



## SUPPORTING TEACHERS WITH TIME

### FOSS NEXT GENERATION IMPLEMENTATION

**After technology and materials management have been planned, the focus can shift to preparing and supporting teachers to implement FOSS.** There are a lot of demands on the elementary teacher. Often science is not seen as a priority and most of the classroom time is spent teaching English Language Arts (ELA) and mathematics. Teachers need to know that their administrators not only believe in the power of science education, but will support teacher efforts to find effective ways to use science as the context to practices skills developed in other areas of the curriculum.

**There are many reasons for science to be a core part of elementary school learning.** Science supports students with “21st century skills,” and there are significant opportunities for cross-subject integration with Next Generation Science Standards and Common Core State Standards (CCSS) in ELA and Math. Science experiences facilitate: (a) critical thinking, problem solving, and collaboration skills, (b) relevant learning of language and mathematics, (c) cultivation of wonder about the natural world, and (d) exposure to careers in STEM. Science experiences are motivating for students, and get them excited about learning and school.

**Teachers need time to plan** for integrating their science instruction. At the middle school level, giving teachers focused planning time as a science department supports successful classroom implementation.

In elementary grades, integrating ELA and science is a powerful way to educate children and make the most of the brief school day. Provide teachers with time and encouragement to strategically plan this integration. Typical literacy strategies (paraphrasing, read-alouds, summarizing, interactive reading, vocabulary etc.) can all be done within science instruction. FOSS has several resources to support teachers during their planning time. Look to these chapters in K-2; 3-5 and 6-8 grade bands: Science Notebooks and Science-Centered Language Development (on FOSSweb under **Teaching Tools**).

**Consider** the idea that non-fiction reading, such as the articles in *FOSS Science Resources* books, and writing aligned with ELA/ELD standards can be authentically taught and practiced using FOSS investigations as the context. Science writing includes recording observations and data, writing steps to a procedure/experiment, claims supported by evidence, writing summaries, and reflecting on new learning and further questions. Listening and speaking standards are very easily met during science discussions with partners and small groups, whole-class sense-making, and formal presentations.

**Students deepen their content understanding** and develop critical reading comprehension strategies using the *FOSS Science Resources* book. To support the convergence of science and literacy, plan together with librarians to include trade books that correspond to the FOSS modules to engage students in further science learning and literacy development. For grades K-5, these books are listed by module on FOSSweb (under **Teaching Tools, Science-Center Language**).

1. Managing Materials
2. Using FOSS Technology
3. Creating a Culture for Science
4. **SUPPORTING TEACHERS WITH TIME**
5. Supporting Teachers with Professional Learning
6. Supporting Teachers with Access and Equity
7. Using the FOSS Assessment System
8. Observing Classroom Practice
9. Making Community Connections
10. Getting More Information

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