

# Orange Park Christian Academy prepares for Aerospace Days '06

About 500 area students are expected to attend the second annual event.

By **MARY MARAGHY**  
Clay County Line

Aerospace and aviation exhibits, hands-on engineering contests and presentations by experts will be featured at Aerospace Days 2006, Friday, March 10, at Orange Park Christian Academy.

More than 500 students from 26 junior high and high schools in Clay, Duval and Putnam counties are expected to attend this second annual event, which organizers promise will be bigger and better than last year's.

The academy is a 300-student private school on Kingsley Avenue affiliated with Orange Park Assembly of God.

Aerospace Days scheduled guest speakers are Alabama's Greg Jenkins, engineering director for Moseley Technical

Services, which has developed payloads for 18 space flight missions; John Brandenburg, a University of Central Florida professor and astrophysicist from the Florida Space Research Institute; and J.B. Renninger of Orange Park, director of Florida Community College Jacksonville's Aviation Center of Excellence.

Exhibitors include the Northeast Florida Association of Rocketry, the Northeast Florida Astronomy Society and NASA's Kennedy Space Center.

Some academy science students five years ago formed Tekna-Theos Inc., a space education company, under the direction of science teacher Kevin Simmons, a former biochemist. Tekna-Theos, which is Greek for children of God, has been awarded about \$90,000 in grant money to date for the shuttle-bound space flight bioreactor it is developing to test the effect of space on bone growth. Aided by NASA engineers, Tekna-Theos students



MARY MARAGHY/staff

Students in Tekna-Theos Inc., an aerospace education program at Orange Park Christian Academy are top row, from left, Alex Benn, Joseph Spradling, Matthew Painter. Bottom row, Erica Fitzgerald, Megan Snay and Robyn Draughon.

have built an experimental device designed to be put on a future space shuttle to test the effects of various drugs on bone cells taken from baby rats.

Bone mass loss has been problematic for astronauts because they can't exercise in space and their bones atrophy. Tekna-Theos research could also help

## THE CLAY COUNTY LINE

4 Wednesday, March 1, 2006

find a cure for osteoporosis.

Meanwhile, using a borrowed digital pressure gauge from Northrop Grumman, students recently began testing the effect of microgravity on plant life in hopes of developing a way to green up the planet Mars.

"We're trying to simulate Mars-like conditions using a hyperbaric chamber and alpine plants, said student Matthew Painter.

The students are studying plants grown in less than one atmospheric pressure, which is the standard.

In March, four students are scheduled to address the U.S. House of Representatives and the U.S. Senate about continued funding for NASA and in April, students plan a similar lobbying effort in Tallahassee, set up for them by state Rep. Jennifer Carroll.

In October, four students spoke before 150 scientists and professors at the annual National Space Grant directors'

meeting in Cocoa Beach.

"It was very nerve-wracking at first," said Robyn Draughon, one of the four.

Erica Fitzgerald, another student, said she was able to eat lunch with representatives from the Zero Gravity Corporation, a space tourism company that offers weightless flights, which provide the sensation of floating in space, for about \$3,000.

"It was really interesting and very insightful," she said.

Simmons he said he's excited to learn that his program is in line with Gov. Jeb Bush's recent initiative to promote space education in Florida. Simmons hopes that could mean more funding for Tekna-Theos.

"We are the poster kids for the space program," Simmons said. "A politician will give two 16-year-olds more time and attention than they will a 40-year-old scientist."

mary.maraghy@jacksonville.com,  
(904) 278-9487 extension 19