

Precise Science and Social Welfare

Precise science serves as the foundation of modern knowledge, aimed at interpreting and organizing the surrounding world. By employing accurate measurements, mathematical principles, and experimental methods, it strives to provide a deeper understanding of the laws and structures of nature. A hallmark of precise science is its emphasis on empirical measurements and quantifiable data grounded in scientific evidence. This approach enables scientists to achieve results that can be verified through repeatability and independent testing. By offering a robust analytical framework, precise science helps societies gain a better understanding of natural phenomena and leverage this knowledge to improve quality of life. Leading scientific nations that have achieved wealth and a degree of social welfare are those that have expanded the frontiers of science, made significant discoveries, and activated their intellectual and creative capacities. These nations produce high-quality goods and services while identifying effective solutions to societal challenges, using these advancements as a basis for governing their countries. Scientific discovery not only enhances individual cultural potential and fosters social pride but also establishes a creative foundation for transformative innovation, technological advancement, and societal progress.

Nevertheless, precise science has its limitations. It faces challenges in interpreting highly complex and unknown phenomena that lie beyond the reach of current sensory and technological tools. Fundamental aspects of precise science, such as physical models and scientific assumptions, may evolve or improve over time due to the dynamic and ever-developing nature of knowledge. This constant evolution highlights the drive of precise science to seek new pathways and expand its understanding. Precise science is a dynamic process of change and improvement, striving to optimize parameters in response to the shifting conditions of different eras. This adaptability allows scientists to continuously ask new questions and push the boundaries of knowledge. Such efforts not only lead to technological advancements and enhanced living standards but also inspire deeper understanding and scientific breakthroughs. A critical point to emphasize is that precise science originates from deep thinking and is realized through highly advanced measurement tools. Discovering precise science requires both knowledgeable and thoughtful human resources, as well as precision instruments capable of measuring and imaging at molecular and atomic scales. These tools, which operate on extremely short timescales such as attoseconds or zeptoseconds, are essential in today's scientific advancements and will continue to evolve in the future. Moreover, it is vital to link today's data with historical datasets while incorporating projections of future trends to achieve a comprehensive understanding of the dynamic nature of science. Consequently, nations must invest in nurturing, protecting, and satisfying their intellectual talent. They must also develop and implement advanced measurement technologies integrated with artificial intelligence and big data, supported by high-speed internet at both national and international levels. Dynamic scientific diplomacy, facilitated by collaboration among scientists and intellectuals, is another key element for advancing science through global scientific partnerships. Preserving scientific talent requires urgent and strategic short-term planning to mitigate and reverse the effects of brain drain. It is important to note that science is not merely data and information; it ultimately depends on capable and knowledgeable individuals. By wisely and effectively utilizing data and information, they can find solutions to problems and, through their knowledge and faith, pave the way for societal progress and welfare.

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