



B&O RAILROAD MUSEUM
The Birthplace of American Railroading



FIELD TRIP AND STUDENT GROUP GUIDE | K-12



HISTORY, TRANSPORTATION, AND INNOVATION

Bring history to life and then bring it back to the classroom with a B&O Railroad Museum Field Trip. Use this guide to help plan your Field Trip (in-person or virtually) to the B&O Railroad Museum's for the 2023-2024 school year.

We are delighted to offer a variety of new tours, experiences, and workshops designed to meet your educational needs for a range of grade levels. This student group guide contains logistical information as well as frequently asked questions about visiting our museum with your student group. After completing your reservation, you will receive a pre-visit classroom activity designed to be grade-level appropriate and aligned with Maryland Curriculum Standards. For more detailed information about the museum, please visit our website at www.borail.org.

Group Reservations and Questions: Education Team | Edu@borail.org | 443-627-2382

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SUPPORTING TEACHERS

The B&O Railroad Museum is committed to supporting teachers in reaching their educational goals for students. We have developed an extensive series of new educational programming focused on history, transportation and innovation aligned with the educational standards of the state of Maryland across all grade levels.

Our programs have been curated into 9 different themes, complete with pre and post visit activities, all aligned to MSDE curriculum standards for students in grades Pre-K through 12.

As a State Aided Educational Institution, we offer free or reduced pricing for most Maryland schools. See page 7 for pricing.

VIRTUAL FIELD TRIPS

In order to support teachers and students through this school year, the B&O Railroad Museum is offering many of the programs listed in this guide as either an on-site or virtual field trip. Our tours and Railroad Storytime are easily adapted for virtual learning while our workshops still require an in-person visit. See page 7 for more details and pricing.

Classrooms must be from the same school and be participating in the same session.

Any scheduled tour can easily be rescheduled and exchanged between a virtual or in-person experience in order to best meet the needs of our educational community as the situation changes throughout the year. To better accommodate the needs of students and educators, the B&O will work with teachers to switch any field trip from virtual to on-site or on-site to virtual, as needed.

Please feel free to reach out to our education department with any questions or requests at edu@borail.org or 443-627-2382.

PLAN YOUR FIELD TRIP (IN PERSON OR VIRTUAL)

Using the current MSDE curriculum standards we have designed 9 curated programs aligned to specific student grade levels. Use the below chart to determine recommended programs for your grade level. Applicable standards for each program can be found on page 8. Each Field Trip includes 2 activities. After choosing your groups program, determine the two activities for your field trip from the list beginning on page 4.

Curated Program	Pre-K	K	1st	2nd	3rd	4th	5th	Middle School	High School
African American Railroading Legacy						✓	✓	✓	✓
The Civil War							✓	✓	
Commerce on the Railroad	✓	✓	✓	✓				✓	✓
Environmental Impact					✓	✓	✓	✓	✓
Global Conflict and the Railroad								✓	✓
Maryland History on the B&O Railroad					✓	✓	✓	✓	✓
Railroad Safety	✓	✓	✓	✓					
Railroad Technology					✓		✓	✓	✓
The Underground Railroad						✓	✓	✓	
Build Your Own Field Trip	✓	✓	✓	✓	✓	✓	✓	✓	✓

CURATED PROGRAM DETAILS

Customize your field trip by choosing 2 activities from your desired theme listed below:

African American Legacy: Applicable standards for grades 4, 5, Middle School & High School

Explore the legacy of African American's on the railroad from the laying of the first tracks and the B&O's connection to the Underground Railroad, through the Civil War Era and into the Civil Rights Movement.

→ Choose Two From the List Below:

- ☐ **TOUR:** From Slavery to Civil Rights: The African American Railroading Legacy
- ☐ **WORKSHOP:** Primary Source Detective Workshop
- ☐ **RAILROAD STORYTIME:** Includes book read a-loud and a short accompanying activity. Choose between Northbound: A Train Ride Out of Segregation by Michael S. Bandy & Eric Stein or The Pullman Porter: An American Journey by Vanita Oelschlager
- ☐ **TRAIN RIDE** down the first mile of the B&O Railroad aboard the Mile One Express (available Wednesday-Friday)

The Civil War: Applicable standards for grades 5 & Middle School

This program will explore the world first major war that was fought using the railroad, the US Civil War. Discover the impact the B&O Railroad had on the outcome of the war and how people interacted with the railroad during this time.

→ Choose Two From the List Below:

- ☐ **TOUR:** The Civil War: The War Came By Train
- ☐ **WORKSHOP:** Artifact Exploration of Life During the Civil War
- ☐ **STORYTIME:** Includes book read a-loud and a short accompanying activity. Choose between How Kate Warne Saved President Lincoln by Elizabeth Van Steenwyk or William Still and His Freedom Stories: The Father of the Underground Railroad by Don Tate
- ☐ **TRAIN RIDE** down the first mile of the B&O Railroad aboard the Mile One Express (available Wednesday-Friday)

Commerce on the Railroad: Applicable standards for grades PreK-2, Middle School & High School

This program will explore the history of freight transport on the railroad. Learn about different types of freight cars and how the railroad bolstered cultural diffusion around the world.

→ Choose Two From the List Below:

- ☐ **TOUR:** The B&O Goes Bananas: The Journey from Trees to Our Tables (for grades PreK-2)
- ☐ **TOUR:** The B&O Goes Bananas: The Progression of Global Freight Transport (for grades 6+)
- ☐ **WORKSHOP:** What's In That Train Car? Workshop (grades PreK-2)
- ☐ **WORKSHOP:** PVC Freight Car Challenge (grades 6+)
- ☐ **STORYTIME:** Includes book read a-loud and a short accompanying activity. Choose between Trains by Gail Gibbons or Trains Coming Through! by Stephanie Morgan
- ☐ **TRAIN RIDE** down the first mile of the B&O Railroad aboard the Mile One Express (available Wednesday-Friday)

CURATED PROGRAM DETAILS

Environmental Impact: Applicable standards for grades 3-5, Middle School & High School

In this program, students will discover the evolution of fuel types on the railroad and the environmental impact of each.

→ Choose Two From the List Below:

- ☐ **TOUR:** Fueling America's Railroads: Climate Change and the Evolution of Fuel Types
- ☐ **WORKSHOP:** The Carbon Cycle Workshop (grades 3-5)
- ☐ **WORKSHOP:** Renewable Resources and Transportation Workshop (Middle School & High School)
- ☐ **RAILROAD STORYTIME:** Includes book read a-loud and a short accompanying activity. Choose between The Story of Climate Change by Catherine Barr and Steve Williams or The Magic School Bus and the Climate Challenge by Joanna Cole and Bruce Dugan
- ☐ **TRAIN RIDE** down the first mile of the B&O Railroad aboard the Mile One Express (available Wednesday-Friday)

Global Conflict and the Railroad: Applicable standards for Middle School & High School

This program will explore the contribution and involvement of the B&O Railroad during major global wars including the US Civil War, World War I and World War II.

→ Choose Two From the List Below:

- ☐ **TOUR:** Iron War Horses: The B&O's Contributions During Global Conflict
- ☐ **WORKSHOP:** War and the Railroad Workshop
- ☐ **TRAIN RIDE** down the first mile of the B&O Railroad aboard the Mile One Express (available Wednesday-Friday)

Maryland History on the B&O Railroad: Applicable standards for grades 3-5, Middle School & High School

This program will explore the ways that the B&O Railroad has contributed to major historic moments in Maryland state history. Students will learn about the development of the B&O Railroad, the invention of the telegraph and the Civil Rights Movement among many other topics.

Choose Two From the List Below:

- ☐ **TOUR:** Maryland on the Rails: The B&O's Contribution to Maryland History
- ☐ **WORKSHOP:** Maryland and Morse Code Workshop
- ☐ **STORYTIME:** Includes book read a-loud and a short accompanying activity. Choose between B is for Blue Crab: A Maryland Alphabet by Shirley Menendez or Henry's Freedom Box: A True Story from the Underground Railroad by Ellen Levin and Kadir Nelson
- ☐ **TRAIN RIDE** down the first mile of the B&O Railroad aboard the Mile One Express (available Wednesday-Friday)

CURATED PROGRAM DETAILS

Railroad Safety: Applicable standards for grades PreK-2

In this program, students will learn how the railroad keeps it's workers and passengers safe now and throughout the past 200 years of B&O Railroad history.

→ Choose Two From the List Below:

- ☐ **TOUR:** Railroad Signs and Signals: The Evolution of Visual Communication on the Railroad
- ☐ **WORKSHOP:** Design a Safe Community Workshop
- ☐ **RAILROAD STORYTIME:** Includes book read a-loud and a short accompanying activity. Choose between Trains and Tracks by Operation Life Saver or Clifford and the Railroad Crossing by Norman Bridwell
- ☐ **TRAIN RIDE** down the first mile of the B&O Railroad aboard the Mile One Express (available Wednesday-Friday)

Railroad Technology: Applicable standards for grades 3, 5, Middle School & High School

This program will explore the evolution of technology used on the railroad from the first passenger cars pulled by horses to the modern high speed rail.

→ Choose Two From the List Below:

- ☐ **TOUR:** Technology Changes: Innovations in Locomotive Design
- ☐ **WORKSHOP:** On Your Mark, Get Set, Go! LEGO Workshop (grades 3-5)
- ☐ **WORKSHOP:** Engineer a Bridge Workshop (grades 6+)
- ☐ **TRAIN RIDE** down the first mile of the B&O Railroad aboard the Mile One Express (available Wednesday-Friday)

The Underground Railroad: Applicable standards for grades 4, 5, and Middle School

This program will connect the Underground Railroad and the B&O Railroad by exploring the journeys of multiple freedom seekers and the declaration of Mount Clare Station as a historic Network to Freedom Site.

→ Choose Two From the List Below:

- ☐ **TOUR:** The Underground Railroad: A Path to Freedom
- ☐ **WORKSHOP:** Reflecting through Monoprint Design
- ☐ **RAILROAD STORYTIME:** Includes book read-aloud of Henry's Freedom Box: A True Story from the Underground Railroad by Ellen Levine and Kadir Nelson and short accompanying activity.
- ☐ **TRAIN RIDE** down the first mile of the B&O Railroad aboard the Mile One Express (available Wednesday – Friday)

Build Your Own Field Trip: Grades PreK-12

Would you prefer an interdisciplinary field trip that explores topics across subjects? Choose the "Build Your Own Field Trip" and mix and match any two activities from the themes listed above. Activities chosen from themes outside your grade level may not have applicable curriculum standards for your students.



PRICING AT A GLANCE

School Group Type	Virtual Program	Curated Program (includes 2 activities)	Additional Chaperones	One Hour Reserved Lunch Space
<ul style="list-style-type: none"> ➤ Maryland Title I ➤ Headstart Center 	Free	Free	Free	Free
<ul style="list-style-type: none"> ➤ Maryland Non-Title I Public ➤ Maryland Homeschool Group 	Free*	Free*	\$10/person \$3/train ride	Outdoor pavilion free Indoor Space \$50
<ul style="list-style-type: none"> ➤ All Other Schools 	\$150/session	\$18/kid	\$10/person \$3/train ride	Outdoor pavilion free Indoor Space \$50

*Free while funding is still available. Once funding has been exhausted, some fees may apply.

The museum requires one adult chaperone for every eight students. One chaperone receives free admission for every eight students. Teachers, 1:1 aides and school nurses always receive free admission with school group. Additional chaperone admission costs may be required, as indicated above.

Reserved dining spaces will be made available on a first-come, first-served basis and provided when available.



DETAILED EDUCATION STANDARDS

African American Railroading Legacy Program:

- 4th Grade MSDE SS Essential Question: What causes people to deny freedom to others?
- 4th Grade MSDE SS Essential Question: How did slavery shape Maryland as a colony?
- 5th Grade MSDE SS Essential Question: How did conflicts over slavery result in the Civil War?
- 5th Grade MSDE SS Essential Question: How did the conclusion of the Civil War affect the United States (North and South) and Maryland?
- 5th Grade MSDE SS Essential Question: How has government evolved to expand the meaning of “We the People”?
- 8th Grade MSDE SS Essential Question: How did regional tensions challenge national unity?
- 8th Grade MSDE SS Essential Question: How does war impact and change society?
- 8th Grade MSDE SS Essential Questions: How does a nation reconcile past injustices?
- High School US History MSDE SS Essential Question: To what extent can individuals and groups change society?
- High School US History MSDE SS Essential Question: Were the freedom movements successful in achieving equality for Americans?

The Civil War Program:

- 5th Grade MSDE SS Essential Question: How did conflicts over slavery result in the Civil War?
- 5th Grade MSDE SS Essential Question: How did the conclusion of the Civil War affect the United States (North and South) and Maryland?
- 8th Grade MSDE SS Essential Question: How did regional tensions challenge national unity?
- 8th Grade MSDE SS Essential Question: Essential Question: What factors lead a country to civil war?
- 8th Grade MSDE SS Essential Question: How does war impact and change society?

Commerce on the Railroad Program:

- Pre-K MSDE SS Essential Question: How do people connect?
- Pre-K MSDE SS Essential Question: Why do people trade?
- Kindergarten MSDE SS Essential Question: How do movement of goods and ideas influence the growth of a community?
- Kindergarten MSDE SS Essential Question: Why do people trade?
- Kindergarten MSDE SS Essential Question: How is our school different today than in the past?
- 1st Grade MSDE SS Essential Question: How do movement of goods and ideas influence the growth of a community?
- 1st Grade MSDE SS Essential Question: Why do people trade goods and services?

Commerce on the Railroad Program (continued):

- 2nd Grade MSDE SS Essential Question: How does the movement of goods and ideas influence the growth of a community?
- 2nd Grade MSDE SS Essential Question: How do individuals and groups produce goods and services?
- 2nd Grade MSDE SS Essential Question: How is life different today than in the past?
- 7th Grade MSDE 7-SS-2.B.1: Analyze how diverse cultures shape a pluralistic society
- 7th Grade MSDE 7-SS-4.A.3: Analyze how technological changes have affected the consumption and production in the contemporary world
- 7th Grade MSDE 7-SS-4.A.4: Compare the levels of specialization and economic development in different parts of the contemporary world
- 7th Grade MSDE 7-SS-5.B.1: Analyze the growth and the development of nations in the contemporary world
- 8th Grade MSDE SS Essential Question: Did American Westward Expansion challenge and promote national unity?
- High School US History MSDE SS Essential Question: Did American Westward Expansion challenge and promote national unity?
- High School US History MSDE SS Essential Question: Was American imperialistic growth consistent with democratic ideals?
- Middle and High School NGSS DCI (Engineering): ETS1.A: Defining and Delimiting an Engineering Problem
- Middle and High School NGSS DCI (Engineering): ETS1.B: Developing Possible Solutions
- Middle and High School NGSS DCI (Engineering): ETS1.C: Optimizing the Design Solution

Environmental Impact Program:

- 3rd Grade MSDE SS Essential Question: What impact does economic development have on Maryland's natural environment?
- 4th Grade NGSS DCI (Earth Science): 4-ESS3.A: Natural Resources
- 5th Grade NGSS DCI (Earth Science): 5-ESS3.C: Human Impacts on Earth Systems
- Middle School NGSS DCI (Earth and Space Science): MS-ESS3.C: Human Impacts on Earth Systems
- Middle School NGSS DCI (Earth and Space Science): MS-ESS3.D: Global Climate Change
- 7th Grade MSDE 7-SS-1.A.3: Analyze the roles of governments around the world regarding public policy and issues
- 7th Grade MSDE 7-SS-3.D.1: Analyze why and how people in contemporary world regions modify their natural environment and the impact of those modifications
- 8th Grade MSDE SS Essential Question: How did regional tensions challenge national unity?
- 8th Grade MSDE SS Essential Question: Did the benefits of post-Civil War industrialization outweigh the costs?
- High School US History MSDE SS Essential Question: Did the benefits of post-Civil War industrialization outweigh the costs?
- High School US History MSDE SS Essential Question: Did the 1920s preserve the past or invent the future?
- High School NGSS DCI (Earth and Space Science): HS-ESS2.D: Weather and Climate
- High School NGSS DCI (Earth and Space Science): HS-ESS3.C: Human Impacts on Earth Systems
- High School NGSS DCI (Earth and Space Science): HS-ESS3.D: Global Climate Change

Global Conflict and the Railroad Program:

- 7th Grade MSDE 7-SS-1.A.2: Analyze the historic events, documents, and practices that are the foundations of political systems around the world
- 7th Grade MSDE 7-SS-2.C.1.a-b: Analyze major sources of tension, cooperation, and conflict in the world and the efforts that have been made to address them
- High School US History MSDE SS Essential Question: How did involvement in a global conflict change America?
- High School US History MSDE SS Essential Question: Did the 1920s preserve the past or invent the future?
- High School US History MSDE SS Essential Question: What is the role of the United States in world affairs in times of crisis?

Maryland History on the B&O Railroad Program:

- 3rd Grade MSDE SS Essential Question: Why do industries differ across the state of Maryland?
- 3rd Grade MSDE SS Essential Question: How are people impacted by economic development in Maryland?
- 3rd Grade MSDE SS Essential Question: What impact does economic development have on Maryland's natural environment?
- 3rd Grade MSDE SS Essential Question: Essential Question: How did people live in the past?
- 4th Grade MSDE SS Essential Question: Is exploration good for all?
- 4th Grade MSDE SS Essential Question: How does where you live, impact how you live?
- 4th Grade MSDE SS Essential Question: How did slavery shape Maryland as a colony?
- 5th Grade MSDE SS Essential Question: How did conflicts over slavery result in the Civil War?
- 5th Grade MSDE SS Essential Question: How did the conclusion of the Civil War affect the United States (North and South) and Maryland?
- 5th Grade MSDE SS Essential Question: How has government evolved to expand the meaning of "We the People"?
- 8th Grade MSDE SS Essential Question: Essential Question: What fostered the development of distinct regions in colonial North America?
- 8th Grade MSDE SS Essential Question: How did regional tensions challenge national unity?
- 8th Grade MSDE SS Essential Question: What factors lead a country to civil war?
- 8th Grade MSDE SS Essential Question: How does a nation reconcile past injustices?
- High School US History MSDE SS Essential Question: To what extent did post-war economic growth distribute benefits equitably?

Railroad Safety Program:

- Pre-K MSDE SS Essential Question: Why do we have rules at home, at school and in the community?
- Pre-K MSDE SS Essential Question: How do people connect?
- Kindergarten MSDE SS Essential Question: Why do we have rules at home, at school and in the community?
- Kindergarten MSDE SS Essential Question: How do movement of goods and ideas influence the growth of a community?
- Kindergarten MSDE SS Essential Question: How is our school different today than in the past?

Railroad Safety Program (continued):

- 1st Grade MSDE SS Essential Question: How do movement of goods and ideas influence the growth of a community?
- 1st Grade MSDE SS Essential Question: How is our school different today than in the past?
- 2nd Grade MSDE SS Essential Question: How do movement of goods and ideas influence the growth of a community?
- 2nd Grade MSDE SS Essential Question: How is life different today than in the past?

Railroad Technology Program:

- 3rd Grade MSDE SS Essential Question: How are people impacted by economic development in Maryland?
- 3rd Grade MSDE SS Essential Question: What impact does economic development have on Maryland's natural environment?
- 5th Grade MSDE SS Essential Question: Do the benefits of post-Civil War industrialization outweigh the costs?
- 8th Grade MSDE SS Essential Question: How did regional tensions challenge national unity?
- 8th Grade MSDE SS Essential Questions: Did the benefits of post-Civil War industrialization outweigh the costs?
- 3rd Grade, 5th Grade, Middle and High School NGSS DCI (Engineering): ETS1.A: Defining and Delimiting an Engineering Problem
- 3rd Grade, 5th Grade, Middle and High School NGSS DCI (Engineering): ETS1.B: Developing Possible Solutions
- 3rd Grade, 5th Grade, Middle and High School NGSS DCI (Engineering): ETS1.C: Optimizing the Design Solution

The Underground Railroad Program:

- 4th Grade MSDE SS Essential Question: What causes people to deny freedom to others?
- 4th Grade MSDE SS Essential Question: How did slavery shape Maryland as a colony?
- 5th Grade MSDE SS Essential Question: How did conflicts over slavery result in the Civil War?
- Middle School US History MSDE SS Essential Question: How did regional tensions challenge national unity?
- Middle School US History MSDE SS Essential Question: How can individuals and groups affect social change?

MORE INFORMATION

For complete booking information, please visit www.borail.org.

Questions? Contact our Education Department: edu@borail.org | 443-627-2382.

BUS PARKING

We offer convenient and complimentary parking for all our guests. We are equipped to accommodate several buses in our front parking lot by the museum entrance. Upon arrival, our parking security guard will guide bus drivers where to park. Buses are free to remain on site during the duration of your trip.

LUNCH FACILITIES

You can reserve either our outdoor pavilion or our indoor Education Station (\$50) for your students for lunch. Each rental is for a scheduled, one-hour lunch time. We also offer several unreserved picnic tables outside around the Kids Rides area. These picnic tables are available on a first-come, first-serve basis. Please contact us to reserve a dining facility.

CAFÉ

The cafe also offers lunch, beverages and snacks in our vending area year-round. The Café is open Monday–Sunday, 10 AM–3 PM. There are additional restrooms located inside the cafe, as well. Due to city regulations, groups cannot bring outside food into the cafe.

GIFT SHOP

Our on-site gift shop is available for all our guests and groups to enjoy throughout the duration of your trip. If your group would like to schedule to shop during their visit, we would be happy to include that in your schedule.

MILE ONE EXPRESS TRAIN RIDE

We are home to the historic first mile of commercial railroad track in the country! Students can travel on a real train along this historic route. Informative audio will narrate the train ride and point out important landmarks throughout the ride, while docents are positioned on each car to answer any questions you may have during the trip. While we make every effort to accommodate all groups and guests on the train, we cannot delay departure for groups running late. Train rides schedule varies seasonally. For the most up to date schedule, please visit our website at borail.org.



CHAPERONES & IDENTIFICATION

As you prepare for your upcoming trip, please note that we require one adult chaperone for every eight students throughout the duration of the trip. This helps to ensure that all of our guests have a safe and enjoyable experience. Students and chaperones should dress appropriately for expected weather conditions as you will need to go outside to access many exhibit areas.

RESERVATIONS & PAYMENT

Reservations are required at least two weeks prior to your planned visit.

Full payment is required five business days prior to your scheduled visit. Prices are subject to change without notice. Client assumes all responsibility and financial liabilities in the event of damages.

SAFETY

Our large campus contains about 40 acres, which includes both indoor and outdoor exhibit space. Please note that a big part of what makes our museum so unique is that it was an actual working railroad yard. There are train tracks and rails embedded into the ground that are still sometimes used by operating trains. We ask that students refrain from running, even when outside, as there may be tripping hazards. In the event that a member of your group becomes injured or requires medical treatment during your visit, please notify a member of our staff. We are equipped with several first aid devices, automated external defibrillators (AEDs), and can contact emergency medical response as needed.

ACCESSIBILITY

The B&O Railroad Museum is a recognized ADA accessible facility. All of the B&O's exhibition buildings as well as train platforms are equipped with ramps to accommodate those with mobility issues. The train ride is equipped with several positions for guests with wheelchairs, however spots are limited. To reserve tickets for wheelchair accessible cars, please contact us ahead of time.

SENSORY KITS

For our guests with sensory sensitivities, we have sensory kits stationed throughout the museum as well as mobile sensory backpacks available for rent during your visit. These kits contain noise-canceling headphones, timers, feelings chart, and fidgets. For on-site assistance, please reach out to any staff member, all of whom have undergone sensory awareness training through the Autism Society of Baltimore-Chesapeake.

