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# STOP for Science!

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**Young students are often natural scientists. They love to poke and prod, and they live to compare and contrast. What is the fastest animal? Where is the tallest mountain on Earth (or in the Solar System)? Where do the colors in a rainbow come from? And why do baseball players choke up on their bats?**

Educators work hard to harness this energy and enthusiasm in the classroom, but particularly at an early age, exposure to science outside the formal classroom is crucial to help expand science awareness and hone science skills. Developed under a grant from *Chandra* EPO with the CXC's Pat Slane, "STOP for Science!" (STOP) is proving to be a simple but effective program that raises questions about science topics in such a way as to capture student interest.

STOP consists of a series of five posters designed to engage any K–6 student in science through relatable and recognizable applications to the world in which we live. The posters can be placed anywhere on school grounds—from hallways to cafeterias—so that the program is not seen as only something for "science" students. The ultimate goal of STOP is to generate school-wide interest about science that can be sustained as the STOP displays are changed throughout the year.

Accompanying each poster is a series of question sheets of increasing difficulty levels that students answer and submit at a designated location (collection box, office, etc.). Random prize drawings can be used to recognize or celebrate student participation. Although the focus is building-wide, content can be linked to classrooms through use of accompanying teacher/facilitator resource guides.

The following five topics are currently included in the STOP program:

- \* How Tall is Tall? asks, "What is the tallest mountain on Earth?"
- \* "When Stars Go Boom!" introduces several key ideas about stars, and focuses in particular on the supernova explosions that mark the ends of the lives of the most massive stars.
- \* "Choke Up on That Bat!" explores the science behind this technique by introducing the concepts of inertia, force, and torque, though in somewhat more conceptual terminology.

\* "That's Fast!" introduces the basic definition of speed, giving simple examples in units that the students can relate to.

\* "Somewhere Over The Rainbow" introduces key ideas about light—and sunlight in particular—to explain its behavior when it travels through a raindrop, and how this results in the formation of rainbows.

If you would like to help establish this program at a school near you, please visit the web site and request a copy of the materials at <http://chandra.si.edu/edu/stop/> . If you are interested in helping develop the next generation of STOP materials, please contact [cxc-pub@cfa.harvard.edu](mailto:cxc-pub@cfa.harvard.edu).