

AoW 12 Directions:

1. Annotate (write your thoughts, questions, etc.) the text (10 points)
2. Identify (circle, underline, highlight, etc.) key words in 1-4. (5 points each question)
3. Circle the BEST answers for 1-4. (10 points each question)
4. On a separate sheet of paper, write a 3-5 sentence rationale justifying your chosen answer for 1-4. (5 points for each rationale)
5. Write a well-written paragraph summary of this text. Your summary must be 5-7 sentences. (10 points)

Job seekers have a problem with math problems, employers say

By McClatchy-Tribune, adapted by Newsela staff

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Anyone seeking a job at General Plastics Manufacturing Co. in Tacoma, Washington, must first take a math test. The test has 18 questions, takes 30 minutes, and using a calculator is OK.

The company, which makes foam products for aircraft, asks applicants how to convert inches to feet. They also must show they know how to read a tape measure. They are quizzed on how to find the density of a block of foam. Answer: divide the mass by the volume.

Basic middle school math, right? It's supposed to be.

However, only 1 in 10 who take the test pass, and the company only considers applicants with a high school education. And that is not just bad luck at a single factory or in a single industry.

This troubles Eric Hahn, a vice president at General Plastics. Hahn said that scores on his company's math test have been poor for the past six years. He also serves on a workforce training committee for the aircraft industry. He said that most other Washington state suppliers in his line of business have been seeing the same problem.

"You could think that even for production, do you really need to know math?" said Jacey Wilkins, a spokeswoman for the Manufacturing Institute. "But the truth is, you do, because these jobs are incredibly complex and integrate multiple functions and systems."

Indeed, in working with machinery and making precise products, "people really do need a basic understanding of math," she said.

Something Doesn't Add Up

But math has been a problem. The United States ranks below average in math compared with other wealthy countries and regions. The National Math and Science Initiative noted that 54 percent of high school graduates are not ready to go on in math. The figure is based on students who took ACT's "college and career readiness" exam in 2012.

After several years of tough times, U.S. businesses are starting to perform better. They are looking to hire new employees. However, a lack of basic math knowledge could present a problem to people looking for work.

"Manufacturers are willing to train people about the specifics of their machines and technology," said Linda Nguyen, CEO of Work Force Central, a partnership that trains workers in Washington. "But they can't afford to hire someone who needs to relearn basic math."

Educators are aware of what manufacturers like General Plastics face. They are looking for ways to make math relate to the real world. That way, students will grasp why it is necessary and they will want to stick with it. Some educators want to change the way it is taught. "It's really been rote memorization," said Dave Yanofsky of ConnectEd: The California Center for College and Career.

The center encourages what it calls "linked learning" in high school. Linked learning combines academics, technical education and work experience. The center has developed a middle school math curriculum that uses projects and encourages group work.

Doing The Math

Linda Gojak is president of the National Council of Teachers of Mathematics. She likens the traditional style of teaching math to "practicing the piano," because students are told to practice until they can finally do it. But her group is trying to "help teachers teach mathematics so kids make sense of what they're doing." She adds, "and it really does stick beyond what they learn in class."

Twenty school districts in California are testing a program designed to make classroom learning more relevant.

Math learning also will change with the Common Core standards. The Common Core is an effort to set learning standards in math and English for kindergarten through high school. Forty-five states have adopted the standards. They will match up with what students need to know for success in college and jobs, said Sam Houston, president and CEO of the North Carolina Science, Math and Technology Education Center near Raleigh.

North Carolina is one of the states that will be using the Common Core. "In the hands of a trained professional," Houston said, "the Common Core should give everyone a better means to answer the question, 'Why do I need to know this?'"

For manufacturers like Hahn, changes in teaching math cannot come soon enough. "Manpower training for manufacturing is a critical issue right now," he said. "The development of highly skilled workers is essential if we are to produce good products and grow our industry."

1. What is the central idea of the article?
 - a. Teachers are learning new methods for teaching math.
 - b. Company trainers are seeking ways to improve math skills.
 - c. Manufacturers are hiring applicants with the highest math scores.
 - d. Students are entering the job market without the needed math skills.
2. Which sentence from the article is NOT important enough to include in a summary of the article?
 - a. But math has been a problem.
 - b. The United States ranks below average in math compared with other wealthy countries and regions.
 - c. The National Math and Science Initiative noted that 54 percent of high school graduates are not ready to go on in math.
 - d. The figure is based on students who took ACT's "college and career readiness" exam in 2012.
3. Which detail from the article BEST supports the main idea?
 - a. The company, which makes foam products for aircrafts, asks applicants how to convert inches to feet.
 - b. Indeed, in working with machinery and making precise products, "people really do need a basic understanding of math," she said.
 - c. After several years of tough times, U.S. businesses are starting to perform better.
 - d. The center has developed a middle-school math curriculum that uses projects and encourages group work.

4. Read this selection from the article. Educators are aware of what manufacturers like General Plastics face. They are looking for ways to make math relate to the real world. That way, students will grasp why it is necessary and they will want to stick with it. Some educators want to change the way it is taught. "It's really been rote memorization," said Dave Yanofsky of ConnectEd: The California Center for College and Career. The center encourages what it calls "linked learning" in high school. Linked learning combines academics, technical education and work experience. The center has developed a middle-school math curriculum that uses projects and encourages group work. What could be a section title for these two paragraphs?
 - a. "Linked Learning"
 - b. "New Ways To Teach Math"
 - c. "California Center For Educators"
 - d. "General Plastics Supports Academics"
5. How does the author support the main idea throughout the course of the article?
 - a. The author provides a list of ways to solve math problems.
 - b. The author demonstrates how math is used in the workplace.
 - c. The author shares quotes from experts about the need for math skills.
 - d. The author follows high school graduates applying for jobs that use math.

SUMMARY: