

NAME: _____



- Test Drive Smart Tools
- Windshield Install Area



MASS PRODUCTION: production of goods in large quantities made mostly by machines

VERTICAL INTEGRATION: occurs in a factory that makes every part needed for the car out of raw materials

CHASSIS: the frame or body of an automobile

ERGONOMICS: the science of designing tools to fit the human body and the work it performs

LIGHTWEIGHTING: reducing an automobile's weight to increase fuel efficiency and handling



Draw a special feature that you think the F-150 truck should have.

Use the back of this page!



CREATIVE THINKING & PROBLEM SOLVING

Ford is always working to develop new, more efficient processes to build its vehicles. What suggestions do you have to make the F-150 better (product) or to produce more trucks (process)?



TEAM UP & TALK

1. Watch the film in Station 1, Legacy Theater, and find out:

What inspired Henry Ford to create the assembly line?

How did workers assemble cars before the moving assembly line?

2. Watch the film in Station 2, Manufacturing Innovation Theater. Write down some steps involved in the production of a car, from customer research to concept to finished automobile.

3. The Ford F-150 truck has a body made from aluminum while most cars are built with steel. What do you think are some advantages of creating an automobile out of aluminum instead of steel?

4. Explore modern truck production in Station 4, Final Assembly Plant. Observe and find out: How does the factory look different from the old Rouge Factory seen in the film?

What jobs are robots doing?

What jobs are people doing?

CHAPERONE TIP SHEET

The Henry Ford's History Hunters have been especially aligned to reinforce 21st-century skills, such as creativity and innovation, critical thinking and problem solving, and communication and collaboration. Use this tip sheet to engage students in the learning process.

Please remember that the person who does the work does the learning. Use an asking vs. telling approach.



Here are some questions to ask the students as you visit the Ford Rouge Factory Tour.

Upon entering Station 4, Final Assembly Plant:

- How do the workers on the assembly line get the parts they need to install in the vehicle?
- Ergonomics is the science of fitting the job and the work environment to the worker. Can you find examples of how the Dearborn Truck Plant is designed to help maintain the health, safety and comfort of its workers?

At the Final Assembly Overlook:

- If the assembly line is so precise, why do you think workers have to check the trucks before they are sent out to be sold?

If the students are having trouble finding the Must-See items, you can guide them to these areas.

- **Test Drive Smart Tools:** a hands-on activity located near the end of the Station 4 walkway area in the Final Assembly Plant.
- **Windshield Install Area:** in the Final Assembly Plant near the first viewing platform.