

Sunrise Valley Elementary PTA • Fairfax Collegiate Before School Classes



Fairfax Collegiate and Sunrise Valley Elementary PTA are partnering up to provide fun, exciting, and educational before school classes to Sunrise Valley students. Classes are taught with curricula adapted from Fairfax Collegiate's highly successful summer program, with over 3500 students attending its Summer 2016 program. Instructors have authoritative knowledge of their subjects, as well as experience working with children. Small class sizes of 8-12 students, top of the line equipment, talented teachers, and a proven curriculum come together to create a great class where kids will have fun and learn!

- **Equipment and Materials:** Fairfax Collegiate will provide each pair of students in robotics classes with a laptop and LEGO WeDO kit, or each pair of students in photography classes with a laptop and DSLR camera, for use during the course.
- **Location:** Classes held at Sunrise Valley Elementary
- **Time:** Classes are 55 minutes long, and last from 8:15 am to 9:10 am.

Creative WeDo Robotics (Grades K-3)

Fridays, Feb 3 - Mar 31 (no class 3/24); Room 217

This class is designed for students who are looking for additional WeDo robotics challenges. The course emphasizes creative problem-solving challenges, design innovation, and basic applied math concepts. Using an expanded construction set, students build more complex mechanisms and robots, and use their innovation and critical thinking skills to engineer their own creative solutions to exciting challenges.



Photography (Grades 4-6)

Mondays, Jan 30 - April 3 (no class 2/6, 2/20); Room 206

Students learn digital SLR photography starting with basic camera operation. Subjects include plants and flowers, food, portraits, products, and architecture. Exercises emphasize exposure, composition, color, and lighting. Students achieve artistic effects by manually controlling the components of exposure: aperture, shutter speed, and ISO. DSLR cameras are provided for student use during class.

Cryptography (Grades 4-6)

Thursdays, Feb 2 - Mar 23; Room 217

Make and break secret codes using math!

Students learn the historical evolution of cryptography in a hands-on exploration of real-world codes, including Caesar ciphers, substitution ciphers, Vigenère ciphers, and RSA encryption. As a final project, students develop their own cryptosystem. Topics include modular arithmetic, factoring, inverse functions, exponents, and prime numbers.



Register today!

Classes are sponsored by the SVES PTA. Sign up for SVES PTA Enrichment Programs at <http://pay4schoolstuff.com>. For more information, please contact Gamble Gilbertson (EnrichmentSVESPTA@gmail.com).

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