

Directions:

Read the following text carefully and then translate the underlined segments into Chinese. Write your answers on the ANSWER SHEET. (10 points)

Science education today revolves around the idea of scientific literacy — the base-level knowledge about science that nonscientists require to effectively get on in the world. This concept has served as a central goal for curriculum developers, local school boards, business and community leaders, and policymakers ever since its introduction nearly 80 years ago.

(46)Tracing the history of the term, we can see how the definition of scientific literacy has shifted over time, muddying the waters when it comes to determining the goals of science education. And that's a shame, because there is much to recommend in the idea of scientific literacy as it was originally articulated in 1945, a time when science appeared to be the key to progress and scientists seemingly held the fate of the world in their hands. (47)A return to that version of scientific literacy, which focused more on teaching what science is and how it works and less on memorizing scientific facts, seems like something society today desperately needs.

In the United States, the desire to provide the public with a general, nontechnical education in science originated as far back as the late 1800s. (48)Educators advanced the idea of having students complete detailed laboratory exercises in high schools in the belief that such work was beneficial primarily as a way to enhance logical reasoning and observational skills. The development in 1915 of the popular new subject "general science" was another effort to train students to apply the principles of science to everyday, nonscience problems.

Although these efforts were aimed at the nonscience-bound student, they never really made their way into mainstream thought and public discourse as a means to rally widespread support for the importance of science teaching in schools. (49)It wasn't until the phrase "scientific literacy" came along in the 1940s that science had the formidable slogan it needed to command public attention and make improving science education an important national goal.

(50)The intense focus on scientific literacy in the United States originally grew out of the critical role of science and technology during World War II, as well as the perceived deficiencies of American soldiers. As the war unfolded, science rapidly assumed a central role. Battles increasingly depended on new military technologies such as radar and the proximity fuze. Science-based analytical approaches proved remarkably successful in the hunt for German submarines in the Atlantic Ocean. And there was the (then-secret) work building the world's first atomic bomb. As a result, scientists — physicists in particular — found themselves in high demand.