Professional Development Guide
For VEX/STEM Educators

Overview

In individual states and provinces, through regional and local school boards and districts, educators are navigating recently revised professional development, effectiveness, and evaluation systems that exist to enhance teacher performance and ensure rigorous and relevant curricular offerings for students. Whether your system is called a *Professional Growth Plan, Teacher Effectiveness System,* or something entirely different, the Robotics Education & Competition (REC) Foundation knows that all educators are required to plan, evaluate, and document according to performance standards and validate instructional and assessment strategies in one way or another.

For STEM Educators who utilize VEX equipment (both VEX IQ and/or VEX EDR) as a learning tool with students in the classroom and/or for competition, we have developed this concise Professional Development Guide to assist in meeting your local or state professional development needs and requirements. All of these free resources are produced with the STEM Educator's needs in mind.

Education Resources for VEX Robotics Design System (Middle & High School)

The following are education resources for VEX Robotics Design System for Middle & High School:

- Free VEX EDR Robotics Curriculum
- Standards Mapping Details for VEX EDR Robotics Curriculum
- VEX EDR Robotics Course Syllabus (and other teacher materials)
- Industry Certifications' information and course materials for Pre-engineering and Robots
- VEX Curriculum/materials and assessment tools
- VRC Curricula materials/standards-matching and accreditation
- For Assessment Strategies for VRC

Education Resources for VEX IQ Platform (Elementary & Middle School)

The VEX IQ Platform and VEX Robotics Design System are both developed to help educators meet the rigorous standards-based needs of the 21st Century Classroom in dynamic and flexible ways.

The free VEX IQ Curriculum (for elementary and middle school) and free Autodesk VEX Robotics Curriculum (for middle school and high school) are both mapped directly to:

- Next Generation Science Standards (NGSS)
- Common Core Standards - Standards for Technological Literacy (STL)

The following are education resources for VEX Education Resources for VEX IQ Platform Elementary & Middle School:

- VEX IQ Curriculum
- Standards Mapping Details for VEX IQ Curriculum, found in "Teacher Materials" links within each curriculum unit
- VEX IQ Education Videos on Youtube
- VEX IQ Education Videos to download and save

Frequently Asked Questions About VEX & Education

Q. In addition to competitions, is there STEM curriculum available for VEX IQ and VEX EDR?

A. YES! It can be found at the following links:

- VEX IQ Curriculum (Elementary & Middle School): www.vexiq.com/curriculum
- VEX EDR Curriculum (Middle & High School): http://curriculum.vexrobotics.com/curriculum
- In addition to these free STEM curriculum offerings, other resources continue to be made available from existing & emerging program partners as well.

Q. How detailed is the curriculum? Does it include lesson plans and a syllabus?

A. Very detailed, yet flexible for your needs! Syllabi and Lesson Plans and much more are available for free! See www.vexiq.com/curriculum and http://curriculum.vexrobotics.com/curriculum

Q. In our state or local school system, we need to show how our curriculum meets Common Core (and/or other) Standards. Does VEX curriculum meet these standards and is it documented anywhere?

A. YES! The VEX IQ & VEX EDR Curriculum offerings are mapped to Common Core as well as the Next Generation Science Standards and the Standards for Technological Literacy. Both curricula help students achieve standards proficiency in many ways. Details are found at the following links:

- **VEX IQ** (please see the teacher materials in each unit of study)**:** www.vexiq.com/curriculum
- **VEX EDR:** curriculum.vexrobotics.com/teacher-materials/standards-matching-and-accreditation

Q. What about end of course (EOC) or Industry Certifications for students?

A. Yes, the REC Foundation offers two industry certifications for students, one each for Pre-Engineering and Robotics programs. Details on certification types, sample course sequences and content covered in each certification are found at: www.roboticseducation.org/certification