The data revolution is underway and has had myriad impacts on society and culture. Children today face novel opportunities and challenges as they navigate an increasingly data-centric world. With each click, their worldly activities are noted, quantified, and distilled into data representation of who they are and in a way that no generation has ever experienced before. As rapidly as their engagement with data changes, so too are the literacies they need to navigate it safely and as critically engaged citizens. Data science and data science literacy represent productive frames for how we might prioritize efforts to support learners in their development in agency in connection to data. As laid out in the NSTA statement, released May 2024:

Data science bridges disciplines and thus should be introduced and taught across the curriculum in K-12 schools to help develop informed users of data. Data science captures the complexity of data and data methods that have arisen with advances in technology, including breakthroughs in artificial intelligence. It is a collaborative science that uses complex data and methods to explain trends and patterns with a critical piece being its interdisciplinary nature. K-12 education plays the critical role of scaffolding students’ experiences in addressing complex data sets. All subjects in school should recognize the contribution of data to their discipline and take curricular approaches that integrate data with disciplinary lessons where appropriate.

However, few in service teachers have, to date, engaged data science as part of their professional development or preservice teacher training. Thus, it proves challenging for teachers to develop and curate resources for students around best data science practices within science. In response to this challenge, Science and Children, Science Scope, and The Science Teacher are partnering to put forth a set of special issues to provide space for science educators and science education researchers to share perspectives and resources regarding data science in the science classroom across ages. Papers and lessons are welcomed on a wide range of data science topics such as data science inquiry and skill development, culturally responsive data sets and practices, critical data literacy, data collection with children, and data visualization. Please adhere to the word limits and author guidelines for the specific journal you are submitting to. If you have any questions, please contact the guest editors at Colby.tg@usu.edu or jtwalker@utep.edu.