



# DISCOVER MANUFACTURING WEEK EDUCATOR TOOLKIT

NOVEMBER 7-11, 2022



West  
MICHIGAN  
**WORKS!**



## ABOUT DISCOVER MANUFACTURING

Discover Manufacturing is a collaborative of manufacturers, educators, workforce development, and economic development organizations who are committed to addressing the short- and long-term talent needs of West Michigan’s manufacturing industry. Discover Manufacturing’s key roles in West Michigan are:

- Share trends and best practices affecting talent in manufacturing
- Lead, support and promote talent initiatives throughout West Michigan
- Understand manufacturers’ current education and training needs to inform curriculum and adequate enrollment.
- Promote networking among manufacturers, educators, workforce development and economic development organizations

## ABOUT DISCOVER MANUFACTURING WEEK

Discover Manufacturing Week is part of national MFG Day efforts, led by the National Association of Manufacturers. The initiative seeks to address common misperceptions about manufacturing by providing opportunities for students, teachers, and the public to tour manufacturing facilities and talk to professionals about their careers. In West Michigan, Discover Manufacturing Week is officially the second week of November, but it includes all events scheduled during the months of October and November.

Discover Manufacturing has built a team of core “champions” from each county with at least one economic development partner, one educational partner, one manufacturer, and one West Michigan Works! business solutions representative. Each team will be responsible for supporting the Discover Manufacturing Week efforts in their respective county. Educator champions can help guide you through registration on the Discover Manufacturing website.

### Educator Champions by county

<b>Allegan</b>	Rich Okoniewski – AAESA rokoniewski@alleganaesa.org	<b>Mecosta</b>	Kelly Wawsczyk – <i>The Right Place</i> wawsczykk@rightplace.org
<b>Barry</b>	Nichole Lyke – <i>Barry County Chamber</i> nicole@mibarry.com	<b>Montcalm</b>	Penny Dora – <i>MAISD</i> pdora@maisd.com
<b>Kent</b>	Michelle Large – <i>KISD</i> michellelarge@kentisd.org	<b>Muskegon</b>	Sasamon Parker – <i>MACTC</i> sparker@muskegonisd.org
<b>Ionia</b>	Ashli Jordan – <i>ISD</i> ajordan@ioniaisd.org	<b>Ottawa</b>	Shayna Carlson – <i>OAISD-CT</i> scarlson@oaisd.org

## SCHEDULING A MANUFACTURING WEEK EVENT

Scheduling a Discover Manufacturing Week event is easy. Simply go to the [Discover Manufacturing website](#), click the red “Student Registration” button to register.

## PREPARING FOR DISCOVER MANUFACTURING WEEK 2022

Manufacturers in West Michigan are working hard to provide students with an interactive experience. No matter where your students are in their path towards a career, these events will provide an excellent opportunity to begin or deepen their career exploration. Our hope is that the information included in this packet will help you and your students have a meaningful and enjoyable experience.

Discover Manufacturing Week 2022 will hold in-person tours. This year’s program is outlined below:

### 2022 Program Structure

Discover Manufacturing Week is geared towards for students in the 6th – 12th grade.

In-Person Tours (November 7-November 11, 2022)

- Manufacturers host groups of students.
- Students tour the facility for approximately one to two hours.
- Manufacturers identify if they are willing to assist with school transportation costs.
- COVID-19 safety protocols observed.
- Your local educator champion will coordinate the pairing of schools and manufacturers.



INSPIRE THE NEXT  
GENERATION OF  
MANUFACTURERS.



# PREPARING FOR YOUR TOUR

## BEFORE THE TOUR

### Behavior

This is an incredible opportunity for students to interact and see first-hand what goes on inside a manufacturing facility. Manufacturers have graciously opened their workplaces to students, students should display professional behavior and represent their school in a professional manner.

### Dress code

Please no hats or t-shirts with objectionable logos/graphics. Closed toed shoes are highly recommended. Prior to the tour, please confirm dress requirements including any COVID-19 protocol with your educator champion.

### Other preparations

- Connect with your ISD and educator champion.
- Follow your school's timeline and required protocols for arranging field trips.
- Record your district's transportation dispatch phone number in case of transportation issues.
- Plan on an appropriate number of chaperones for the event.
- Connect with the manufacturing company:
  - Communicate any specific concepts, curriculum, or STEM topics that you would like highlighted or addressed during the tour.
  - Discuss arrival times, departure times, point of contact cell phone (if available) and mode of transportation.
  - Confirm any special instructions for bus parking.
  - Share any student allergies.
  - Inquire about dress code, identification, behavior codes, and photo policies for the tour. Require students to wear closed-toe shoes.
- Review expectations for student behavior and provide an overview of the event for students.
- Prepare students for the upcoming tour by reviewing suggested activities on the next page.
- Encourage the students to brainstorm meaningful questions on their own. A list of suggested questions on the next page.

## PREPARING STUDENTS SUGGESTED ACTIVITIES

### “Why are we participating in this Manufacturing Week event?”

Have a discussion about why exploration activities like Discover Manufacturing Week 2022 are important to their career development process. Emphasize that for most people, career development is an on-going process throughout their lives and not a one-time event. Introduce them to the LEAP career planning process. See page 7 for LEAP handout.

### “I know I don't want to work in manufacturing, so why should I care?”

Speak to your students about the ways the local community and economy are benefited by the manufacturing industry. Manufacturers contribute greatly to Michigan's economy. In 2017, Michigan manufacturers exported more than \$56.77 billion in manufactured goods. Manufacturers employ more than 635,700 workers in Michigan. The average wage and benefits in manufacturing are 26.9% higher than the average of all industries. Manufacturing influences employment opportunities in other sectors, with four spin off jobs created for every one manufacturing job. Find more information about the manufacturing industry's impact in Michigan here:

<https://mimfg.org/About/Michigan-Manufacturing>

### “What can I talk about with employers?”

Whether or not they are currently interested in a career within manufacturing, urge students to keep an open mind and use the time to talk to employers about how/why they chose their career paths. Have students brainstorm questions they could ask employers at the event and encourage them to move beyond salary.

Sample list of meaningful questions to ask Manufacturers:

1. When did you decide to pursue a career in this field?
2. What other jobs did you consider before deciding on this one?
3. What skills and education are required for your current position?
4. What do you like most about your job?
5. What do you like least about your job?
6. What is a typical day like? What are your hours/days of work?
7. What personal qualities or abilities are important to being successful in this job?
8. Do you work alone or on a team most often?
9. What can cause stress in this job?
10. What is your perception of the job outlook for this career field?
11. What are some of the surprises you have had in this job?
12. Were you employed in another profession before coming into this position? If so, why did you change professions?
13. What kind of training do companies like yours provide incoming employees? What skills are you expected to have learned beforehand?
14. What advice would you give to those considering this same career?

### “What companies will be featured?”

Provide students with information on the employer(s) involved in your Discover Manufacturing Week 2022 event. Have students generate some questions they would want to know about the company and/or provide examples. Tell students to investigate the company website in advance of the event. Assign groups to focus on different company characteristics:

- What is the focus of the business?
- What industries do they operate in?
- Is the company local or global in nature?
- Is the company privately or publicly held?
- What are some of open career positions the company is hiring for?
- What type of benefits does the company advertise?
- What type of positions does the company consider to be entry level roles?



AT THE TOUR

- Cell phone use is not permitted. Photographs are only by permission within any manufacturing facility. Ask first!
- If possible, exchange cell phone numbers with your bus driver.
- Encourage students to engage with the manufacturer by asking those meaningful questions previously brainstormed. Manufactures want to engage your students!
- Bring along a business card to share with the employer.
- Take pictures during the event, if permitted, and send to [jvansolkema@westmiworks.org](mailto:jvansolkema@westmiworks.org).

AFTER THE TOUR

Gratitude

Manufactures in West Michigan have spent many hours preparing for your students to visit! Please be sure to thank employers for their commitment so we can continue these partnerships for future students.

- Send a thank you note to manufacturers.
- Provide time for students to complete the event survey. This helps improve tours for future students and provides impactful feedback to manufacturers.
- Provide students time to complete the self-reflection worksheet.
- Encourage your senior students to apply for the Discover Manufacturing Week Scholarship (details on pages 8 & 9). Fill out an educator survey. Educators who complete the survey may win a \$50 gift card to Amazon.

“What did I learn?”

After the event, have students reflect on what they learned at your Discover Manufacturing Week 2022 tour. Have a discussion about some of the careers highlighted during the visit. Are there any surprising statistics? Which fields seem most interesting? Which careers are new to you? Encourage students to update or add information to their EDPs (Educational Development Plan) as appropriate. See Manufacturing Week 2022 Self-reflection on page 6.

DISCOVER MANUFACTURING WEEK 2022 SELF-REFLECTION

1. Describe three things you learned about the manufacturing industry that you didn’t know before:

2. What type of careers in manufacturing sound most interesting to you? Why?

3. What type of education or training do you need to get started in manufacturing?

4. Based on what you learned; what kinds of skills are needed to succeed in this industry? (e.g., math skills, public speaking, project management, etc.)

5. What are some of your next steps in career planning? (See the LEAP into Career Success handout for ideas)





### LEARN about yourself

Understand your interests, values, skills, motivation, and personality.

- What do I love to do?
- What is most important to me (your values)?
- What do I like to do in my free time?
- What skills and activities come naturally to me?
- What are my favorite/least favorite classes?

### EXPLORE your options

Understand the career, education, and employment opportunities available to you.

- What kinds of careers relate to my interests, values, and skills?
- What activities can help me learn more about careers that interest me?
- What education/training options are available for me?
- Who can help me get information about different careers?
- What trends in employment/the economy/industry should I be aware of?

### ASSESS your "fit"

Assess your options and find the best match between you and your opportunities at this point in time.

- What are the advantages and disadvantages of each option for me?
- What kind of lifestyle do I want in the future?
- What kind of education/training am I able or willing to pursue?

### PLAN your next steps

Set short and long-term goals. Identify the steps you need to take to reach your goals and record them on your Educational Development Plan (EDP).

- Which goals can I reach in the short-term (a year or less) and long-term (five years or less)?
- Which courses should I take to help me gain the proper skills, knowledge and training?
- What other kinds of experiences will help me move closer to my goals?
- Have I created, reviewed and/or updated my EDP to reflect my new learning and experiences?

## DISCOVER MANUFACTURING SCHOLARSHIP 20223

### Discover Manufacturing will award up to \$10,000.00 in total scholarships in 2023.

Discover Manufacturing has awarded over \$15,000 in scholarships since 2018 to exceptional students planning to use their skills and education to make the Advanced Manufacturing Industry a rewarding career.

**Multiple scholarships from \$500 to \$2,000 are to be awarded.**

1. For graduating high school seniors pursuing a degree in a manufacturing-related program.
2. For skilled trades technical training including continuing education for adults and apprentices.

Scholarships are renewable up to \$1,000 for prior recipients based on their completing an application and an interview by the selection committee. The essay requirement is waived for recipients seeking renewals. Scholarship is available for a maximum of 2 years.

Scholarships will be awarded based on interest expressed through the completion of an online application and a 500-word essay telling our selection committee "Why manufacturing is the right career path for me and how I plan to make a difference in a manufacturing environment." The essay should also answer "What experiences, related skills, or exposure to the manufacturing industry led you to pursue this industry?" Participation in events such as FIRST Robotics, mechanical manufacturing work experience, Manufacturing Week events or videos, MiCareer Quest or other real-life exposure to manufacturing would be preferred. The application will ask why funds are needed and how they will be utilized as part of our scoring criteria.

Criteria used in the awarding of these scholarships include:

1. Students residing in Kent, Ottawa, Allegan, Barry, Ionia, Montcalm, or Muskegon counties will receive additional points in scoring. Students from surrounding areas may be considered with a strong statement of connection to West Michigan or attending school in West Michigan.
2. All applicants must plan to attend a post-secondary educational institution in the state of Michigan to be eligible.
3. Essays will be reviewed by the selection committee and scored to identify finalists.
4. Finalists will be interviewed (either virtually or in person) by members of the scholarship selection committee prior to determining recipients.
5. Alternate non-monetary resources including mentorships, internships, training, and job shadowing opportunities may be offered to qualified individuals not ultimately selected for scholarship awards.
6. High school seniors selected must provide the selection committee with a copy of their college acceptance documentation prior to funds being released.
7. Skilled trade recipients must provide the selection committee with enrollment documentation or acceptance information within a qualified program prior to funds being released.
8. In the unlikely event that the above documentation paperwork cannot be provided, the offer of a scholarship may be withdrawn with an alternate recipient selected.

Applications are due by 5pm Friday, April 14, 2023. Scholarships will be awarded in person on May 3, 2023. Scholarship recipients and their spouses or parents/guardians will be invited to attend a reception where they will read their essay to Discover Manufacturing members and have an opportunity to interact with West Michigan manufacturers and educational partners.

An online application will be available at [www.discover-manufacturing.com](http://www.discover-manufacturing.com) beginning September 30, 2022 and will be promoted to students during Discover Manufacturing Week activities and provided to the intermediate



school districts within the seven identified counties. The scholarship will also be promoted to adults and apprentices throughout the Discover Manufacturing network including our manufacturing companies and community college system.

Scoring of Completed Application:

- 15 points: Essay spelling, grammar, and structure.
- 40 points: Answering both parts of the essay question communicating why manufacturing is the right career path for you and how you plan to make a difference within a manufacturing environment.
- 15 points: An explanation of the experience, related skills, or exposure to manufacturing you have.
- 15 points: A statement of why funds are needed and how they will be utilized.
- 15 points: Resides within the identified seven county region or strong statement of connection to West Michigan.

Funding is discretionary by the scholarship selection committee and may vary in award amounts based on number of qualified applicants and available funding.

Scores of 80% to 84%: up to \$1,000 award.

Scores of 85% to 89%: up to \$1,250 award.

Scores of 90% and above: eligible for maximum awards of \$1,500 to \$2,000.

## APPRENTICESHIPS

National Discover Manufacturing Week takes place one week prior to National Apprenticeship Week this year. National Apprenticeship Week will run November 14-20. Therefore, it’s an ideal time to share information with students about apprenticeships. An apprenticeship is an opportunity for students to learn and build skills in advanced manufacturing. We want to highlight apprenticeships as part of the work that we’re doing and give a brief overview of this program.

### What is an Apprenticeship?

While all apprenticeship programs look a little different in content and method of delivery, all apprenticeship programs share the same five basic components.

### Apprenticeships Are Jobs

When you begin an apprenticeship program, you are paid from the moment you start working.

### On-The-Job Learning

Every apprenticeship program provides on-the-job learning which teaches you the technical skills needed to be successful in your career.

### Mentorship Experience

All apprentices are provided a one-to-one mentorship experience. The mentor is there to help facilitate on-the-job learning and to provide advice and guidance.

## Classroom Training

Apprenticeships include classroom training. Classroom instruction is commonly held at community colleges but can also be held at the company facility or at a third-party training site. Some employers choose to pay for the apprentices’ classroom training, but not all. When the apprentice does pay for the classroom training, it is often at a much lower cost than traditional college tuition.

## Credentialing

Upon completion of an apprenticeship program, all apprentices are awarded a nationally recognized industry credential. This tells potential employers that the apprentice has the necessary skills and experience to excel in their given field.

## What are the Benefits to Completing an Apprenticeship Program?

1. **Earn while you learn.** An apprenticeship allows you to get relevant experience while you’re attending school and receive a paycheck. This can help you to avoid student debt and even accumulate wealth while you’re in school.
2. **Earn a nationally recognized, industry recognized, portable credential.** This means that if you change employers or relocate, your apprenticeship will be recognized by any employer in that industry in the entire United States.
3. **Apprenticeship is higher education.** The coursework you take not only improves your skills but can also count as credit towards an advanced degree. Also, coursework for most apprenticeships is either paid for or reimbursed by the employer, so incurring student debt is much less likely.
4. **Apprenticeship is a career path.** Many apprentices who complete their program go on to work long and successful careers in the positions they obtained from their apprenticeships, while some apprentices choose to advance their skills even further. Apprenticeship opportunities can be offered at multiple times in a given career pathway.
5. **Apprentices become valued employees.** By completing an apprenticeship, you become more valuable to the company you work for. The company has invested time and money into growing your skills and will reward this skill growth with increased pay, autonomy, and responsibilities.

## National Apprenticeship Week 2022

During National Apprenticeship Week 2022, the U.S. Department of Labor will highlight the following key themes:

- Monday, Nov. 14: Registered Apprenticeship in New and Emerging Industries
- Tuesday, Nov. 15: Pre-Apprenticeship and Youth Apprenticeship
- Wednesday, Nov. 16: Expanding Registered Apprenticeship to Underserved Populations
- Thursday, Nov. 17: Women in Apprenticeship
- Friday, Nov. 18: Public Service Apprenticeship and Veterans in Apprenticeship

## ADDITIONAL RESOURCES

[Discover Manufacturing YouTube Channel](#)

[MFG Day: Toolkit for Teachers](#)

[Comprehension Instructional Sequence Model \(CIS\) Lesson Plans](#)

Lesson plans focusing on different aspects/process of manufacturing

[FLATE \(Florida Advanced Technological Education Center\) Resources](#)

Pre/post tour activities

[Made in Florida Industry Based Educational Lesson Plans](#)

Lesson plans with hands-on activities (middle school and high school levels)

[STEM Learning YouTube Playlist](#)

Hands-on STEM related activities for 4-8th grade students created by GM employees

[Going PRO in Michigan](#)

See some of Michigan's most in-demand Professional Trades careers