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Ford Rouge Factory Tour

# K-12 Michigan Grade Level and Content Expectations related to Environmental Science at the Ford Rouge Factory Tour

Kindergarten
- Life Requirements
- Earth Materials

First Grade
- Life Requirements
- Life Cycles
- Solar Energy
- Earth Materials

Second Grade
- Life Requirements
- Water
- Water Movement

Third Grade
- Natural Resources
- Human Impact
- Earth Materials
- Surface Changes
- Using Earth Materials

Fourth Grade
- Life Requirements
- Interactions
- Changed Environment Effects

Fifth Grade
- Species Adaptation and Survival
- Relationships Among Organisms

Sixth Grade
- Energy Transfer
- Interactions of Organisms
- Relationships of Organisms
- Biotic and Abiotic Factors
- Environmental Impact of Organisms

Seventh Grade
- Energy Transfer
- Solar Energy Effects
- Solar Energy
- Human Consequences
- Weather and Climate
- Water Cycle
- Atmosphere

High School
Biology
- Populations, Communities, and Ecosystems (prerequisite)
- Relationships Among Organisms (prerequisite)
- Factors Influencing Ecosystems (prerequisite)
- Human Impact on Ecosystems (prerequisite)
- Photosynthesis and Respiration (prerequisite)
- Ecosystems
- Element Recombination
- Changes in Ecosystems
- Human Impact
- Environmental Factors

Chemistry
- Energy Transfer (prerequisite)
- Bronsted-Lowry

Earth Science
- Earth Systems Overview
- Energy in Earth Systems
- Biogeochemical Cycles
- Resources and Human Impacts on Earth Systems
- Water Cycle (prerequisite)
- Hydrogeology
- Climate Change

Physics
- Heat, Temperature and Efficiency

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*Outdoor Living Lab*—NEW! Guided Activity

Step outside and see how balancing the needs of environment, industry and society has made the Rouge Complex a leader in sustainable design  See and hear how the ecosystem in this industrial setting has been transformed and managed to create healthier soil, water and air.

Location:  Ford Rouge Factory Tour

Offered: Mid-April to mid-October, weather permitting

National Science Education Standards:  Science as Inquiry, Science in Personal and Social Perspectives, Science & Technology, Life Sciences, History and Nature of Science

Michigan Science Grade Level and High School Content Expectations:
1 – E.ES.E.1; 2 – E.FE.E.2; 3 – E.ES.E.4, E.ES.E.5, E.SE.E.3; 4 – L.EC.E.2; 5 – L.EV.M.1; 6 – L.EC.M.1, L.EC.M.4; 7 – E.ES.M.1, E.ES.M.4, E.ES.M.8; 9-12 – L3.p3, L3.p4, B3.4, B3.4x, B3.5x, E2.4, E4.p1, E4.1

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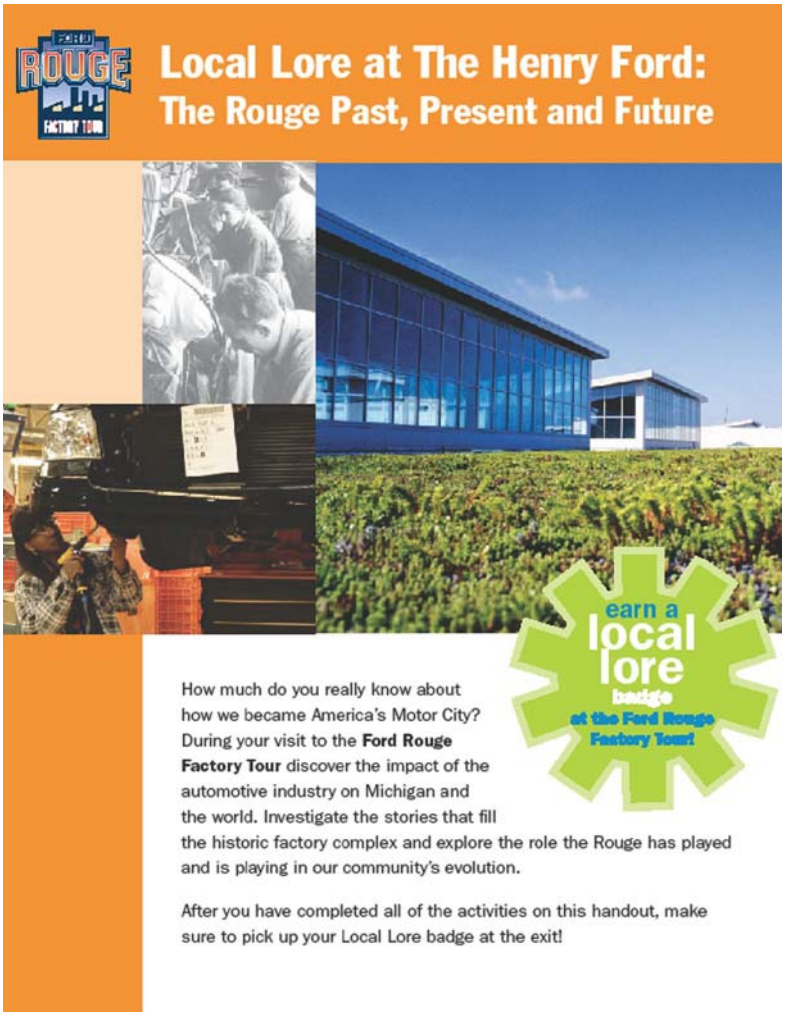

Local Lore at The Henry Ford:
The Rouge Past, Present and Future

earn a local lore badge at the Ford Rouge Factory Tour!

How much do you really know about how we became America's Motor City? During your visit to the **Ford Rouge Factory Tour** discover the impact of the automotive industry on Michigan and the world. Investigate the stories that fill the historic factory complex and explore the role the Rouge has played and is playing in our community's evolution.

After you have completed all of the activities on this handout, make sure to pick up your Local Lore badge at the exit!

The FRFT will be launching a series of new Girl Scout programs that will utilize its green technology as well as focus on the unique history of the Rouge factory as it relates to its community and its continued eco-friendly evolution.

Last spring we were able to prototype two new Girl Scout programs at the FRFT, *Local Lore at the Henry Ford: The Rouge Past, Present and Future* and *Careers at The Henry Ford: Girls in Tech*. These special engaging experiences were carefully designed to meet all the requirements of the specific badges.

Next year we are adding two more new and exciting Girl Scout Programs at the FRFT. The new badges include: *Architecture*, which will focus on LEED technology and will teach the girls how to design with the environment in mind and *Earth Connections* which will delve even further into the relationship the factory has with the earth around it. Scouts will have a number of hands-on opportunities as they explore the environmental initiatives that both surround and encompass the factory.