



High-Performance Manufacturing

Production Technician



Skills for Success

Section 1.3

Zero in on the training and education programs that will lead you to your goals.

MSSC

Production Skill Standards

These standards cover the six concentrations within manufacturing.

Skill standards describe the knowledge, skills, and performance needed for success in the workplace



1. Health-Safety and Environmental Assurance
2. Quality Assurance
3. Production
4. Manufacturing Process Development
5. Maintenance-Installation And Repair
6. Logistics and Inventory Control



MSSC CERTIFICATION

- **Certification is a process of demonstrating that you are qualified to work in a certain field, because you have fulfilled the requirements of that field.**



MSSC

CERTIFICATION

MSSC Certification is designed to....

- Prepare you for the real demands of the workplace.**
- Give you a portable skill credential.**
- Prepare you for the challenges of the high-performance manufacturing workplace.**



Apply It!

Pg. 41

- **Category: Math & Science**
 - Calculating Environmental Impact
- **Process:**
 - Group 3-4
- **Time: :05**
- **Task:**
 - Read Math and Science
 - Assist each other and answer question.



make decisions

communicate


lead others

**apply math and
science skills**

solve problems

work in teams

gather information



Education & Training

Your responsibility

- **Investigate program and institution.**
- **Make sure the program is accredited (officially recognized)**
- **Make sure institution utilizes the latest technology.**
- **Understand employment rates and salary levels.**



Opportunities

- **High School –**
 - **Solid foundation**
 - **Reading, writing, listening, and speaking; as well as math and science skills.**
- **Apprenticeship –**
 - **Training program that combines classroom and actual work under an experienced skilled worker.**
- **Career and Technical Schools**
 - **1-3 year programs, normally provide some sort of certification.**



Opportunities

Continued-

- **Community and Technical Colleges**
 - Programs that are normally 2 year or less.
 - Certificate programs and Associate degree programs
- **Colleges and Universities**
 - 2-4 year degree programs
 - Bachelor, Master and Doctorate Degrees
- **Armed Forces**
 - OJT, Classroom, Tuition assistance. Many other opportunities.



Apply It!

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- **Category: Problem Solving**
 - Analyzing and Solving Problems
- **Process:**
 - Group 3-5
- **Time: :05**
- **Task:**
 - Read PS pg. 44
 - Discuss as group “apply it”.
 - Classroom discussion

Knowledge Check!

Pg. 45

- **Category:**
 - Review
- **Process :**
 - Individual
- **Time: :08**



Knowledge Check!

Pg. 45



Questions:

- How can MSSC certification help you succeed in your career?
- List three categories of occupational and technical skills needed?
- Identify two ways to prepare for a career in H-P Manufacturing?
- Describe three types of programs that provide education and training for a career in H-P Manufacturing?



Review It!

Pg. 46

- **Chapter:**
 - **1**
- **Sections:**
 - **1.1, 1.2, 1.3**
- **Individual:**
 - Time: :00**
- **Task:**
 - **Answer “Review Questions” and/or “Test Prep”**
 - **Classroom Discussion**

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- Economic Impact
- Technological Impact
- The Evolution of Manufacturing
- Rising Customer Expectations
- Expansion of the Global Economy
- Regulations & Standards



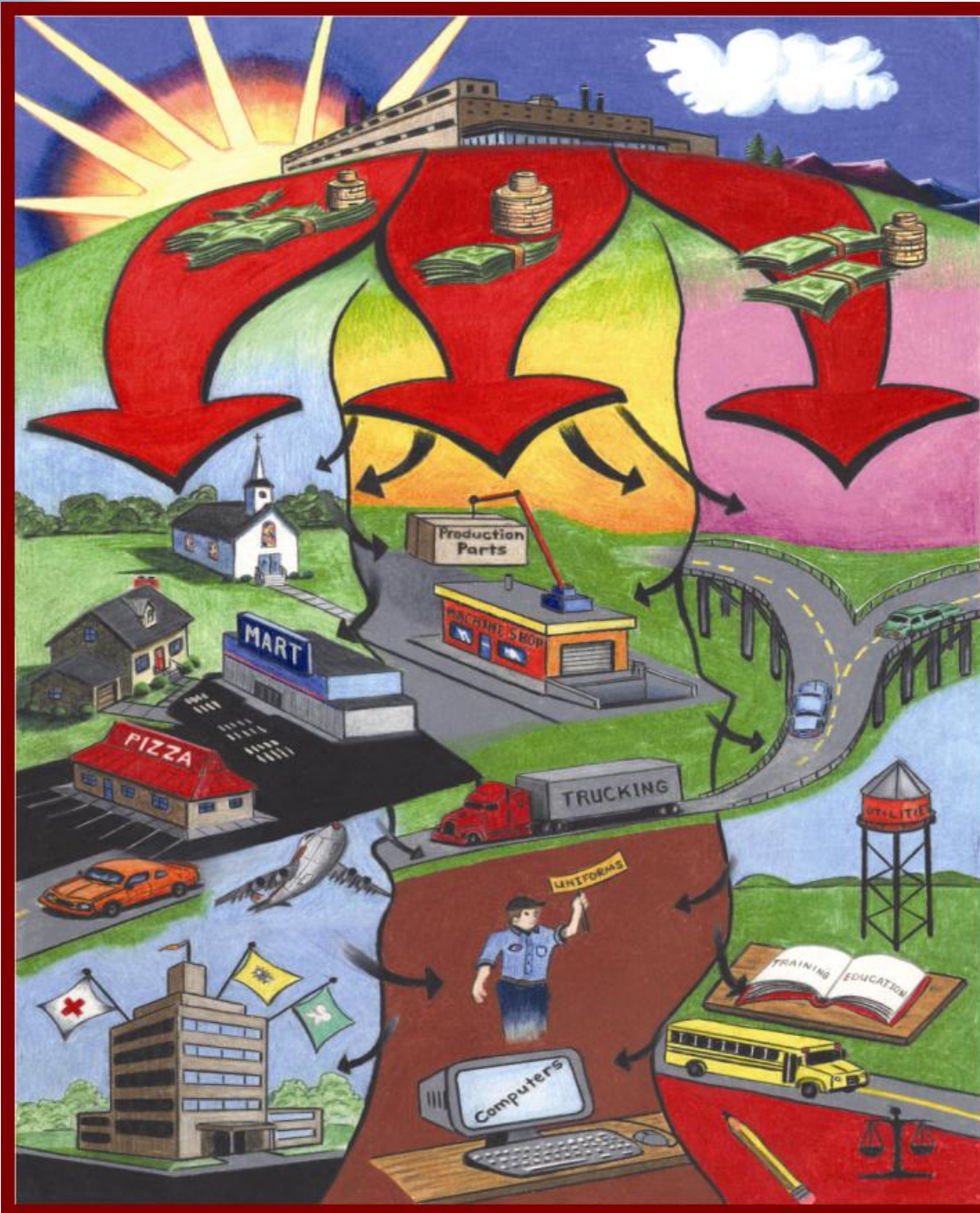
The Impact of Manufacturing: Section 2.1

- **Manufacturing directly impacts the U.S. economy.**
- **14 million people work within mfg.**
- **25% of all goods and services produced within the United States are a result of mfg.**
- **Mfg. has the highest productivity rates in the country**
 - **Productivity** is the measure of how efficiently goods are produced

Get Up!

- **Subject:**
 - **Community Impact**
- **Process:**
 - **Group of 3-5**
- **Time: :10**
- **Task:**
 - Study the PLAY.map and identify all the economic impact points by a typical business
 - Class Discussion





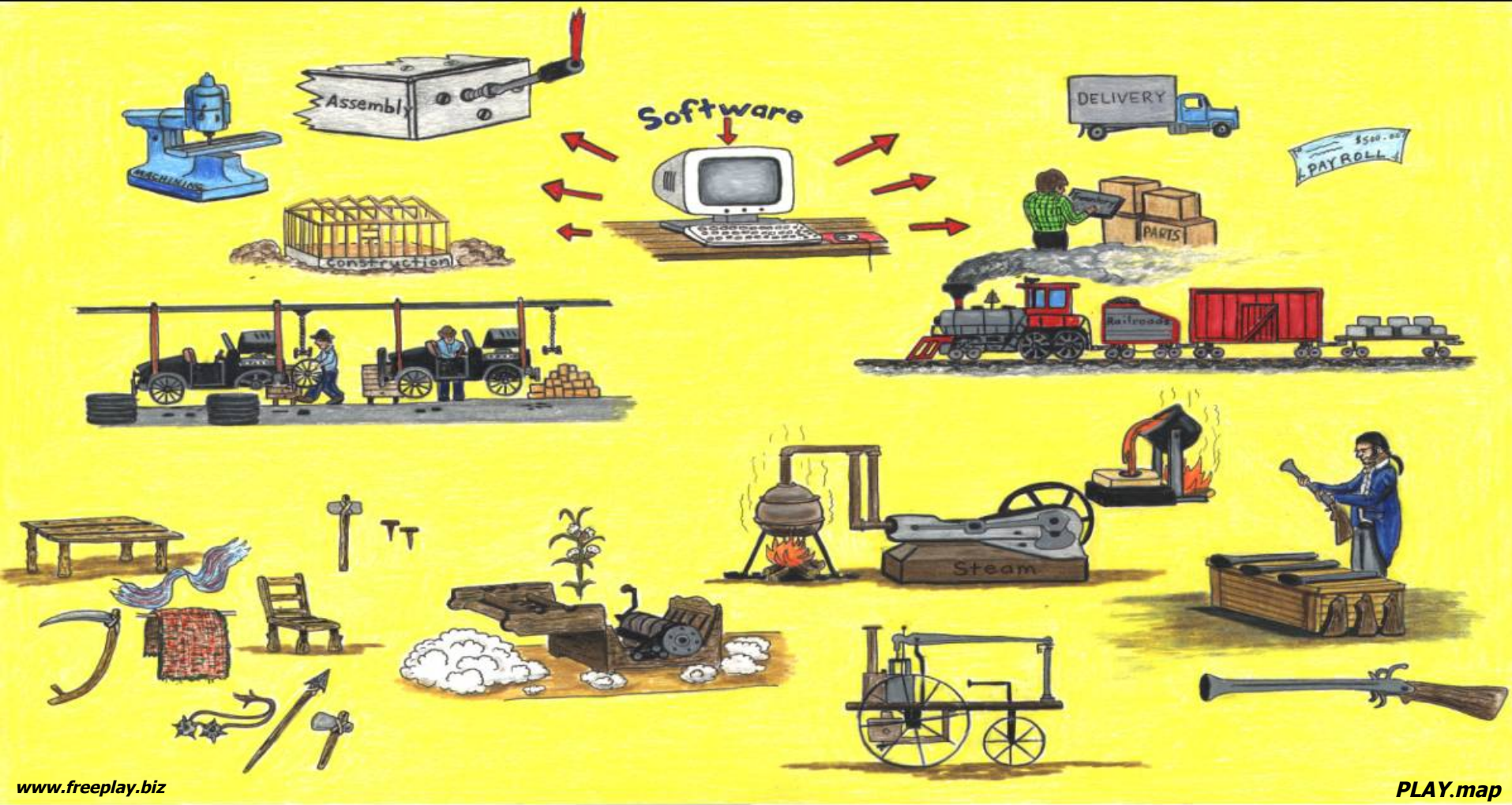
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Get Up!

- **Subject:**
 - Manufacturing Evolution
- **Process:**
 - Group of 3-5
- **Time: :15**
- **Task:**
 - Study the PLAY.map and identify all the technology advances that triggered major changes within mfg.
 - Class Discussion



The Impact of Manufacturing:

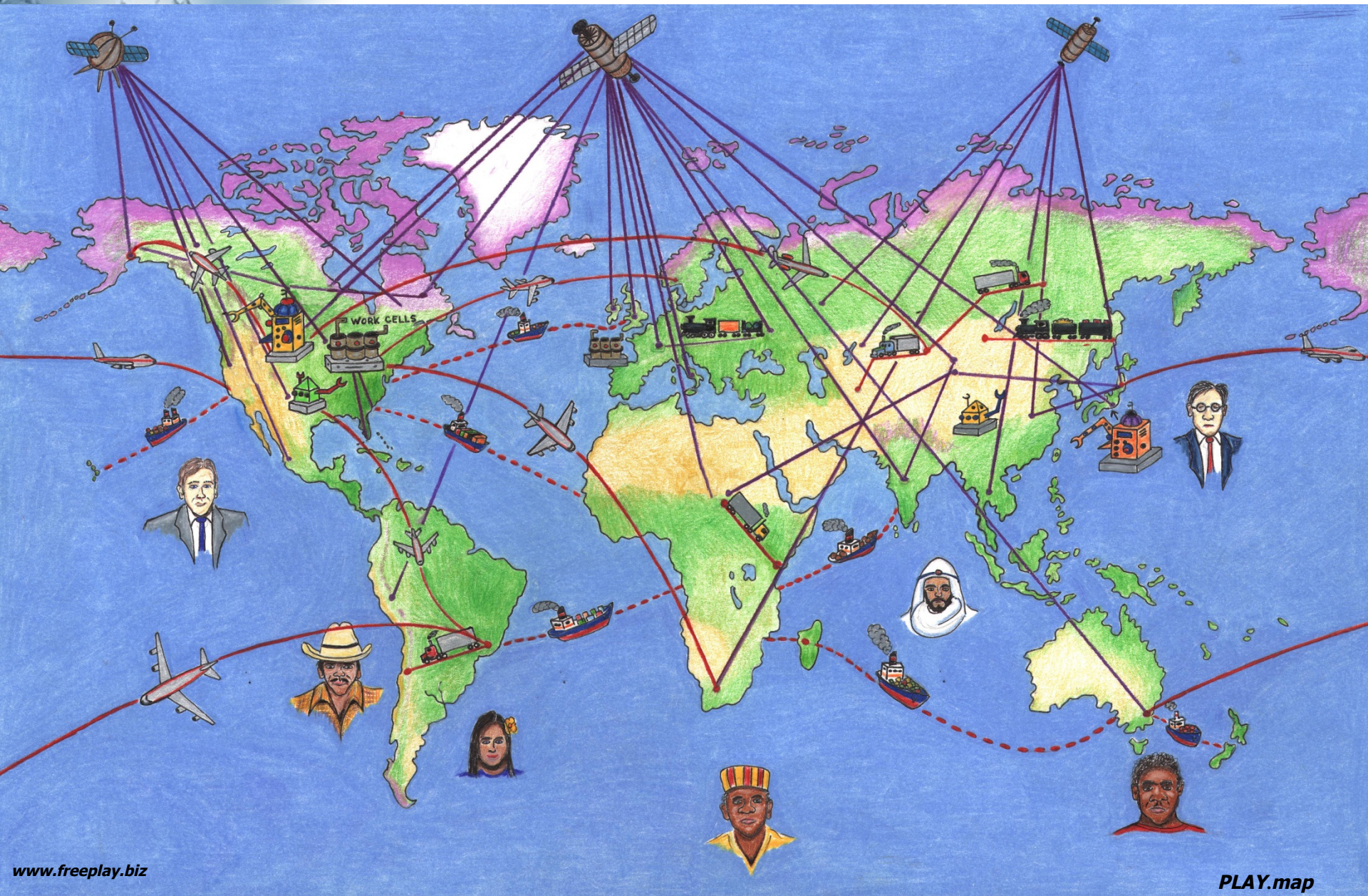


The Impact of Manufacturing:



The Impact of Manufacturing:





www.freeplay.biz

PLAY.map

The Expansion of the Global Economy



Regulations and Standards:

Health and Safety Practices

OSHA -Occupational Safety & Health Act

NIOSH -

Environmental Practices

EPA –Environmental Protection Agency

ISO –International Standards Organization

Protecting Worker Rights

Federal Labor Laws

State Labor Laws

Collective Bargaining

Note: When Federal and State regulations cover the same topic; an employer must follow the stronger of the two

Knowledge Check!

Pg. 55

- **Category:**
 - Review
- **Process :**
 - Individual
- **Time: :05**




Knowledge Check!

Pg. 55



Questions:

- How does manufacturing's high productivity rate benefit the economy?
- How did introduction of continuous process and interchangeable parts advance manufacturing?
- Explain how customization can help meet customer needs.
- How has globalization led to more competition?
- How has environmental concerns changed the way manufacturers make products?



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