

Middle School
Self-Guided Itinerary

Human Impact on Ecosystems

at the Ford Rouge Factory Tour

Grades 6-8 Self-Guided Itinerary

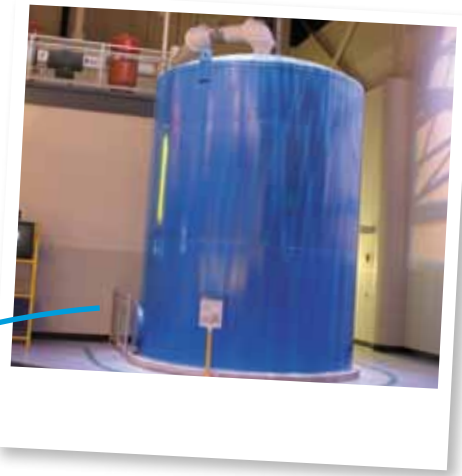


Human Impact on Ecosystems

at the Ford Rouge Factory Tour

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Use this self-guided itinerary as you explore the Legacy and Art of Manufacturing theaters, the Observation Deck, the Assembly Line and the Living Lab. You will see how human activity impacts the ecosystem in the real world.



I. LEGACY GALLERY AND THEATER

Learn more about the environmental benefits of the [cistern](#) in the lobby of the Legacy Gallery by reading the signs posted around it.

Q How many gallons of water does it hold?

Q Where does this water come from?

Q What is this water used for?

Historical Connection: As you watch the film in the Legacy Theater on the history of the Ford Rouge Complex, consider environmental attitudes at the time of construction and industrialization. Based on what you see in the movie, **how would you describe the public's regard for the environment in the early 20th to mid-20th century?**

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II. OBSERVATION DECK

A) Visit the observation deck to learn more about the history of the Ford Rouge Complex and to get a bird's-eye view of the Dearborn Truck Plant's environmental innovations in action!

Find evidence of three ways the Dearborn Truck Plant is designed to help the local environment.

What I see:

Example: Solar panels

How it helps:

Uses energy from sun to produce electricity

1)

2)

3)



DID YOU KNOW? The *Ford Rouge Factory Tour* Visitor Center was awarded a Leadership in Energy and Environmental Design (LEED) gold award in 2003, honoring elements of its design that conserve energy and water, reduce CO2 emissions, improve indoor air quality and protect resources.

B) Find the kiosk in the Observation Deck to learn more about green building design pioneer William McDonough and his work at the Ford Rouge Complex.

1) What were McDonough’s goals for the environment in and around the Dearborn Truck Plant?

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C) As part of McDonough’s philosophy of “Cradle to Cradle,” he always asks the following question before he starts the design process for a project: **“How do we love all of the children of all species for all time?”**

1) How do the environmental innovations at the Ford Rouge Complex address his question?

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The Story of the Rouge – use the labels to answer the following questions:

D) How did Henry Ford stabilize the land at the Rouge in preparation for building his factory?

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E) Who is William Clay Ford Jr.?

F) How did William Clay Ford Jr. plan on making the Rouge an icon of “the next Industrial Revolution”?

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21ST-CENTURY PROBE: According to William Clay Ford Jr., “A good company delivers excellent products and services. A great company does all that and strives to make the world a better place.” How can other companies use the environmental innovations at the Dearborn Truck Plant as a model for responsible manufacturing? How can you as a consumer support companies that protect the environment?

G) How does the living roof save money?

.....

H) How large is the living roof?

I) With which type of plant covers the living roof?

J) What four layers can be found beneath the plants on the living roof?

.....

K) What species of birds can now be found at the Ford Rouge?

.....

21ST-CENTURY PROBE: Imagine you are an architect. A company turns to you to design its new factory. What ideas would you use to convince the company to adopt “green” building guidelines? What advantages could you describe?

III. ASSEMBLY LINE

When discussing the topic of environmental quality, it is important to consider the health and well-being of the people who live and work in that environment. As you tour the walkway above the assembly line floor, look for innovations that benefit the employees of Ford Motor Company.

Ergonomics: The science of designing the job, equipment and workplace to fit the worker.

? What innovations have been implemented at the Dearborn Truck Plant to manage the health, well-being and working conditions of the employees?

Innovation:

Benefit to Employees:

-
-
-

4. LIVING LAB — GUIDED TOUR (available, weather permitting, mid-May to mid-October)

Tour the Living Laboratory and observe how wildlife has returned to the Rouge.

? How do the living roof, wetlands and swales work together to manage storm water?

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? How did this system of storm water management save Ford Motor Company money?

.....

? What roles do the songbirds and honeybees play in this ecosystem?

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? What types of trees are planted in the orchard?

.....

? What other plants and animals do you see living in the wetlands and orchard?

Plants you see:

Animals you see:

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21ST-CENTURY PROBE: As you stand in the Living Lab, you'll hear a combination of natural and man-made sounds. What do these sounds tell you about this unique site?

DID YOU KNOW? The skylights and light boxes on the roof of the Dearborn Truck Plant can help save enough energy to electrify 1,000 homes. Solar energy is a renewable energy resource, which means it is naturally replenished.



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