which comes in at



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4,990 pounds after being enticed onto a scale adjacent to the water, and how to program a Lego robot.

"Kids who are 9 to 12 tend to lose interest in science," said the show's creator, Richard Hudson, who was the executive producer of the PBS show "Newton's Apple" for 15 years. "We're trying to rescue them."

In a Colorado riverbed, Jenny, Danny and Simi discover how a river is made and how to measure water speed with an orange. ("Orange, you ready yet?" they ask.) And Vickie, Peta, Kha and Robbie figure out that the power behind a taekwon do kick comes from foot position — especially the 6 o'clock position, when the quadriceps, hamstrings and calves are aligned.

"Kids tend not to brag about doing

science," Mr. Hudson said. "We try to do the bragging for them."

Like "Dragonfly TV," the daily series "Cyberchase," aimed at children between 8 and 11, is on a positive mission: "to improve children's mathematics literacy," said Sandra Sheppard, an executive producer of the show who also developed the Emmy Award-winning educational series "What's Up?"

With the voices of Christopher Lloyd as the evil Hacker, Gilbert Gottfried as Digit the cyberbird and guest star voices like Bebe Neuwirth's and Philip Bosco's, this half-hour cartoon show teaches children to solve puzzles, organize numerical investigations and, in general, make sense of numbers.

"Cyberchase" is designed to turn kids on to math and to empower them to become problem solvers," said Ms. Sheppard, whose mother was a math teacher.

The premiere episode, for instance, features a classic battle of good versus evil, with Hacker on a malevolent mission to conquer the virtual universe. Motherboard, the good ruler of cyberspace, calls upon three earth children to save the day. As Jackie, Matt and Inez proceed to do so, they discover the need for specificity. It does no good, they realize, to describe Hacker to different people in different ways, so they agree on one description — a tall green man in a cape with a pointy chin — and they soon see results.

"The 'aha!' moment for children comes when they realize that math is as much a part of their daily lives as reading," said Kristin Laskas Martin, an executive producer of "Cyberchase" and of PBS's Emmy Award-winning "Magic School Bus." "Mathematics



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itself is useful in the real world because it can model various aspects of that world, from counting sheep and making change all the way to complex models of the behavior of hurricanes and global weather patterns."

Anything can happen in "Cyberchase," and does. "Episodes can be set in any time or place, real or fantastic, which lends variety to the series' plot and look," Ms. Sheppard said. "But once our heroes get where they are going, they have only one weapon to defeat the bad guys: their brains. This is a very powerful message to send to kids: use your mind, instead of your muscles, to save the day."

—Andrea Higbie

### CONNECTIONS

[www.pbskids.org/dragonflytv](http://www.pbskids.org/dragonflytv)  
Children can learn more about "Dragonfly TV" investigations, share their own discoveries by e-mail, receive tips on how to improve their projects and find out what it takes to appear on the show.

[www.pbskids.org/cyberchase](http://www.pbskids.org/cyberchase)  
Games, puzzles, sneak previews of "Cyberchase" episodes and more information about the show and its characters.



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Abby and David (left) discover which mountain terrain creates the best winds for paragliding, and Hilary (above left) explores how dolphins bond on "Dragonfly TV." Above, Matt, Jackie, Inez and Digit the cyberbird pursue the villainous Hacker in "Cyberchase."