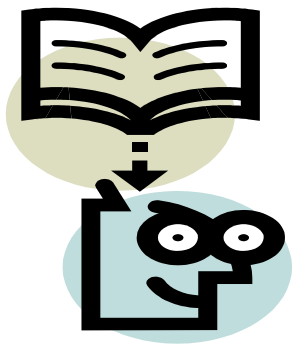


Is your school having an **FCAT ATTACK ?**



Don't worry!

Mad Science can improve your school science scores by helping your fifth and fourth graders (and teachers) tackle FCAT Science with the

Mad Science FCAT Pak,

A group of exciting hands-on workshops tailored to the FCAT annually assessed content areas



How does the FCAT Pak work?

The FCAT Pak is a series of one-hour workshops that uses fun science to teach students the four FCAT content areas tested for in 5th grade. In each workshop, Mad Science experiments and demonstrations are used to help students grasp the benchmarks outlined in the Florida Department of Education's Sunshine State Standards. To reinforce what was learned every workshop includes:

- Pre & post activity guides for teachers
- Student take-home projects to share their experience and excitement with family
- "What we learned" and "Lets try this at home" take home sheets
- Embedded sample FCAT questions throughout workshop activities and demonstrations

With an 8 week series we include an exciting assembly to kick-off the program for students involved

How thorough is the coverage in the FCAT Pak?

Mad Science offers two options: a four-week overview and an eight week in-depth program. The four-week overview is designed to highlight the most difficult concepts in each of the four content areas; with different standards being covered in each hour-long session. The eight-week series doubles the content including multiple experiments & demonstrations that convey the details of the FCAT annually assessed benchmarks

Does the FCAT Pak replace classroom instruction?

No! We can help teachers by bringing fun science to the students, but nothing can substitute for ongoing learning in a classroom. The FCAT Pak is designed to supplement classroom instruction by emphasizing inquiry-based hands-on, fun learning aimed at the specific FCAT benchmarks.

Why should we use the FCAT Pak in our school?

Anyone who has spent more than five minutes with fourth and fifth graders knows how long their attention spans... Get the picture? Programs that use different methods of teaching can get through to students. We use visual, tactile, and auditory teaching methods in our inquiry-based workshops. Students "experience" the FCAT objectives, not just hear about them, and for as little as \$4.5 per student per hour.

What if we can't spare the time?

We will work with your needs! Ideally, the sessions should be conducted during class time so that all students have the opportunity to be involved. However, we can conduct before or after school sessions, schedule individual objective workshops, or customize programs. Just ask!

The number of students that met and/or exceeded state science standards improved 45% on average at schools that utilized this program

Contact us to schedule an FCAT Pak and for any questions: 727- 895-5595 www.Madscience.org/wsTampaBay

PROUD MEMBERS OF:

AAAS American Association
for the Advancement of Science

NSTA National Science
Teachers Association

CSEF Children's Science
Enrichment Foundation

The Science portion of the FCAT test every year assesses the achievement of the sunshine state standards in science for 15 annually assessed benchmarks that fall into 4 content areas. The remaining benchmarks are content sampled each year meaning they are randomly selected and may or may not be included. Approximately the same number of questions are used in each content area. These areas are:

1. **Physical & Chemical Science**
 - a. Nature of matter – SC.A
 - b. Energy – SC.B
 - c. Force & motion – SC.C
2. **Earth & Space Science**
 - a. Processes that shape the earth – SC.D
 - b. Earth & Space – SC.E
3. **Life & Environmental Sciences**
 - a. Processes of life – SC.F
 - b. How living things interact with their environment – SC.G
4. **Scientific Thinking**
 - a. Nature of Science – SC.H

The FCAT Pak workshops address these content areas focusing specifically on the 15 annually assessed benchmarks using hands-on activities, and fun interactive demonstrations. Sample FCAT questions are embedded throughout each workshop to assess knowledge achievement and fun take home projects reinforce what was learned. All workshops are one hour in length and immerse students in the scientific method throughout. (*FCAT standard SC.H - Nature of Science*). The complete 8 week series is listed below followed by the benchmarks they address. The first four workshops are offered as a condensed four week overview series. Our normal format is to come to your school 1 - 2 days each week and rotate through all your 5th and/or 4th grade classes.

* **Matter of Fact** - Explore molecules and how they are held together. See the dramatic differences between physical and chemical changes and how matter can be compared and measured as you mix up a batch of your very own Mad Science Putty to take home. *FCAT standards SC.A.1.2.1, 4, 5 & A.2.2*

* **Moving Motion** – Action equals reaction in this energetic program. Discover the science behind force and movement with experiments on friction, inertia and the other physical forces affecting motion. Buckle up for a spectacular demo of these forces with a hovercraft ride for all interested pilots. *FCAT standards SC.C.1.2.1, & 2.2.1 - 4*

* **Mineral Mania** - Recreate the process of rock and landscape formation including Florida's caves and erosion and devise ways classify rocks and minerals. Experience the thrill of panning for gems to find, and take home for further study and investigation. *FCAT standards SC.D.1.2.1 - 5*

* **Ecosystems** - Investigate the interconnections present in nature. Students will build ecosystem models, and explore the elements of energy webs, and food chains. They will reflect on how humans impact ecosystems, and use field journals for everyday explorations. *FCAT standards SC.B.1.2.1, D.2.2, F.1.2.2, 3 & G.1.2.1, 2, 4, 5, 6*

Dry Ice Capades

Explore the 3 states of matter and the changes of state. Turn water to ice in 30 seconds, build a giant bubbling potion, carbonate plain drinking water and create the same awesome smoke illusions used in the movies. Also explore what heat can do to matter and concept of temperature extremes. *FCAT standards SC.A.1.2.1, 2, 4 & A.2.2*

Energy Burst!

Explore the various forms of energy, including electricity and the sun, and how energy can be transferred. Build the world's simplest motor and find the difference between potential and kinetic, and how energy can be conserved. Build rattlesnake eggs and BOINKs powered by energy — and scare your friends. *FCAT Standards SC.B.1.2.2, 4, 5, 6*

All About Animals – Explore the unique features of animals with adaptation as a theme as students will explore way in which animals adapt to the challenging elements of their environment. *FCAT standards SC.G.1.2.2, 5, 6 & G.2.2.1 and SC.F.1.2.2, 3*

Space... The Final Frontier

These are the voyages of young inquiring minds on a quest to discover Space! Their mission: to take an exciting look at planets, moons, comets, and the stars. . (Space suits not required.) We will explore our solar system, create eclipses and discover the riddle of our seasons in this “mad” planetary tour! *FCAT Standards SC.E.1.2.1 – 5 & E.2.2.1*

* - designates workshop offered in four week overview series.