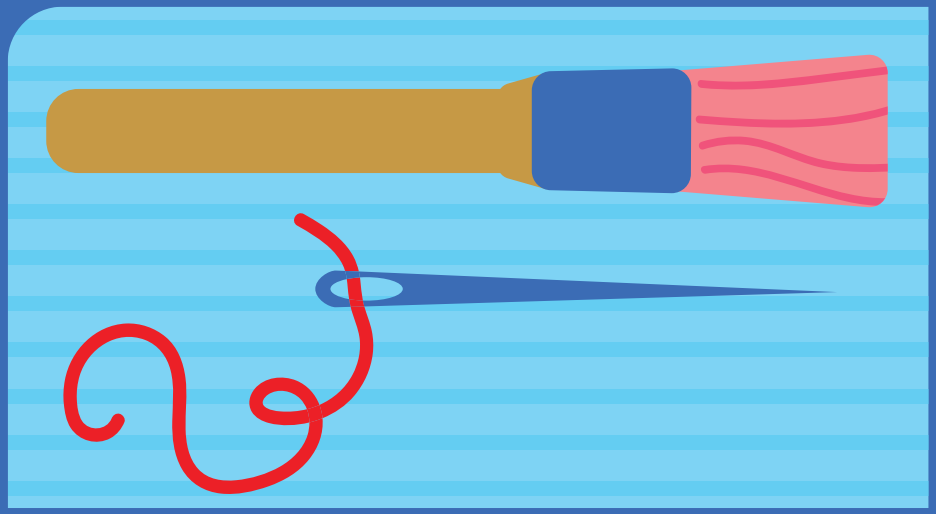
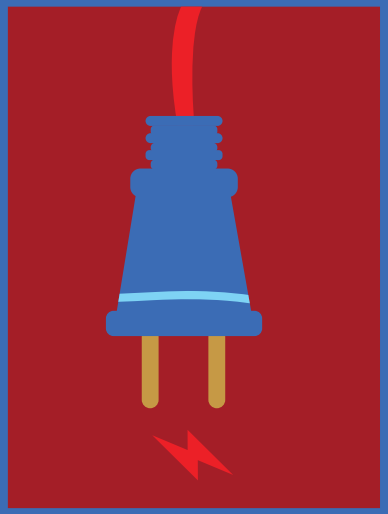
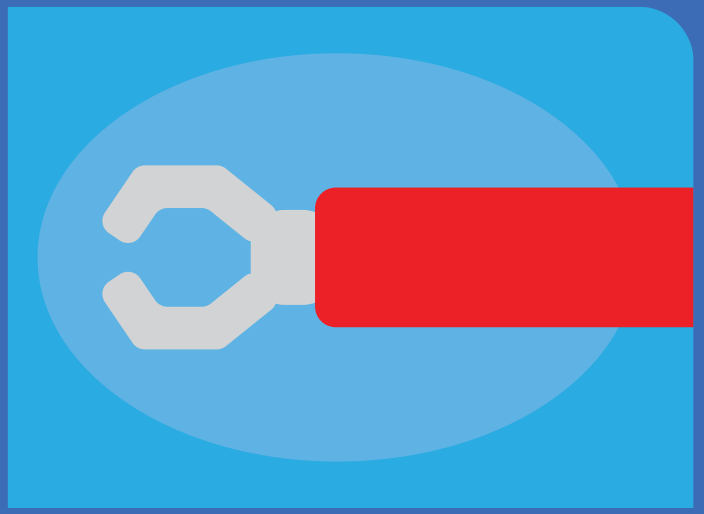
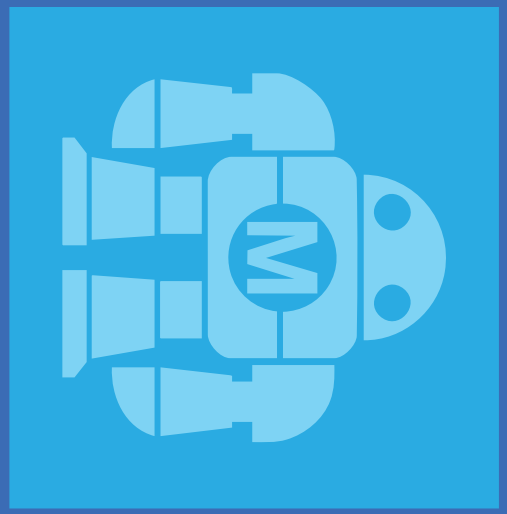
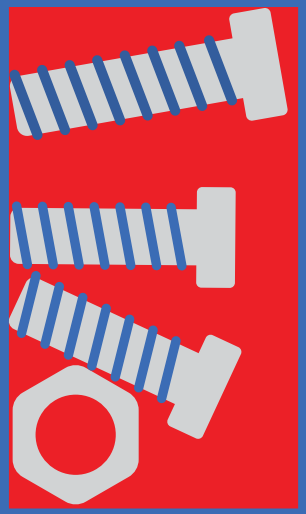
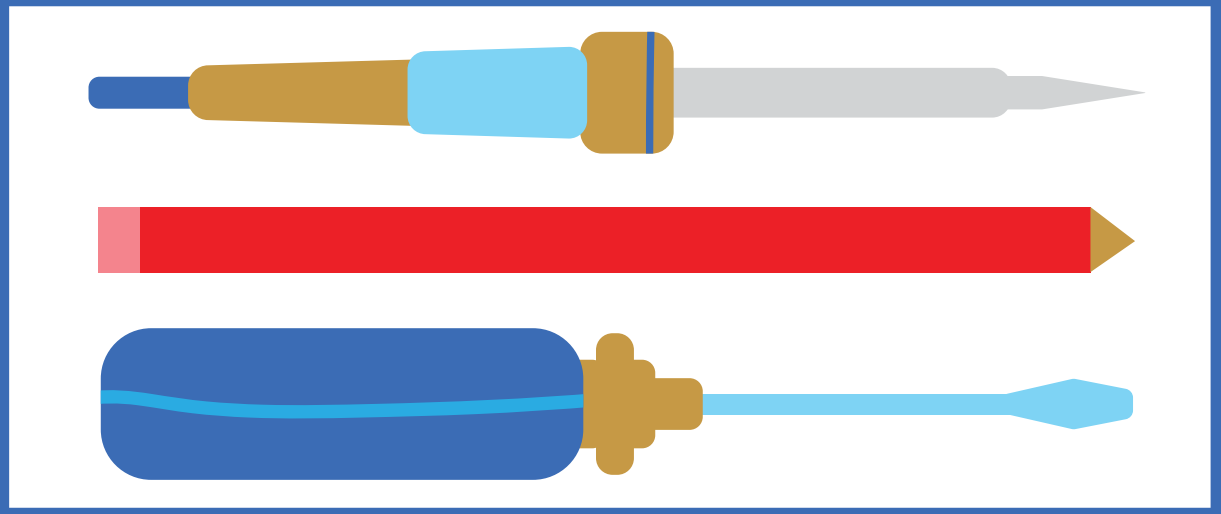

Educator's Guide

A tool box for your classroom

Maker Faire Orlando

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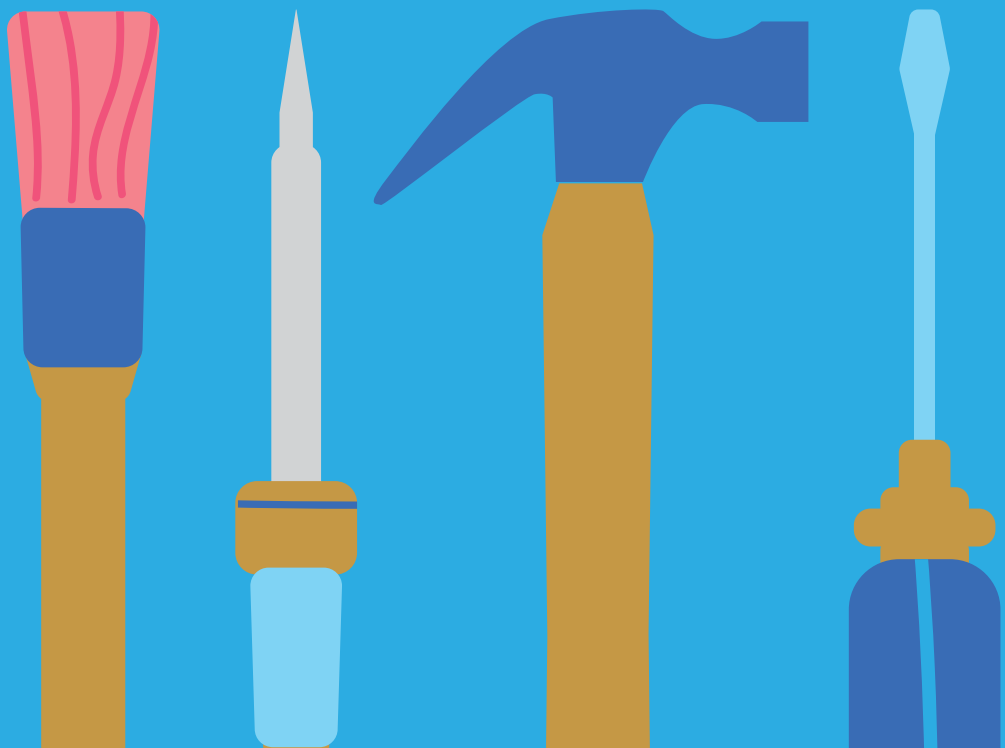
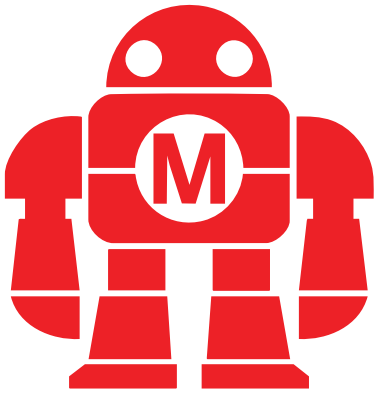


Hi there, I'm Makey, the Maker Faire mascot! Welcome to your Educator's Guide for Maker Faire Orlando's Field Trip Day!

Inside you will find pages filled with Maker Faire details to help you prepare for the big field trip. Additionally, we have provided creative classroom ideas to help prepare students, keep them engaged, and allow them to reflect on their Maker Faire Orlando (MFO) experiences.

Something awesome about makers is their love of sharing ideas! So, feel free to make copies of the prompts and projects inside this guide. Use them as worksheets for students or inspiration for a teacher down the hall!

See you at Maker Faire!



Feeling Social?

Maker Faire Orlando
makerfaireorlando
Maker Faire Orlando

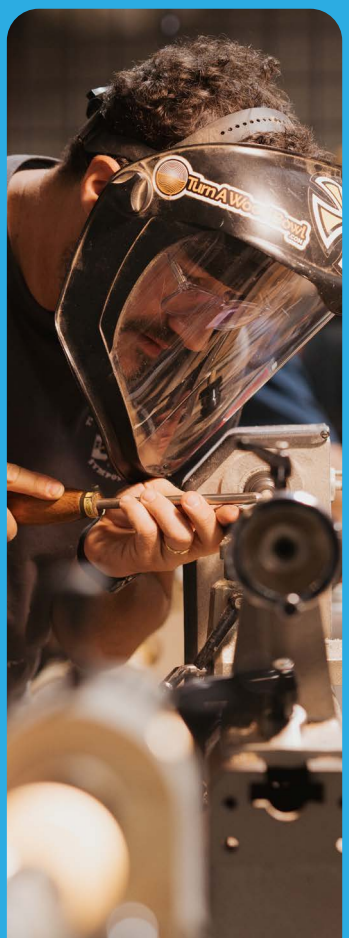
#mfo2025 #maker #makerfaire

An Introduction to Maker Faire

What is a "maker"?

Great question! It's anyone who makes or produces something. At Maker Faire, makers are also typically associated with one or more elements of S.T.E.A.M. (Science, Technology, Engineering, Art, and Mathematics).

Makers are parents, students, scientists, and garage tinkerers. They are young and old and share a love for innovation, creativity and inspiring others to make something—anything—as long as it makes people happy.





What are some highlights at Maker Faire?

3D Printing	Music	Photography	CosPlay	Screen printing
Robotics & Battling Robots	Crafts	Power Racing	Circuitry	Game Making
Knitting & Crocheting	Engineering	Sculpture & Painting	Mechanics	Fabrication

Maker Faire® Orlando

What is Maker Faire?

Maker Faire originated in 2006 in the San Francisco Bay Area as a project of the editors of Make: Magazine. It has since grown into a significant worldwide network of both flagship and independently-produced events. Read more on Maker Faire history, the Maker Movement, as well as how to start a Maker Faire or a School Maker Faire where you live at MakerFaire.com.

Maker Faire Orlando is a community-organized, family-friendly celebration featuring local do-it-yourself science, art, rockets, robots, crafts, technology, music, hands-on-activities, and more. It's an event where people show what they are making and share what they are learning. Maker Faire Orlando is produced by The Maker Effect Foundation, a non-profit organization.

Field Trip Day at Maker Faire Orlando

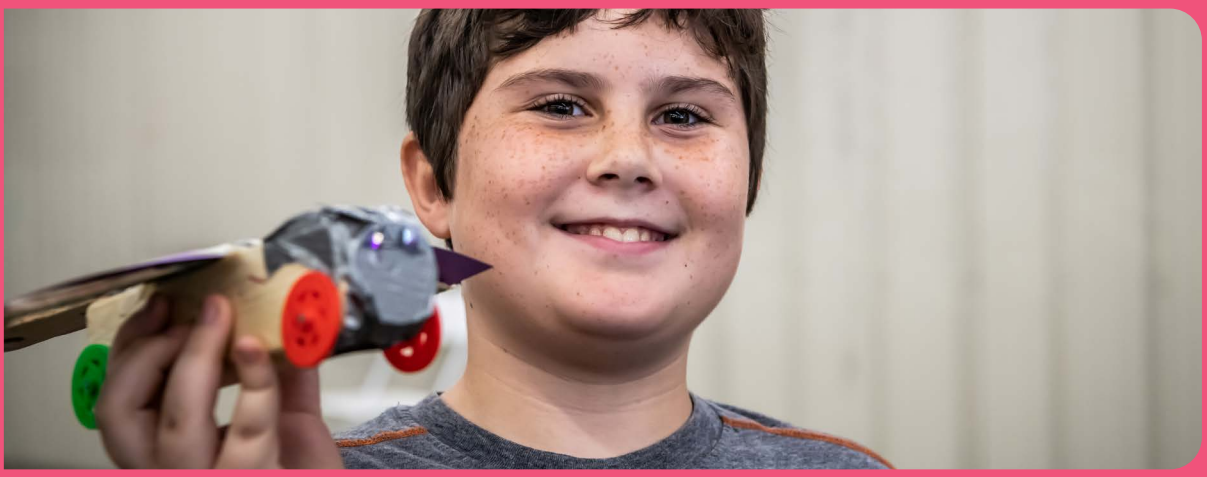
Here's the best part!

The Maker Effect Foundation and their sponsors are inviting students to experience a one-of-a-kind day of hands-on learning, creativity, and innovation!

This special preview day is designed exclusively for public, private, and charter school field trips, homeschool students, co-ops and full-time virtual school students. Students and educators will have the chance to immerse themselves in interactive exhibits and engage directly with makers, artists, engineers, and inventors from around the world! With a focus on STEAM (Science, Technology, Engineering, Art, and Math), the day is full of enriching experiences that bring learning to life.

Field Trip Day provides a unique opportunity for students and educators to:

- Meet and interact with real-world makers and creators
- Explore innovative technologies and artistic processes
- Participate in hands-on projects designed to inspire creativity and critical thinking
- Discover potential career paths and hobbies rooted in the maker mindset

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7

Field Trip Day Schedule

Field Trip Hours:
Friday, November 7, 2025 | 10am-3pm

Maker Faire Orlando exhibit halls will feature more than 100 exhibits and will be open all day!

Additionally, the main stage will feature presenters and panels. Please note that seating will be limited.

10:30am–10:55am
Minecraft Makers
Main Stage

From castles to coasters, see how MCParks recreates world famous theme parks in Minecraft. Learn about the technology and teamwork needed to bring the project to life – and how you can get involved in future experiences!

11:00am–11:25am
YouTube Makers
Main Stage

Meet popular YouTube content creators as they share how creativity, cosplay, and 3D printing come together to inspire the next generation of makers.

11:30am–1:15pm
Lunch Seating
Main Stage

Grab lunch and then join us for air conditioned seating!

1:30pm–1:55pm
Young Makers
Main Stage

Meet inspiring young makers as they share how curiosity, creativity, and hands-on making are helping them build cool projects—and a bright future. Hosted by Joel Telling of 3D Printing Nerd.

2:00pm–2:25pm
Robot Makers
Main Stage

Meet passionate robot makers—from high school teams to seasoned builders—as they share how design, engineering, and competition fuel their creations in FIRST robotics and combat arenas.

Field Trip Day Rules & Expectations

Deets that make the diff:

1. There will be no day-of attendees admitted. Please ensure you have submitted the proper forms to gain access for you and your students.
   Check makerfaireorlando.com/field-trip-day/ for details and deadlines.
2. Tickets will be sent via email with instructions for entry.
3. Students must always be supervised by an adult at all times. Please ensure the proper ratio of adults to students is enforced all day.
4. Wear comfortable walking shoes, closed-toes shoes are recommended.
5. Please ensure your group stays on the designated paths and areas.
6. Be respectful and polite to everyone.
7. Listen to the instructions provided by Maker Faire volunteers, makers, and staff.
8. Respect your surroundings. There will be many exciting things at Maker Faire, but keep in mind some makers may prefer for people to only look at their items and not touch.
9. Bringing money is not necessary, however there will be food, drinks, and items for purchase. Some activities will have a cost, for example, making your own Maker Faire Orlando T-shirt is $10.

Best Practices at MFO

It's cool to be weird.

Makers are innovative, iterative, creative folks, so sometimes their ideas seem a little... strange. But often those weird and wild ideas have the most potential in becoming the best creations! Think about how strange the idea of a bicycle or a 3D printer was when makers first thought of them!

It's cool to be excited.

When you walk around Maker Faire Orlando, it's truly incredible to see the inventions, machines, artwork, and costumes all around you. If you think it's awesome, say so! Makers work really hard to get their creations to the end result that you're seeing, so don't hold back on your excitement!

It's cool to ask questions.

While making stuff, makers fail a lot before they succeed, it's just a part of the process. So although it was tough work for them, it's great news for you because it means they know A LOT about their creation and they probably want to talk about it. So, don't hold back your questions, makers want share!

It's cool to be inspired.

Find the thing you're interested in and get involved. If it's a hands-on experience, try it. If someone is there to talk to, ask them how it was made. Write down your own ideas and thoughts to try at school or at home. Everyone can leave MFO with an idea to try, a new hobby to begin, or a group to join.

Prep, Prompts, & Projects for Students!

Ways to prepare students for MFO Field Trip Day:

1. The week prior to your field trip, read through the "Field Trip Day Rules & Expectations" section of this guide with your students. Please also email the information to any chaperones joining in on the fun.

2. Begin a discussion about Maker Faire Orlando with your class or classes. Some students may have attended in the past and can provide insights to those unfamiliar. Be sure to explain the sections, "Your Official Introduction to Maker Faire Orlando" and "Best Practices" from this guide.

3. Make sure to send emails home with any information from this guide you think caregivers may need such as "Your Official Introduction to Maker Faire Orlando", "Field Trip Day at Maker Faire Orlando", and "Maker Faire Rules & Expectations".

4. If you choose to use any of the prompts or projects from this guide, prepare your students with the ways in which you plan to use them. They might even need to do some research at the event!

Pre-Field Trip Prompts

Use these prompts to keep the discussion going once your students understand what to expect at Maker Faire. They can be used as discussion starters or writing prompts.

What types of makers or technologies are you going to be looking for at the event?

What might be the largest creation we will see at Maker Faire?

Why is art included in S.T.E.A.M.? What examples might you see at MFO to support your argument?

Video game creation falls under the category of S.T.E.A.M. Why do you think it belongs there? What kinds of game creation might we see at MFO?

What solutions to real-world problems do you think we might see at Maker Faire Orlando? What problems do you think need inventions to be solved?

S.T.E.A.M. stands for Science, Technology, Engineering, Art, and Mathematics. Which of these is your favorite and why?

Often you seen materials used in unexpected ways at MFO, for example using a PlayStation controller to control a robot instead of a video game. What might we see get used in a new way at MFO?

How might you see math utilized at the Maker Faire?

What device do you use most often? In what ways might makers view that device? What could they make from it?

Field Trip Day Student Projects

The following four projects ask students to dive deeper into their Maker Faire experience. Assign them to students prior to the field trip so they know what information to collect at the faire.

1. Network with Makers & Inventors

Age Recommendation: HS

Materials: pencil/pen & notebook

Assignment:

Makers and inventors of various STEAM fields will be at Maker Faire Orlando and your job is to engage in conversation with at least 5 of them that spark your curiosity. Learn what they do and how they do it! Be sure to collect their business cards, gain detailed information about their creative processes, and write down important facts you learn from them. Then, fill out the following information sheet about those creators.

Sample Questions:

1. How did you create this?
2. What does your process look like?
3. How long does it take to create this from brainstorm to finished product?
4. What materials do you use?
5. What inspired you to do this?
6. Are you working on the next version or iteration of this? If so, what is it?
7. How did you start creating things like this?

Network with Makers & Inventors Info Sheet:

1. Make a list of all the makers you met and what they made:

Maker/Organization:	Product or Service:	STEAM Elements Used:

2. Which maker was the most interesting or inspiring to you and why?

3. Now that you've seen so many possibilities, what did maker Faire inspire you to make or do?

4. Which organizations would you consider becoming a volunteer or joining?

2. When It Does Not Exist, Design It!

Age Recommendation: MS & HS

Materials: pencil/pen & notebook

Assignment:

A favorite at Maker Faire Orlando is robots! From R2D2 to 3D printers, you will likely see robots in all different shapes and sizes doing a variety of tasks. At the faire, observe 5 different robots then ask their makers some questions. Write down their functions, makers, sizes, and build materials in the info grid. Then complete the compare and contrast info sheet.

Robot: a machine capable of carrying out a complex series of actions automatically, especially one programmable by a computer.

Engineering: the branch of science and technology concerned with the design, building, and use of engines, machines, and structures.

Sample Questions:

1. What functions can this robot perform?
2. What pieces, parts, and software allow this robot to function?
3. What materials did you use to build this robot?
4. What challenges did you encounter when designing or building it?
5. What was a solution you found to one of the challenges you experienced?
6. If you were to build it again, what would you do differently?

Robot Info Sheet:

1. Fill out the robot info grid

Maker/Organization:	Robot Functions:	Size:	Materials Used:

2. Using your info grid, which robot did you find to be the most complex and the least complex build?

3. Of those two, which would you rather operate and why?

4. Of all the robots you saw, which robot do you think is the most helpful to humans? Why?

3. Don't Forget The Art Part!

Age Recommendation: MS & HS

Materials: pencil/pen & notebook

Assignment:

The difference between STEM (Science, Technology, Engineering, Mathematics) and STEAM (Science, Technology, Engineering, Art, Mathematics) is the element of art. Art has the ability to take important STEM creations and make them more user friendly, eye-catching, and can even add storytelling. As you walk through Maker Faire, take note of at least 5 makers that utilize the element of art. Be sure to write down the maker's name, what they create, and how they utilize art in their production. Then, fill out the following info sheet about those creators.

Art: the expression or application of human creative skill and imagination, typically in a visual form such as painting or sculpture, producing works to be appreciated primarily for their beauty or emotional power.

Examples of Art Uses in STEAM:

1. Making user interfaces attractive and easy to navigate
2. Giving games or builds storytelling elements (characters, settings, emotion, tension)
3. Creating interest through color or graphics
4. Creating clear communication and directions through infographics and animations
5. Sketching and prototyping to visualize concepts
6. Sculpting models to work out challenges before the main build

Art Info Sheet:

1. Make a list of all the makers you met and how they utilized art:

Maker/Organization:	Product or Service:	Art Use:

2. How important did you find art to notice, understand, or enjoy each maker's creations?

3. What are the arguments behind being Team STEM or Team STEAM?

4. Now that you've seen so many possibilities, what did Maker Faire inspire you to make or do?

4. Wonder Makers

Age Recommendation: MS & HS

Materials: pencil/pen & notebook

Assignment:

Makers are everywhere: on YouTube, building stuff in their garages, behind the scenes of movies and tv shows, building your favorite theme parks, and helping at kids' schools! All makers start somewhere and were inspired by something or someone. Pick one or two names on the list of famous makers, then research them and answer the questions on the info sheet.

Famous Makers:

- Adam Savage
- Lanny Smoot
- Kari Byron
- Jim Henson
- Jessica O. Matthews
- Wayne White
- Christine McConnell
- Jamie Hyneman
- Grant Imahara
- Simone Giertz
- Joseph Herscher
- Mark Roper

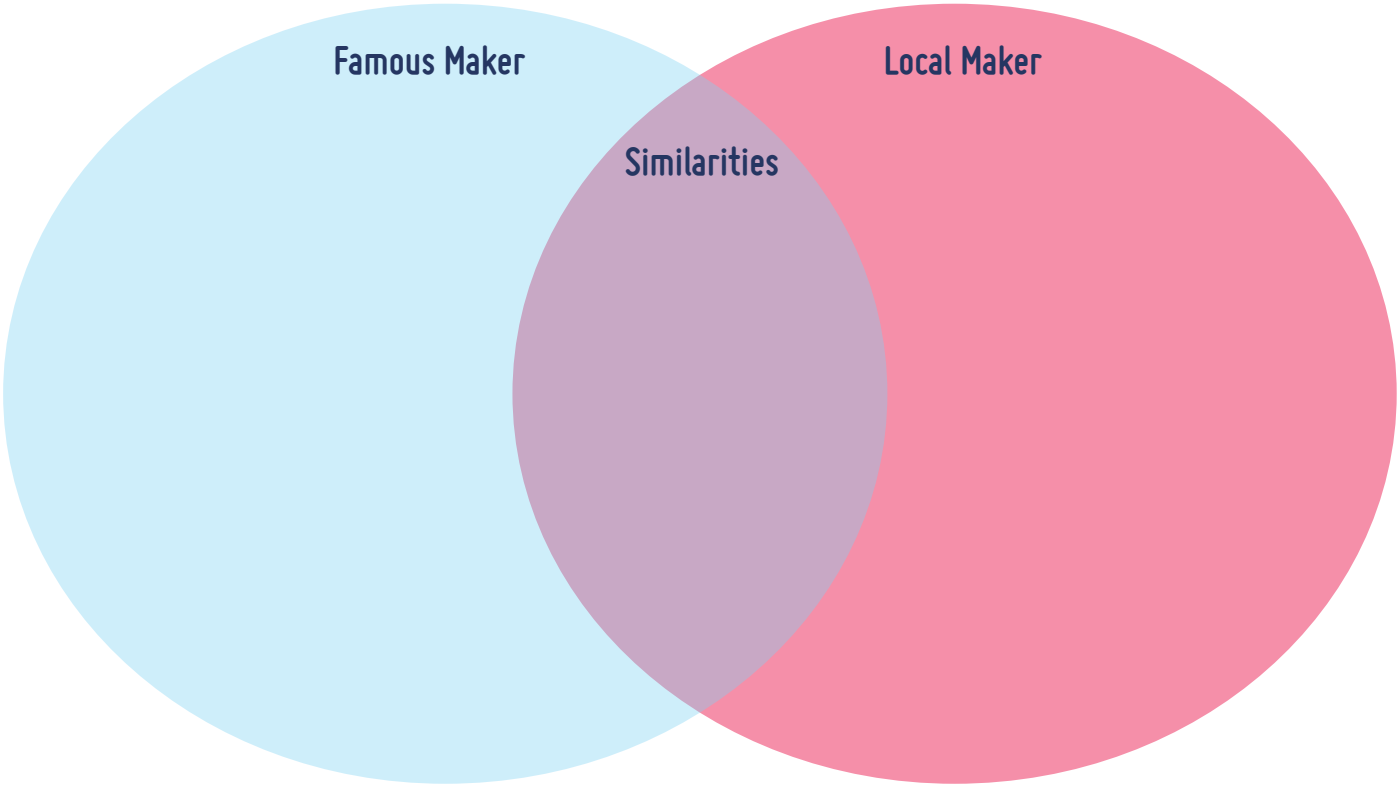
Makers Info Sheet:

1. Which maker did you research?

2. What things have they made?

3. Which elements of STEAM do they use when making their stuff and how?

4. At Maker Faire, choose your favorite maker then explain how they were similar and different.



Communities & Careers

There's lots of cool stuff after Maker Faire too!

Community Resources:

First Robotics: FIRST is the world's leading youth robotics community, delivering hands-on STEM learning that inspires innovation, builds confidence, and prepares kids for life. Across the globe, students thrive in our programs — powered by mentorship, teamwork, creativity, and engineering challenges. Join a team or start your own at FirstInspires.org.

MakerFX: MakerFX Makerspace is a community makerspace in South Orlando. We welcome makers of all types, from crafters to artists to robotics builders. Whatever you like to make, you'll find a welcoming community that can help you learn, and wants to learn from you. We are active in the local community and you'll often find MakerFX members showing off what they make at events, volunteering with community projects, partnering with organizations like Boys & Girls Clubs of Central Florida, and much, much more. We also like to work collaboratively with other Orlando Makerspaces such as FamiLAB. Go to MakerFX.org to learn how to join or schedule a tour.

FamiLAB: FamiLAB is a maker space that welcomes makers of all kinds including artists, crafters, tinkerers, hackers, and anyone else who wants a safe and creative space to make in. FamiLab is a community that fosters learning and creativity through hands-on projects, collaboration, and the sharing of skills & tools to improve ourselves and enrich the world around us. Go to FamiLAB.org to learn how to join.

The Hive at Orlando Science Center: In addition to 4 levels of engaging exhibits, live programs, immersive theaters, and special events, Orlando Science Center also has a maker space for guests 8 years old and up! The Hive is a collaborative work space for making, learning, exploring, and sharing; where you'll have access to real tools, materials and mentors that will help you turn your creative ideas into reality. Check out the Hive's scheduled activities and workshops at OSC.org/visit/science-live/makerspace/.

Volunteer Opportunities:

Maker Faire Orlando: Maker Faire Orlando volunteers must be 13 years of age or older. (Some roles require 16+ or 18+) Community service hours are available from The Maker Effect Foundation, a 501(c)(3) public charity. If you have any questions about volunteering at Maker Faire Orlando, or if you have a specific skill-set (especially photography/videography) not listed below, please email us at makers@makerfaireorlando.com.

Orlando Science Center: Share your passion for learning and make an impact on future generations of innovators and explorers! OSC has volunteer programs for adults and teens 13-17. Go to OSC.org/support/volunteer/youth-volunteers/ to see when applications open for teens, and go to OSC.org/support/volunteer/adult-volunteers/ for adults.

MCParks: For over ten years, MCParks has been dedicated to our mission to create the ultimate destination for theme parks in Minecraft. If you'd like to join the all-volunteer team, go to MCParks.us/apply to apply.

Be sure to look out for more awesome resources and volunteer opportunities at Maker Faire!

STEAM Careers

There's so much to be done!

Themed Entertainment:

Graphic Designer

Environmental Designer

Fabricator

Ride Engineer

Exhibit Design

Sound & Lighting Design

3D Designer

Animator

Show Control Programmer

Show Set Designer

Production Designer

Illustrator

Mathematics:

Financial Analyst

Statistical Analyst

Computer Scientist

Economist

Manufacturing:

Industrial Engineer

Material Science Engineer

Maintenance Technician

Robotics Engineer

Product Design

Technology:

Data Analyst

Video Game Programmer

IT Specialist

Drone Pilot

Data Scientist

Software Developer

Cybersecurity/Cryptographer

Education:

Curriculum Writer/Developer

STEM Teacher

Wait! There's more!

Building & Construction:

Civil Engineer

Architect

CAD Design

Surveyor

Structural Engineer

Project Manager

Cost Estimator

Healthcare:

Registered Nurse

Physician/ Medical Doctor

Radiologic Technician

Pharmacy Technician

Biostatician

Epidemiologist

Health Data Scientist

Clinical Researcher

Aerospace:

Aeronautical Engineer

Astronautical Engineer

Propulsion Engineer

Thermal Engineer

Atmospheric Scientist

Aerospace Robotics Engineer

Aircraft Structural Repairer

Aerospace Technician

Geophysical Navigation Engineer

Planetary Scientist

Aerospace Research Scientist

Skilled Trades:

Electrician

Welder

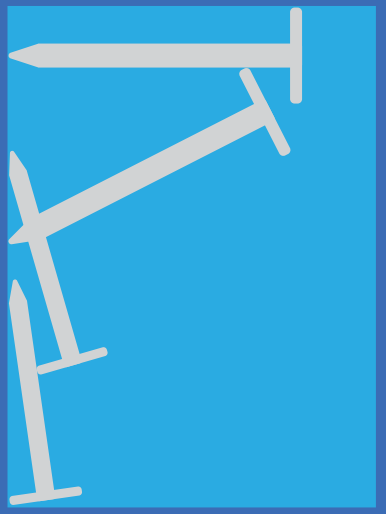
Millwright

CNC Machinist

Choose a job you love, and you'll never have to work a day in your life!

NOTES:

Have a great idea for a field trip day or feedback from your notes?
Send it to us at makers@makerfaireorlando.com



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