# **5 Reasons Why You Should Teach Robotics To Your Students**

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Did you know "**the US is home to 310,700 industrial robots, and that number increases by at least 40,000 each year?**" (Flynn 2023). Teaching robotics is a great way to prepare students for the modern day workforce. There is a great chance today's students will be working alongside robots in their future careers.

Robotics combines science, engineering, math, and technology — encouraging problemsolving, creativity, and analytical thinking skills. Here are 5 reasons why you should consider teaching robotics in your classroom today.

Click here for ready-to-go robotics lesson plans!



## 1. Stimulates Critical Thinking Skills.

Robotics offers students an opportunity to employ critical thinking within a tangible experience. Students think and experiment with their robotic creations. By doing this, students are learning on a deeper level, performing complex tasks and developing solutions to problems that may arise while working on their project.

#### 2. Enhances Problem-Solving Skills.

Robotics can help give your students the problem-solving skills that will benefit them all throughout their lives. Through robotics, students must use analytical skills to create a solution to the problem. Then they'll use creative, innovative thinking to make sure their robot is able to successfully perform a given task. They are sure to run into obstacles along the way and must develop their own solutions to overcome these challenges.

#### 3. Builds Maker and Design Mindsets.

By teaching robotics to your students, you can help them build the maker and design mindsets. With robotics, students get to have hands-on experience building something that works, allowing them to learn the <u>engineering design process</u> firsthand. They learn how to come up with solutions to problems, recognize potential flaws in their solution, and then modify their design as necessary. This problem-solving experience prepares them for future challenges and makes them more effective learners. This <u>design mindset</u> will benefit students throughout their academic careers and beyond.

## 4. Encourages Collaboration and Teamwork.

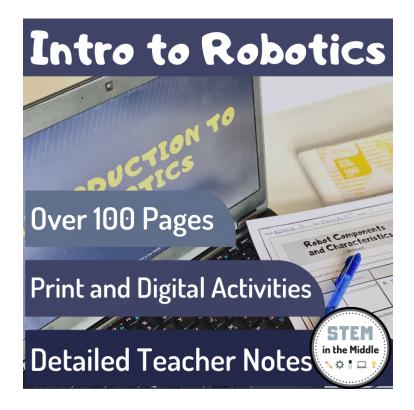
Robotics education encourages students to work together to research, brainstorm, build, and customize robots. This helps foster collaboration and teamwork skills that are important not only in academic settings, but in professional settings as well. It also helps break down any barriers between grades or abilities, with everyone working to come up with the best solution. Working together on projects gives an opportunity for students to learn from each other, strengthening communication and problem-solving skills in a positive environment.

## 5. Develops Professional Communication Skills.

Teaching robotics to students helps develop professional communication skills. Robotics requires students to work together and discuss ideas in a positive manner. They must be able to explain their thought process or any design decisions to the team and remain open to others' perspectives. By teaching robotics, you help your students understand how discussion, compromise and collaboration can lead to successful solutions for technology-driven projects.

## Ready to get started teaching robotics?

Now that you know all the fantastic things to come when you start teaching robotics, it's time to start planning lessons. Check out this ready-to-go <u>intro robotics unit</u> with everything you need for 3 weeks of learning and fun.



Introducing middle school students to the basics of robotics can be tricky! This complete unit will engage and amaze your students as they learn the fundamentals of robotics. The bundle includes over 100 pages of resources that can be used individually where they fit best within your STEM course or taught in sequence as a 3-week robotics unit.

Grab the lessons here!

#### Works Cited

Flynn, J. (2023). 36+ Alarming Automation and Job Loss Statistics. *Zippia*. Retrieved from https://www.zippia.com/advice/automation-and-job-loss-statistics/#:~:text=The%20US%20is%20home%20to,46%25%20of%20the%20current%20jobs.