1. Getting the Materials You Need to Teach Science
SFUSD is committed to ensuring that all elementary teachers have access to the materials they need to be able to teach the FOSS science curriculum. If you need materials for the 2015-2016 school year, follow the steps below:

1. Visit the SFUSD Science Website: www.sfusdscience.org/foss-refurbishment
2. Print out the inventory forms and schedule some time to go through your kits with your grade level colleagues.
3. Inventory the kits, noting what materials you will need to teach all classes next year.
4. Determine who will place the orders for your grade level. **Grade levels should only order once per module per site.** This means that if there are two Trees kits at your site, please only fill out one order form requesting all of the needed materials for both Trees kits.
5. Click on the name of the kit and place your online order.

If you have any questions along the way, email Theresa Hall hallt@sfusd.edu

2. Living Organisms Supply
Curriculum and Instruction will be providing the living organisms necessary to teach the FOSS curriculum for all SFUSD elementary teachers. The funds supporting these materials are not unlimited so the support will be available until the funds run out but we expect to be able to provide the necessary organisms to all who request them.

Orders for grade-level specific living organisms can be placed approximately every two weeks on the SFUSD Science website [http://www.sfusdscience.org/living-organisms.html](http://www.sfusdscience.org/living-organisms.html) Teachers should plan their orders so that the classroom is set up with a safe and appropriate environment for the living organisms and the packages should be opened as soon as they arrive.

3. Interdisciplinary Curriculum Maps
Teachers on Special Assignment from Humanities, Math, Science and MPD have been tasked with creating interdisciplinary curriculum maps and units for elementary school. Beginning in the 2015-2016 school year, these sample maps and units will be available for teachers to use as a resource to envision how science (and other subjects) fit together within a unit plan, and how the skills required in science, ELA and math complement and reinforce one another.

What has become increasingly clear through this work is that science is a superb context for reading, writing, listening and speaking in elementary classrooms, and that it is possible to “bundle” instructional minutes by using science as the content which is explored through Reader’s Workshop, Writer’s Workshop, and designated ELD.

4. School-Site Professional Development
The Science Department believes strongly in the power of working alongside colleagues at school sites to learn and build capacity in science. Our school site support this year has focused on three main concepts:

- Integrating Science with the Core Curriculum for English Language Arts
- Using Science Notebooking to Enhance Literacy Skills
- Getting to Know the Next Generation Science Standards
5. The Next Generation Science Standards

The Next Generation Science Standards (NGSS), developed by teachers, scientists, and leaders in science and science education from around the country, focus on the big ideas in science and emphasizes the common practices that scientists use every day, such as planning investigations, developing models, and designing solutions.

Like learning to ride a bike or play music, the experience of doing science is far more important than just reading about it in a book. The NGSS promote a new way of teaching and learning that allows students to actively do and experience science in a deep, meaningful way, not just learn about it from a textbook or a lecture. The standards accomplish this by integrating three dimensions of learning:

- **science disciplinary core ideas** (the content, for example, biology);
- **science and engineering practices** (how science and engineering are conducted in the real world, such as through planning and carrying out investigations); and
- **crosscutting concepts** (science ideas, like cause and effect, that permeate all the sciences).

The new standards also incorporate important engineering and technology principles, starting in elementary school. Most importantly, the NGSS set high expectations for all students, not just those planning to pursue STEM careers.

6. Are the NGSS different from the Common Core State Standards?

The NGSS were developed independently and are not part of the Common Core State Standards (CCSS) initiative. The CCSS initiative establishes goals for what students should know in mathematics (CCSS-M) and in English language arts (CCSS-ELA) at the end of each grade. While the CCSS-ELA standards do include goals for reading and writing within content areas, such as science, they do not and should not replace the NGSS. In contrast, the NGSS (released in 2013) present the science content, practices, and concepts students should know at different grade levels and build coherently as they progress from kindergarten to 12th grade. The NGSS development team worked closely with the CCSS writers to ensure the science standards align to the mathematics content and make important literacy connections.

8. We are Here to Support You!

The Science Team is here to support your science education efforts.

Science Website [www.sfusdscience.org](http://www.sfusdscience.org)

- Sarah Delaney delaneygs@sfusd.edu
- Emily Crouch croucheg@sfusd.edu
- Claudia Scharff scharffc@sfusd.edu
- Carolyn Gencarella gencarellac@sfusd.edu