

## READING COMPREHENSION TEST

Answer all the following questions about the document in English **in your own words**.

The questions may not follow the order of the text.

**N.B.: text copy is marked zero**

1. Present the document in ONE sentence. (/1)
2. What does the text deal with? Sum it up in a 3-line paragraph. (/1)
3. Explain what measure New York City is planning to implement and how it will work in practice. (/3)
4. Compare New York's initiative to those launched by other U.S. cities? (/2)
5. What is the main obstacle to the development of computer science education and how can it be overcome? (/3)
6. What part are technology companies playing in computer science education? Why? (/2)
7. What types of students does the New York initiative target? Why? (/2)
8. What is the current situation of the IT business sector in New York and in the U.S. respectively? (/2)
9. What is the position of computer science in the U.S. education system? (/2)
10. According to Mr. Samuels-Kalow, what impact may computer science courses have on students' school results? Why? (/2)

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### De Blasio to Announce 10-Year Deadline to Offer Computer Science to All Students

To ensure that every child can learn the skills required to work in New York City's fast-growing technology sector, Mayor Bill de Blasio will announce on Wednesday that within 10 years all of the city's public schools will be required to offer computer science to all students.

Meeting that goal will present major challenges, mostly in training enough teachers. There is no state teacher certification in computer science, and no pipeline of computer science teachers coming out of college. Fewer than 10 percent of city schools currently offer any form of computer science education, and only 1 percent of students receive it, according to estimates by the city's Department of Education.

Computer science will not become a graduation requirement, and middle and high schools may choose to offer it only as an elective. But the goal is for all students, even those in elementary school and those in the poorest neighborhoods, to have some exposure to computer science, whether



building robots or learning to use basic programming languages like Scratch, which was devised by the Massachusetts Institute of Technology to teach young children the rudiments of coding.

At least two other American cities have recently made commitments to offering computer science to all their students. Chicago has gone the furthest, pledging to make a yearlong computer science course a high school graduation requirement by 2018, and to offer computer science to at least a quarter of elementary school children by then. The San Francisco Board of Education voted in June to offer it from prekindergarten through high school, and to make it mandatory through eighth grade.

Technology companies, which have been criticized for having very few female and minority employees, have supported these efforts, partly to expand and diversify the pool of qualified job applicants. Google and Microsoft have contributed to Chicago's initiative, and San Francisco has received financing from Salesforce, Facebook and Zynga.

Noting that tech jobs in New York City grew 57 percent from 2007 to 2014, Gabrielle Fialkoff, the director of the city's Office of Strategic Partnerships, said, "I think there is acknowledgment that we need our students better prepared for these jobs and to address equity and diversity within the sector, as well." New York City plans to spend \$81 million over 10 years, half of which it hopes to raise from private sources.

Nationally, computer science jobs are some of the fastest growing and highest paying, but a majority of students have no access to computer science classes before college. A quarter of principals say their schools offer computer programming courses, according to data from Google and Gallup. Just 6 percent of high schools are certified to offer Advanced Placement computer science courses. But interest in computer science is growing among both schools and students. Last year, the number of students taking the A.P. test increased 25 percent over the year before, to 48,994.

The Laboratory School of Finance and Technology, a middle and high school in the Bronx, requires all its students to take computer science courses in each year of middle school. One of the school's computer science teachers, Ben Samuels-Kalow, said he found that students were often willing to work harder in his classes than in their other classes, because the rewards of, say, being able to play a game that they had designed were so enticing. And, by working with his colleagues, he said, he could sometimes find ways to reinforce concepts that students were struggling with in other courses.

In New York City, as in the rest of the country, the students who elect to take computer science courses tend to be male and either white or Asian. Of the 738 city students who took the Advanced Placement examination in computer science in 2014, only 19 percent were black or Latino and only 29 percent were female, according to the Education Department. (The fractions are even lower nationally.) City officials hope that exposing all students to computer science concepts in elementary school will increase those numbers. "If we can get them earlier, I think we can get them excited about it," Mr. Wilson said.

*Source:* Adapted from Kate TAYLOR and Claire CAIN MILLER, "De Blasio to Announce 10-Year Deadline to Offer Computer Science to All Students," *The New York Times*, Sept. 15, 2015.