



## 2018 Future Fayette Workforce Teacher in the Workplace Program

### LESSON PLAN

**Lesson Plan Title:** Exploring Careers in the Manufacturing Industry

**General Information:**

**Author:** Laurie Morris

**Email:** lmorris@basd.org

**Subject(s):** School to Career

**Topic:** Manufacturing in Fayette County

**Grade-Level(s):** 9-12

**Partner Company:** Heartland Fabrications in Brownsville, PA

**Summary:** This lesson provides students the opportunity to explore careers in the manufacturing industry. Emphasis is on the researching of manufacturing opportunities within Fayette County. A local manufacturing representative will meet with students to share knowledge of various opportunities in manufacturing and the essential skills needed on the workforce. Students will gain insight into the education and training requirements necessary to pursue careers in the manufacturing industry and an understanding of the hiring process.

**Resources:**

- Manufacturing video's #1-6 (Courtesy of PA Career Gates)
- Guest Speaker—Human Resource Representative from Heartland Fabrications, Brownsville, PA
- Use of computers, Internet, In class technology resource, Whiteboard
- Handouts: Essential Workplace Skills, Scavenger Hunt on Manufacturing Careers in Fayette County, Career Plan
- Presentation rubric
- Websites:
  - <https://www.mynextmove.org/find/browse?c=31>
  - <https://www.boeing.com/careers/career-areas/manufacturing.page>
  - <http://www.geromemfg.com/>
  - <https://matthey.com/>
  - <https://www.hl-fabrication.com/>
  - <https://www.pacareerlink.pa.gov/jponline/JobSeeker/SearchJobs>

## **Alignment to PA Standards for Career Education and Work:**

- 13.1.8.G Create an individualized career plan including, such as, but not limited to: Assessment and continued development of career portfolio, Career goals, Cluster/pathway opportunities, Individual interests and abilities, Training/education requirements and financing.
- 13.2.8.E Explain, in the career acquisition process, the importance of the essential workplace skills/knowledge, such as, but not limited to: Commitment, Communication, Dependability, Health/safety, Laws and regulations, Personal initiative, Self-advocacy, Scheduling/time management, Team building, Technical literacy, Technology.
- 13.1.11.A Relate careers to individual interests, abilities, and aptitudes.
- 13.1.11.B Analyze career options based on personal interests, abilities, aptitudes, achievements and goals.
- 13.1.1.D Evaluate school-based opportunities for career awareness/preparation, such as, but not limited to: Career days, Career portfolio, Community service, Cooperative education, Graduation/senior project, Internship, Job shadowing, Part-time employment, Registered apprenticeship, and School-based enterprise.
- 13.1.11.F Analyze the relationship between career choices and career preparation opportunities, such as, but not limited to: Associate degree, Baccalaureate degree, Certificate/licensure, Entrepreneurship, Immediate part/fulltime employment, Industry training, Military training, Professional degree, Registered apprenticeship, Tech prep, Vocational rehabilitation centers.
- 13.2.11.B Apply research skills in searching for a job. Career Links, Internet, Networking, Newspapers, Professional associations, Resource books (OOH).

### **Desired Results:**

#### Established Goals:

- Students will identify various manufacturing career opportunities within their community.
- Students will describe essential workplace and hiring skills in landing a position in manufacturing.

#### Overarching Understandings:

- Students will gain an understanding of the manufacturing industry and career opportunities within Fayette County.
- Students will gain an understanding of the relevant workplace skills, education, and training needed to be successful.

#### Essential Question(s):

- What is manufacturing?
- What are the different types of careers in the manufacturing industry? In Fayette County?
- What are the skills needed to pursue a career in manufacturing?
- What education and training is required for careers in the manufacturing industry?
- How can I prepare for a career in the manufacturing industry?

### Knowledge:

- Students will gain knowledge of the different career opportunities in manufacturing and in Fayette County.
- Students will gain knowledge of benefits offered in various manufacturing careers.
- Students will gain knowledge of required skills, education, and training in manufacturing.
- Students will gain knowledge of expectations of job applicants in the hiring process and on the workforce.

### Skills:

- Students will apply technology skills in exploring manufacturing career options.
- Students will apply research skills in the investigating of manufacturing careers and employment requirements (including Fayette County).
- Students will describe the soft skills needed as a job applicant and on the workforce.
- Students will demonstrate effective communication skills in a class presentation.

### **Assessment Evidence:**

#### Performance Task:

- Students will individually present their information sheet on a career of interest in manufacturing using an in class technology resource. Use of presentation rubric.
- Students will demonstrate an understanding of the manufacturing industry, career opportunities, and employment requirements and expectations through class discussions with the Human Resource Representative from Heartland Fabrications in Brownsville, PA.

#### Other Evidence:

- Students will assess themselves on the essential workplace skills and analyze what classes or activities could help them develop those skills (e.g., science, technology, engineering, and math skills; community service; career fairs).
- Students will respond to and reflect on the essential questions.
- Students will participate in an online Scavenger Hunt to find information on the following manufacturing careers in Fayette County (e.g., Boeing, Gerome Manufacturing, Johnson Matthey, and Heartland Fabrications; PA CareerLink of Fayette County will be utilized in order to job search for manufacturing careers).
- Student will develop a career plan detailing career goal, requirements, current skills, and plans to reach their career goal in the manufacturing industry.

### **Lesson Outline/Activities (1-7 days):**

#### Launch: Day 1

1. Introduce the lesson on Manufacturing in Fayette County with a question on “what is manufacturing?” Allow students to respond and list answers on the whiteboard.
2. Play the manufacturing video’s #1-6 (Courtesy of PA Career Gates) in order to provide students an understanding of the manufacturing industry.
3. Review by asking students to identify, in an in class discussion, the different types of careers in the manufacturing industry and what skills, training, and/or education is required.

### Explore: Day 2

1. Students will complete an assessment worksheet on the Essential Workplace Skills in manufacturing.
2. Once students complete their assessment, they will go to the computer and access the website (<https://www.mynextmove.org/find/browse?c=31>) for a list of manufacturing careers.
3. Students will read about the different types of manufacturing careers, including the education and workplace requirements.
4. Teacher will provide a sign-up sheet for students to indicate their manufacturing career of interest.
5. Students will print their manufacturing career information sheet and prepare to present for the next class.
6. Students will be provided a presentation rubric to review on how they will be graded.

### Explore: Day 3

1. Students will present on their manufacturing career of interest. With the use of in class technology, whiteboard, and their manufacturing information sheet, students will communicate the essential skills and educational requirements of their chosen manufacturing career.

### Explore: Day 4

1. Students will complete a Scavenger Hunt worksheet exploring manufacturing career opportunities in Fayette County.
2. With the use of computers and the Internet, students will access the websites:
  - <https://www.boeing.com/careers/career-areas/manufacturing.page>
  - <http://www.geromemfg.com/>
  - <https://matthey.com/>
  - <https://www.hl-fabrication.com/>
  - <https://www.pacareerlink.pa.gov/jponline/JobSeeker/SearchJobs>
3. Students will search each website link to find and analyze the manufacturing career and job hiring information/requirements.

### Explore: Day 5

1. Human Resource Representative from Heartland Fabrications in Brownsville, PA will provide students the opportunity to ask questions regarding the local manufacturing career options, qualifications, salary and benefits, and the hiring process.

### Explore: Day 6

1. Students will complete a Career Plan designed around a career in manufacturing in Fayette County. The in class assignment will be typed and include a career goal statement, manufacturing career requirements, current personal skills, and plans to reaching one's career goal.

### Summarize: Day 7

1. Teacher will refer back to the essential questions in review of the lesson on exploring careers in manufacturing and in Fayette County.
2. Students will reflect on their understanding of the different types of manufacturing careers and opportunities, and how to prepare for a future career in manufacturing.

