



Ready!



Implementing the NM STEM Ready! Science Standards

Science and Engineering Practices - Obtaining, Evaluating, and Communicating Information

Sense making requires students to be engaged in understanding the world by generating, using, and extending scientific knowledge around a phenomenon (Schwarz et al., 2017). When classrooms focus science education on application [phenomenon] then students are motivated to explain and the focus of learning shifts from *learning about* a topic to *figuring out* why or how something happens. *A Framework for K–12 Science Education* emphasizes eight practices that scientists and engineers use in their profession and that students utilize in their K–12 science education. Obtaining, evaluating, and communicating information, one of the eight practices, helps students to communicate clearly and persuasively the ideas and methods they generate.

Obtaining, Evaluating, and Communicating Information

Students engaged in sense making gather the information they need, interpret, and evaluate based on the evidence gathered. Gathering, communicating, and critically examining information should further students' investigations and sense making of a phenomenon. Multiple modalities, including written text, graphs, charts or pictures, help students communicate information in clear, precise ways to justify their thinking. *A Framework for K–12 Science Education* stresses an outcome of a K–12 science education provides all students tools to critically obtain and consume related scientific information as a function of participating in local and global conversations and for personal or societal decision-making.

Classroom Practice

Using graphic organizers, question guides, anticipation guides, or learning logs helps students comprehend and interpret texts. Validate students' cultural ways of communicating information to others. Provide opportunities during the school year for students to communicate about their work to a wide variety of audiences (e.g., other students, community stakeholders, other teachers) to authentically communicate information and encourage local conversations around science and its impact to the local community.

References:

Schwarz, C.V., Passmore, C., & Reiser, B.J. (2017). *Helping students make sense of the world using next generation science and engineering practices*. Arlington, VA: NSTA Press, National Science Teachers Association.



Reach out to the [Math and Science Bureau staff](#) with questions or for more information.

Did You Know?

An article by Phillip Bell describes [classroom opportunities](#) for students to engage in obtaining, evaluating, and communicating science and engineering information.



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