Think about your classroom. When your students encounter an interesting question or a problem they can’t solve quickly, what do they do? Do they investigate or want to know more? Taking it a step further, how do students try to answer questions or solve problems? Are they satisfied with a quick internet search or listening to one personal account or solution? When given information, do they evaluate the quality or reliability of the science behind it? With questions such as these, we need to be asking ourselves how we are genuinely supporting scientific literacy in our classrooms.

According to the Programme for International Student Assessment (PISA 2018), scientific literacy refers to an individual’s understanding of science concepts, phenomena, and processes. This also includes their ability to use this knowledge in new or non-scientific situations.

We need to provide substantial time in the classroom for students to learn what science can and cannot do beyond the traditional focus of only science terms and concepts. One thing we know: Attitudes about science are developed and nurtured in the early years; therefore, supporting students to think scientifically and problem-solve like engineers is even more essential than knowing a notebook full of facts. All students, even those who will not one day pursue science or STEM-related fields, need to be encouraged to use scientific knowledge as they figure things out and find answers. The importance of a scientifically literate citizenry has become imperative as we grapple with worldwide issues of health, environment, and natural resources, to name a few.

A recent article on WIRED reported that the pandemic pushed people to be more scientifically literate despite all the misinformation out there. Can we use this renewed interest in science to explore with our students what science is and what it is not?

Our students need to be challenged to solve complex, interconnected, authentic problems that affect their lives. They need to learn how to navigate the explosion of information to begin to determine quality and value. Our younger learners need to routinely use their scientific knowledge and processes to help make decisions and evaluate outcomes. They need to think about perspectives and how decisions or solutions can affect others in their community and beyond.

Enjoy reading the exciting ways our authors have shared ideas for elevating scientific literacy with students in grades preK to 5. We’d love to hear how you have supported scientific literacy in your classroom as well. Let’s work together to develop our next generation of students driven by curiosity and positioned to change our world!

Elizabeth Barrett-Zahn
EDITOR, Science and Children

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