



TEACHER'S GUIDE ***FIELD TRIPS FOR STUDENTS GRADE K-12***

*The following is a **small** sampling of lessons that could be enhanced with a visit to the Essex Steam Train & Riverboat. Each of these lessons meets one of Connecticut's teaching standards.*

Curriculum Standards: Science

- Forces and Motion (Grade 4) Standard 4.1
- Water (Grade 4)* Standard 4.3
- Sound (Grade 5) Standard 5.1
- Ecosystems (Grade 6) Standard 6.2
- Water Quality (Grade 6) Standard 6.4
- Forces and Motion (Grade 8) Standard 8.1
- Science and Technology in Society (Grade 8) Standard 8.4
- Science and Technology in Society (Grade 9) Standard 9.3
- Ecology (Grades 10-12) Biology
- Conservation of Energy and Momentum (Grades 10-12) Physics
- Heat and Thermodynamics (Grades 10-12) Physics

Curriculum Standards: Social Studies

- Local History (Grades K-12)
- United States History (Grades K-12)*
- World History (Grades K-12)*
- Geography: Physical Systems (Grades K-12)

Curriculum Standards: Technology

- Technological Impacts (Grades K-12)
- Transportation Systems (Grades K-12)

*Lesson plans and handouts available



EXCURSION FACTS

The Train

- The original Valley Railroad Company opened this line in 1871. Tourist operations began in 1971.
- Today's steam locomotive was built in either 1923 (Engine 97) or 1920 (Engine 40). It operates with 175 psi of steam, created by burning coal shoveled by hand into the firebox. Our firemen shovel several tons of coal each day of operation.
- The coaches on today's train were built between 1914 and 1925. They were used in commuter service out of Hoboken or Jersey City. Our Parlor Car, the Great Republic, was built by Pullman in 1930.
- Your crew includes:
 - Engineer, who operates the locomotive
 - Fireman, who regulates the water level and maintains the fire
 - Conductor, who is in charge of the train's operation
 - Trainmen, who assist the Conductor by collecting tickets, narrating your trip, and changing track switches

The Riverboat

- The MV Becky Thatcher was built as a Mississippi-style riverboat in 1961.
- The Connecticut River is the longest in New England. It flows 410 miles from the Canadian border to Saybrook Point, which is several miles south of our operation.
- At the turn of the 20th century, the river was heavily used for shipping. In addition to winter icing, a shifting sandbar on the river made transportation unreliable. This ultimately led to the creation of the Valley Railroad.