

Charles H. Barrows STEM Academy

cbs.windhamps.org

About the STEM Academy

Windham's regional STEM (Science, Technology, Engineering and Mathematics) Academy is a Kindergarten to grade-8 magnet school in northeastern Connecticut, enrolling 560 students from the Town of Windham and surrounding communities.

The STEM Experience

Our teaching methods, technology offerings, laboratories, classrooms and equipment provide students with the tools they need to apply effective, critical thinking skills to any challenge.

Hands-on inquiry learning helps to motivate students as they gain confidence across academic disciplines and develop a broader intellectual and personal understanding of the world around them. Learning becomes more meaningful as personal inquiry stimulates higher-level thinking, and students investigate real-world problems in a stimulating and supportive learning environment.



Educational Features

- A rigorous focus on Science, Technology, Engineering and Mathematics (STEM)
- Students master higher-level thinking skills in a stimulating and supportive learning environment that promotes critical thinking, and effective collaboration.
- Engineering and science curriculum begins in kindergarten
- Technology literacy is emphasized through the use of a variety of digital resources, probe ware, SMART technology, robotics, coding and more
- Students of all ages use laptops and iPads daily; each middle school student is assigned a personal iPad
- All students are exposed to world languages
- Parents are active partners in the learning process
- Students tackle real-world problems such as clean drinking water, land use issues, solar power and more
- Students work with guest scientists from the Connecticut Science Center, University of Connecticut, Eastern Connecticut State University, and local industry and scholars from universities are partners in the educational process

- Students work with highly qualified teachers, who participate in extensive professional development
- Full-day kindergarten
- Opportunities for field trips, internships and service/research projects in partnership with area businesses
- Full range of extracurricular activities, from sports to community-based service projects
- Students participate in science competitions



For more information about how to apply, please contact (860) 465-2610 or visit cbs.windhamps.org



Curriculum and Instruction

- **STEM School** for students, kindergarten through 8th grade at new “green” facility (CCC)
- **Learning environment** designed to support the STEM experience
- **Laboratories, classrooms and interiors** surround outdoor labs for learning. Advanced equipment and laboratories, including an oceanography lab and a Science-Learning lab
- **Outdoor spaces** include two ponds to collect roof rainwater, a nature path and an outdoor “classroom.” Also, rain garden, butterfly garden, sensory garden, vegetable garden and tree nursery bio-infiltration swales
- **Students participate in Invention Convention.** Three students have advanced to national competition
- **Field Studies with the Connecticut Science Center, and all students participate in a Bio Blitz Day**

Strategic Partners Extending Opportunities for Learning

Connecticut Science Center—

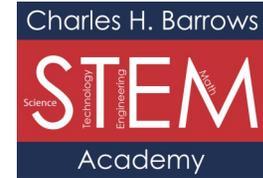
provides field trips, scientist-in-residence, and professional development for teachers

EASTCONN — offers professional development for teachers and management support

UConn – provides engineering opportunities for students, and college students who provide science project support

Local Businesses — support field trips, provide guest speakers, mentorships plus special projects

Rev 1-18



Charles H. Barrows STEM Academy

(Kindergarten to Grade 8)

*Preparing Students
for Success in the
21st Century Where STEM Skills
are in Demand.*

