TOM LEE PARK CURRICULUM

MEMPHIS, TN

SCAPE

The Active Core of Tom Lee Park, including the Tyre Nichols Sunset Canopy and Life on the River Playground. Photo © Connor Ryan.

Celebrated as a national model for inclusive placemaking and ecologically restorative urban design, Tom Lee Park—once a vast expanse of open lawn—is now a vibrant, welcoming destination that reconnects Memphians with their riverfront.[1] **In 2023, SCAPE and the Memphis River Parks Partnership developed a curriculum to highlight the park as a living laboratory and learning landscape, offering local students hands-on learning experiences and citizen science projects in their new riverfront park.**

PROJECT

- The 31-acre Tom Lee Park reopened to the public on September 2, 2023, with an opening day celebration filled with pride and a strong sense of community among many Memphians. Memphis River Parks Partnership envisioned the park as a welcoming, inclusive space for all, promoting the phrase “Hi Neighbor” to reinforce a feeling of belonging.[2] Their messaging positions the park as a common ground—designed for many activities and accessible to everyone, including students and young Memphians.
- In addition to its diverse spaces and placemaking features that offer community amenities and foster an inclusive, welcoming environment, the park is also designed as a living laboratory and learning landscape. Features that provide educational opportunities include:

PROJECT

Riverfront Park

CLIENT

Memphis River Parks Partnership

LANDSCAPE ARCHITECT

SCAPE

EDUCATOR

Memphis River Parks Partnership, Memphis-Shelby County Schools

CURRICULUM

Tom Lee Park Curriculum

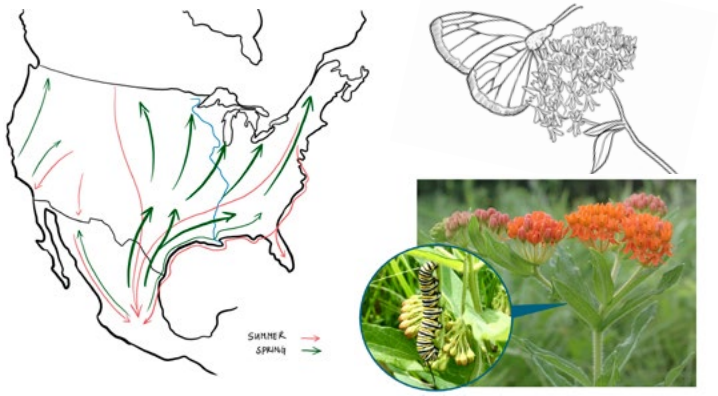
SELF-GUIDED — **CLASSROOM-INTEGRATED**

- **Riparian tree canopy:** Once an open lawn with little shade, the park now has over 1,000 trees, including more than 300 native oaks. These trees provide critical habitat for birds and insects and offer much-needed shade as Memphis temperatures rise. Highlighting oak trees—as Doug Tallamy explains in *The Nature of Oaks* as the species that supports the most life—helps students understand trees as essential urban infrastructure that improves biodiversity, reduces heat, and enhances overall environmental quality.[3]
- **Biodiverse meadows:** The park features several meadow areas, including the Shoreline Meadow, designed to support pollinators and enhance plant biodiversity. Planted with milkweed species that attract Monarch butterflies, the Shoreline Meadow highlights the Mississippi River as a key migration corridor.
- **Insect host species:** The park features a variety of plant species that support native insect populations. For example, pawpaw (*Asimina triloba*), planted near the pollinator lab along the river's edge, serves as a host plant for the larvae of the zebra swallowtail butterfly. In addition to enhancing the park's biodiversity, these plant–insect pairings offer an opportunity to highlight the vital role of plant diversity in supporting pollinator habitats within communities.[3]
- **Improved soil profiles**: Much of the park's transformation happened below the surface, with restored soil profiles that support healthy trees and understory plants. These improvements enhance habitat and help manage stormwater runoff into the river. For students, the soils, the plants, and the water cycle as a system illustrates the unseen relationships that sustain life and have broader systemic impacts.
- **Park topography**: Along the adjacent roadway, planted berms reduce noise and create a safety buffer from the roadway. Students often don't notice how much quieter it is on the other side—until prompted to observe the difference.

• Areas intentionally designed to facilitate learning in the landscape:

- **The Rhodes Pollinator Lab and Buckman Outdoor Classroom:** Located at the park's southern end, the pollinator lab is a wood deck with a sunken seating area surrounding a native pollinator garden. Designed for group learning, the space highlights local pollinators and native plants, a platform to teach plant-insect relationships to students.

Riparian tree canopy. Top image: John Donnelly, SCAPE The oaks in cross section illustration from the curriculum. Bottom image: *Tom Lee Park Curriculum,* SCAPE.



The Rhodes Pollinator Lab is an outdoor classroom in the wilder part of the park (Habitat Terraces), where students can learn about host plant - insect relationships. Above: Rhodes Pollinator Lab Below: Monarch migration and host plant illustrations from the curriculum (SCAPE)

- **The Prospect:** The stone staircase and amphitheater overlooking the river provide seating for large class groups to gather and offer a space for teachers to conduct lessons.
- **Life on the River Playground:** This playground celebrates the animals and species of the Mississippi River and its floodplains, introducing kids to the river's rich biodiversity through play.
- **Park facilities and structures:** The park offers amenities that enhance the experience for teachers and students, including: Beale Street Landing (an indoor hub); the *Tyre Nichols Sunset Canopy* (a shaded meeting area); the picnic deck with tables for lunch and small class breakout sessions; and pavilions with storage, restrooms, and access to water and food.

High school students gather on the Prospect steps. Photo © Connor Ryan courtesy of Memphis River Parks Partnership.

Children explore the Life on the River Playground. Photo © Allen Gillespie and Memphis Tourism.

CLIENT

• Memphis River Parks Partnership is a nonprofit 501(c)(3) public-private partnership that works with and for the people of Memphis to trigger the transformative power of our river. In 2017, a Riverfront Concept Plan was commissioned to reimagine six miles of underutilized riverfront parks—including Tom Lee Park.[4] The

Students identify wildlife in The Rhodes Pollinator Lab. Photo, Memphis River Parks Partnership.

Partnership spearheaded a major fundraising campaign to bring the project to life and hired SCAPE and Studio Gang to lead the park's design.

- The Partnership positions the riverfront as a living laboratory, offering educational programs, citizen science initiatives, and green career training for local Memphis students. These opportunities include field trips, the Tom Lee Park Curriculum, high school internships, and park ranger apprenticeships.[5]

- During the construction of Tom Lee Park, the Partnership funded the development of the Tom Lee Park Curriculum and other education initiatives through its operating budget and grants.[5]

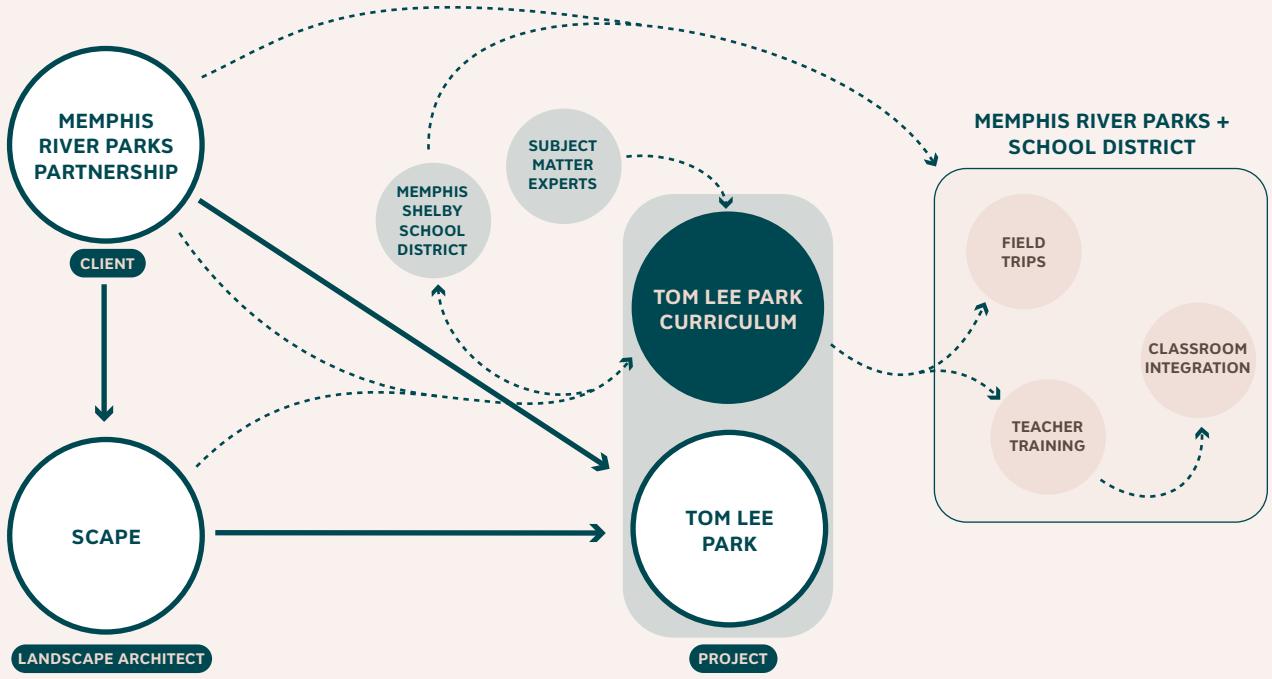
CURRICULUM

- The *Tom Lee Park Curriculum* is a free educational resource available to teachers in the Memphis-Shelby County School District. It engages local students in learning about **river systems, urban ecology, and public health through the lens of Tom Lee Park.**

- The curriculum is a 7th-9th grade curriculum **designed for easy classroom integration.** Lessons are straightforward and do not require significant additional equipment, reducing the barrier of entry to adopt in classrooms. SCAPE and The Partnership also worked with Terilyn McChriston, Ed.S., the STEM Manager at Memphis-Shelby County Schools, to ensure **the curriculum aligns with the district's STEM initiatives** and Tennessee State Science Standards. **Each lesson in the curriculum specifies the applicable state science learning outcomes** the content meets, making it a useful tool for local teachers.[6]

- The *Tom Lee Park Curriculum* consists of three core lessons that operate at different scales to reinforce how the park is part of a larger, connected ecological system:
  - ***Living River System*** - Focuses on local watersheds and the water cycles at Tom Lee Park, along the Mississippi River.
  - ***Bountiful Landscape*** - Explores the plants, animals, birds, and insects in Tom Lee Park, emphasizing insect host species and the restored oak canopy.
  - ***Thriving Community*** - Examines the public health benefits Tom Lee Park brings to the community, including attenuating noise pollution and reducing the urban heat island effect.[7]

PARTNERSHIP DIAGRAM



LANDSCAPE ARCHITECT'S ROLE

SCAPE, the lead park designer, developed and wrote the curriculum over two months during the park's construction, in collaboration with the Partnership, Memphis-Shelby County School District, and subject matter experts from the University of Memphis.

Danny Rose, a landscape architect at SCAPE and a licensed biology educator in Tennessee at the time, played a pivotal role in providing curriculum development expertise.[6]

In lesson three, *A Thriving Community,* students take heat readings on different surfaces in the park. Photo © Connor Ryan courtesy of Memphis River Parks Partnership.

In lesson two, *A Bountiful Landscape,* students go on a scavenger hunt to identify all the different oak species in the park, and see if they can spot the wildlife in the canopy. Photo © Connor Ryan courtesy of Memphis River Parks Partnership.

The curriculum includes information on how to use the document, background reading, learning objectives, and identifies education standards to make the document a useful tool to local educators.

- The curriculum is designed to occur both in the classroom and in Tom Lee Park. Each lesson spans 3 - 4 class periods, including at least one session in the park. It provides outlines with introductory information, academic standards, and learning objectives; graphics for classroom and on-site activities; step-by-step teacher guides; materials (flashcards, worksheets, etc.); and suggestions to extend the learning. The curriculum uses the standard "5E lesson planning" framework, a common model in science education.[7]

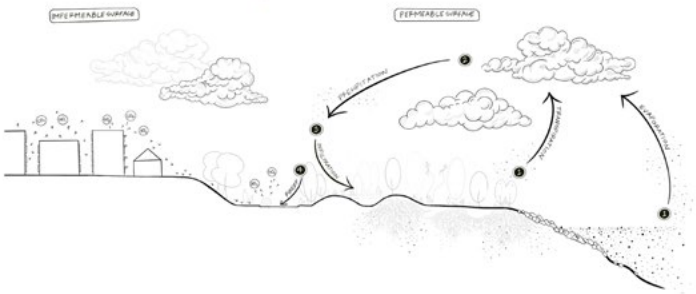
- SCAPE consulted with subject matter experts from the University of Memphis who advised the team on topics to include in each chapter that would resonate most with Memphis students.[6]

- In 2023 - 24, The Partnership collaborated with Memphis-Shelby County Schools to bring every 3rd and 9th grader in the school district to Tom Lee Park for field trips, where students engaged with the curriculum through scavenger hunts and guided walks. The Partnership continues to work with the district to maintain field trip partnerships and support teachers who are interested in incorporating the curriculum in their classrooms.[8]

- The Partnership has started the process of developing a teacher training fellowship to train teachers on how to incorporate the curriculum into their classrooms and to create a coalition of educators in the school district to support and champion the curriculum. This initiative is in development.[8]

EDUCATOR

- In this project, there was no single entity acting as the "Educator." Instead, expertise came from a collaboration between the Client, the Landscape Architect, and the school district. The Client provided the programming to host the curriculum through its



In lesson one, *A Living River System*, students learn about the water cycle in Tom Lee Park and their local watersheds. Illustration by SCAPE.

education and citizen science initiatives. SCAPE, with an in-house teacher, developed the curriculum and aligned it with state learning standards. The Memphis-Shelby County School District's STEM coordinator reviewed the lesson plans to ensure alignment with district goals and supported efforts to bring students to the park.

- To supplement the curriculum, The Partnership adapted the content to support guided field trips, condensing key lessons into a single day-long visit to the park that was appropriate for a wider range of age groups.[9]

- The Partnership continues to work with the district to maintain field trip partnerships and support teachers who are interested in incorporating the curriculum in their classrooms. Challenges cited by former leaders at The Partnership include difficulties maintaining strong relationships with the school district and finding advocates within the system to champion the curriculum.[5]

- While still in development, the teacher training fellowship has been identified by The Partnership as an opportunity to strengthen support for the curriculum, sustain partnerships, and train teachers to effectively implement the curriculum.[8,9]

- The high school internships and park ranger apprenticeships also provide pathways for young people who are not immediately college bound to pursue interests in environmental career paths.[5]

KEY LESSONS

1 The park was designed as a learning landscape from the start, creating a strong connection between the curriculum and the site.

SCAPE led the design with a strong ecological approach and embedded physical spaces to support teaching. The content for the curriculum was already there—it just needed to be translated into a format accessible to students.

2 With expertise in the park design, its science, and in education, SCAPE was able to develop the curriculum in-house.

The same designers for the park also worked on the curriculum, and one of them, Danny Rose, was a licensed biology teacher in Tennessee at the time. This is rare in most landscape firms and underscores the value of partnering with an organization to provide education and teaching expertise.

3 Aligning the curriculum with state science standards and consulting the school district's STEM coordinator made the curriculum a more effective tool for local educators.

For a curriculum to be successfully integrated into the classroom, it must align closely with existing teaching goals. Teachers are more likely to adopt new materials that support topics they are already covering, because it is often challenging to introduce entirely new content.

4 Maintaining a partnership with the school district is not easy, but essential to keep the work going.

In the case of The Partnership, limited internal resources make it difficult to navigate the complexities of the school system. Having someone within the system to champion the curriculum has proved difficult but necessary to keep the partnership with the school district alive.[5] Additionally, field trips to the park depend on available funding and pose logistical challenges for teachers.[9]

RESOURCES & REFERENCES

1 Tom Lee Park: Come to the River, 2024 ASLA Professional Awards

2 Inclusive Placemaking, Tom Lee Park, Memphis, Bloomberg Center for Public Innovation and Johns Hopkins University

3 Tom Lee Park Ecological Systems and Planting Design, SCAPE

4 Come to the River, The Memphis River Parks Partnership

7 Tom Lee Park Curriculum

PROFESSIONALS INTERVIEWED

5 Carol Coletta, former CEO of the Memphis River Parks Partnership

6 Danny Rose, Associate, SCAPE

8 Jasmine Stokes, Director of Programming, Memphis River Parks Partnership

9 Michalyn Easter-Thomas, Former Education Director of Memphis River Parks Partnership, former Memphis-Shelby County School Board Member, and current Memphis City Councilwoman

***Landscapes are Learning Labs**, June 2025*

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