LEGOS INTO ORBIT!

LEGO robots, feverish competition, deafening noise, and excited young scientists—all were found at the inaugural Kansas Central FIRST LEGO League competition held December 8.

On that day, 16 teams of Kansas 4th to 8th graders gathered at Haysville Middle School for a competition based on LEGO Mindstorms robots. The theme: INTO ORBIT.

In the past Kansas has had spotty access to FIRST LEGO League programs, but the founding of Kansas Youth Science and Technology (KYST) Foundation in 2017 brought a league to underserved parts of the state.

Kansas now has three official FIRST LEGO League regions. The Kansas Southwest Region is headquartered at the Mid-America Air Museum in Liberal. It runs down a vertical line from the edges of Smith to Barber Counties west to Colorado.

The northeast 14 counties are part of the Kansas City region. The Kansas Central region, an L-shaped area between those two, covers the rest of the state and includes teams through the Southeast Kansas Education Service Center at Greenbush. The League is part of the FIRST organization founded by Dean Kamen, (Segway inventor 30 years ago), a progression of STEM-Based robotic competition programs which are offered from ages 6-18.

The three pillars of the competition are a robotics challenge, a project challenge and a core values challenge. Awards are

Salina native pilots successful SpaceShipTwo test launch

Salina native Mark Stucky was lead test pilot on the Dec. 13 successful launch of a Virgin Galactic SpaceShipTwo plane from the Mojave Desert in California. This puts the Virgin Galactic spaceflight company one step closer to its goal of commercial space tourism.

According to press reports, the plane reached an altitude of 51.4 miles (82.7 km) and a Mach 2.9 speed (almost 3x the speed of sound.) High enough that NASA sent microgravity experiments along.

According to his NASA biography, Stucky’s flight experiences began hang gliding off the Flint Hills at age 15. He graduated from Salina South in 1976. At K-State, he earned a Blue Key Scholarship for an extra curricular design project involving hang gliding, graduating in 1980 with
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given in all areas.

For the robotic challenge, each team has the exact same elements to work with to design, make and test their robots.

There are 15 tasks the robots try to accomplish during the 2.5 minute matches on a space-themed tabletop playing field. Tasks relate to missions like solar panel angling, crater crossing, payload moving, ore extraction, lander touch-down, space station module and satellite orbits missions.

In the project portion, each team identifies a problem faced during long space missions and proposes a solution in a 5 minute presentation. Topics tackled included depression, radiation issues, food sources. Students do research and talk with experts in the field to come up with their ideas.

The seven-member Blockheads Team from southeast Kansas tackled an eyesight problem. Weightlessness allows fluid pressure build-up on the back of the eyes to flatten the eyeball, causing damage to sight and to the eye itself. Their idea would be to make contact lenses that release a drug or medicine into the eyes to reduce the fluid and pressure.

The core values portion is, in a way, the jewel of the program.

“This is a multi-faceted program. The robotics draw the kids in because it’s fun, but the project and core values portions are where they learn other things,” says Amy Lash Esau, KYST Foundation President.

“The robotics teaches about physics and engineering, but the project portion teaches about discovery, innovation, impact, inclusion, scientific method and teamwork,” she says.

“[And] there are great synergies. With the progression of programs in the FIRST platform, the older kids help the younger ones. For example, the high school Horse Power Team from Salina has helped two LEGO teams,” says Lash Esau.

A new season for the Kansas Central League begins in August. Registration begins in May. For more, go to info@kscentralfll.org

For information about the Southwest Kansas Region, contact the Mid-America Air Museum by emailing peggy.mcculley@cityofliberal.org

Their new season starts March 23 with the theme of “Into Orbit.”

The KCFirst LEGO League regional championship will be January 26 at Metropolitan Community College Business and Technology Campus, KC MO. The event is free and open to the public. For more info, go to www.kcfirst.org/events.
Hague to go into the wild blue yonder again

Kansas astronaut Nick Hague, whose October space flight to the International Space Station was aborted in mid-flight due to a rocket malfunction is now scheduled to launch on February 28, 2019, from Baikonur Cosmodrome in Kazakhstan. He will be a member of Expedition 59.

Find out more here

Also, NASA has put out Posters of all Expeditions to the ISS, including the aborted Mission 57. Posters for expeditions 58 and 59 will be coming out shortly. Find them at expeditions

Ensuring Kansas students have the opportunity to be future astronauts

WICHITA—In a column written by U.S. Kansas Senator Jerry Moran and published in the Wichita Eagle on Dec. 23, 2018, he expresses commitment to helping American youth inherit opportunities for space exploration.

Moran, chairman of the Senate Appropriations Subcommittee which has jurisdiction over NASA, states that providing support for NASA has been a priority, especially when it comes to promoting STEM education for youth.

A Senate bipartisan appropriations bill for the upcoming fiscal year prioritizes education programs within NASA. A part of the NASA budget is the Office of STEM Engagement, which seeks to provide superior learning tools to youth and teachers to increase K-12 involvement in STEM.

To read the full article, click HERE

PETERSON PLANETARIUM
click 3599
Spring Schedule 2019

Thursdays - NASA NIGHTS! 6:30-7:45 pm
January 3, 10
February 7, 14, 21, 28
March 7, 21, 28
April 4, 11, 18, 25
May 2, 9

Saturdays - Night-Sky Tour & Full Dome Show 11:30 am to 12:30 pm
January 19 (Mars, True Horizon Space Station)
February 9 (Earth's Moons), 16 (Super Moon)
March 2 (A Visit for Children), 9 (Constellations)
April 3 (Earth, 27 (Orbits of Life))

SPECIAL SPEAKERS & EVENTS...
1/20 - Lunar Eclipse at 11 - 12 pm
1/24 - Solar Physics by Carl G. Cameron/SHM 6:30
1/26 - Spring Equinox in Peterson Planetarium 7:00 - 8:00
1/27 - Astronomy Day at Peterson Planetarium

NOTE: Peterson Planetarium’s regular series—NASA nights and the Night-Sky Tour & Full Dome Show are open to the general public and free. As are these Special Speaker Events. Makes for fun and educational family outings.