Reasons why Administrators, Teachers, and Students Love Exploring Robotics

Robots are cool and are guaranteed to increase the popularity of schools, classes, teachers, and administrators! But not all robot programs are the same. Exploring Robotics programs...

Are Affordable: Class set for 20 to 30 students; 10 robots, curriculum, PD, and accessories is around $1,500 to $5,500. (Robots are $65 to $300) The robots can be reused for 3+ years. CTE, STEM, Title, or QZAB funding can be used. What an economical way to engage students in STEM!

Are Easy to Teach by Math, Science, or Technology Teachers: Our self-paced learning curriculum with videos, and robots, creates a turn-key package. This means teachers require no background or credentials in engineering or programming to facilitate these robotics programs.

Include Support and Professional Development: Teacher PD using one-on-one video conference sessions helps teachers get started and have success with the program, without expensive travel. Teachers are not alone with our excellent technical and lesson planning support.

Apply cross-curricular methods to increase test scores: NGSS, Math, ELA, CTE, CSTA, and ISTE standards are applied in a project-based learning environment. Authentic math and science problem solving, worksheets, report writing, quizzes, and research will enhance skills.

Attract more students (and girls) to STEM programs: Robots are the Trojan horse method of gaining interest in STEM. The success students have in these classes means they also sign up for other STEM programs. Class and regional competitions help prepare for FIRST and nationals.

Scaffold from elementary to middle and high school: Introduce engineering and creative thinking concepts in K-5th grade; graphic programming in 3rd-7th; robotics, electronics, and Basic programming in 8th-10th; and Python, C coding, Smart Homes and IoT in 9th-12th grade.

Increase graduation rates: Provides hands-on, authentic learning activities with teamwork and self-paced instruction to keep students interested in school, and less likely to drop out. The high school courses also coordinate well with college credit and University outreach programs.

Fit classes, clubs, makerspaces, or camps: The flexible lesson plans with modular lessons for 10, 16, or 32 week sessions can be adapted to fit terms or semesters. They are easy to coordinate with other STEM programs, or reduced for shorter club and makerspace experiences.

Prepare students for 21st Century jobs: Computer Science, Engineering, and Electronics are high-demand job skills. These high-tech skills help attract more diverse industries to communities. Python and C languages are used by Google, Yahoo, Cisco, and other tech companies.

Use Evidence Based Practice: The curriculum includes interdisciplinary project based learning (PBL) with real world applications. Students are challenged with goals and have multiple opportunities to show and develop learning. Activities connect STEM to real-world projects and careers. Implementing programs with these sound educational practices can help assure success.

ExploringRobotics.com
Engage ◆ Discover ◆ Invent

See pricing and videos.
Evidence Based Practices to Teach STEM and Coding

Our curriculum and products include these Evidence Based Practices for STEM education:

◊ Interdisciplinary project based learning (PBL) with real world applications.
◊ Challenging goals with multiple opportunities to show and develop learning.
◊ Connecting science, technology, engineering, and math subjects to real-world projects and careers.
◊ Cross-curricula, writing, and communication assignments to integrate STEM into other lessons

Exploring Robotics Curriculum is EASY TO TEACH because it includes:

✓ Modular online lessons (20-55 minutes) that adjust to fit terms, semesters, or after school time periods
✓ Hands-on activities with rugged robots and kits that can be reused term after term
✓ Real world projects and inventions with Engineering Design Cycle, Electronics, and Coding
✓ Self-paced, engaging content-rich videos to explain science, robotics, coding, and complex concepts
✓ Assessments with project grading rubrics, notebooks, and self-check quizzes for immediate feedback
✓ Accessible student e-books (printable or view on tablets or other devices)
✓ Engaging worksheets as Word or Google Docs for each lesson to turn in for points
✓ Step by step instruction with 3D models, animations, and color graphics
✓ Standards in every lesson: Math, ELA, NGSS, CSTA, ISTE, CTE
✓ Teamwork projects: 2 or 3 students take on different tasks/roles with 1 robot or kit
✓ Interactive learning with simulations, animations, and web links
✓ Flexible lesson plans and printed Teacher Guides to help teachers get started
✓ Career exploration videos and information that motivates students to achieve
✓ Real world job skills with Arduino, Raspberry Pi, Smart devices, and IoT technology

Professional Development and Support for Teachers

◊ Available either on-site or via video conference (no travel)
◊ Hands-on: getting comfortable with the robots and technology
◊ Review of online lessons and integration with class schedules and plans
◊ Project Based Learning (PBL) and STEM teaching methods
◊ Programming (Coding) concepts and integration with Hour of Code
◊ Printed book with lesson plans, activities, and handouts
◊ Follow-up support via phone, email, or video conference

Robots + Curricula + PD + Support = STEM Success