



## Educator Resources

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Thank you for visiting the MFG Days digital career exploration platform. We update these resources annually and work year-round to create opportunities for meaningful connections between employers, educators and students of all ages. The South Bend Regional and Greater Niles Chambers are committed to supporting educators as you develop career exploration and coaching programs, build work-based learning options, and expand your own knowledge of manufacturing careers.

### Introduce Students to Manufacturing Through Research Projects

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- **Research the history** of manufacturing from the Industrial Revolution to Industry 4.0.
- **Research a job** you learned about and discuss the education, training, and related **career pathways**
  - Are there “non-technical” careers essential to the manufacturing industry?
- **Research and report** on the different types of manufacturing (Metals, Plastics, Agriculture, etc.)
  - Wages
  - What “green jobs” are emerging in manufacturing?
  - Material – pros/cons
  - How do you use them in your life?
- **Science/Research & Development**
  - Patents in manufacturing
  - Biomedicine
  - Pharmaceuticals
- **Safety in Manufacturing**
  - Evolution of OSHA
  - How have modern regulations changed manufacturing safety?
- **Technology** and Manufacturing
  - Where are the largest tech companies’ manufacturing facilities?
  - What steps are taken to ensure zero contaminants?
  - How is 3D printing impacting manufacturing?
- **Robotics**
  - How are they changing manufacturing?
  - Evolution of careers from basic assembly to highly skilled – current and projected impact
  - Industry 4.0 – what is it?
- **Supply Chain & Logistics**
  - How did COVID-19 impact supply chains and what changes are being made as a result?
- Learn about the different **Trade Agreements** – NAFTA, Trans-Pacific Partnership, CAFTA-DR, etc.
- What is “offshoring” and “reshoring”? Discuss pros and cons of each.
- Discuss the different manufacturers you were introduced to, which ones interested you? Why?
- What have you learned from exploring MFG Days resources?

## Websites to Learn More

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American Iron & Steel Institute: [steel.org](http://steel.org)  
Association for Supply Chain Management: [ascm.org](http://ascm.org)  
Creators Wanted: [creatorswanted.org](http://creatorswanted.org)  
Fabricators & Manufacturers Association: [fmamfg.org](http://fmamfg.org)  
Industry Week: [industryweek.com](http://industryweek.com)  
National Association of Manufacturers: [nam.org](http://nam.org)  
Plastics Industry Association: [plasticsindustry.org](http://plasticsindustry.org)  
Precision Metal Forming Association: [pma.org/indiana/](http://pma.org/indiana/)  
Society of Manufacturing Engineers (SME): [sme.org](http://sme.org)  
South Bend Regional Chamber: [sbrchamber.com/pages/mfgdays](http://sbrchamber.com/pages/mfgdays)  
The Manufacturing Institute: [themanufacturinginstitute.org/students/](http://themanufacturinginstitute.org/students/)  
U.S. Department of Energy: [energy.gov/manufacturing](http://energy.gov/manufacturing)  
Veryable: [veryableops.com](http://veryableops.com)  
Women in Manufacturing: [womeninmanufacturing.org](http://womeninmanufacturing.org)

## Quick Career Insights from Young Professionals

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**Creators Wanted;** <https://creatorswanted.org/stories/>; 30-second videos highlighting young professionals – from Bianca, a process engineer at Pfizer and Jared, a senior engineer at Toyota to Belin, manager of train operations at Union Pacific and Katie, quality and safety specialist at Coca-Cola – and many other careers and employers.

Check out **MFG Days Career Chats** to hear from employees of all ages working for manufacturers in the South Bend region: [sbrchamber.com/pages/mfgchats/](http://sbrchamber.com/pages/mfgchats/). Contact [klee@sbrchamber](mailto:klee@sbrchamber) if you're interested in setting up a virtual or live career chat for your students.

## Class Project Ideas

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- Create a map of the top manufacturing regions in the world by product, total shipments, etc.
- Partner with a local manufacturer to develop materials for attracting recent graduates.
- Develop a fun interactive game to introduce K – 4 students to manufacturing.
- Survey your peers about their manufacturing knowledge. Based on survey results, do you have recommendations on how to help introduce students to manufacturing?
- Find five 'cool' facts about manufacturing and create a campaign to inform K12 students.
- Explore innovative ways to make plastic recycling economically viable, how could this be helpful in developing nations?

## Educator Learning Opportunities

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- Sign up for the South Bend Regional Chamber's industry connectED educator newsletter by emailing [klee@sbrchamber.com](mailto:klee@sbrchamber.com) and receive information on Educator Externships, Industry Deep Dives, student career exploration programs, and more.
- Check out the [MFG Days Educator Toolkit](#) – a Google folder where you can find **and share** great ideas, lesson plans, and additional resources to support your students in exploring careers. **New additions created by 2024 Educator Externs include B&B Molders, ITAMCO and the ND Turbomachinery Lab.**