



# Comprehensive, Customized Professional Development

Carolina Biological Supply Company



Smithsonian  
*Science Education Center*



Building Blocks  
OF SCIENCE™ | 3D

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# Overview

Carolina Biological Supply Company is committed to providing comprehensive, customized professional development to meet the needs of teachers and staff. Professional development is the key to successful implementation of the inquiry-based K–8 programs offered by Carolina Biological Supply Company.

Professional development is based on a learning progression for teachers. Teachers have different needs and experiences. The following professional development progression provides multiple opportunities in a variety of formats for all teachers to master the curriculum and implement best practices.



# Delivery

Professional development is offered in multiple formats, including hands-on workshops, webinars, and teacher resource videos. All hands-on workshops are taught by exemplary, practicing educators who receive training themselves each summer. Webinars are presented by experts in the field. Unit-specific teacher resource videos are available on CarolinaScienceOnline.com.



# Carolina Professional Development Plan



Carolina professional development represents a working partnership between the district and Carolina staff that begins with the initial purchase. Planning to develop a needs-based progression of learning for teachers begins immediately. The progression of learning consists of planning, implementing, assessing, advancing, and sustaining. The content of each step is determined by the district.



## Planning

Upon adopting a curriculum program from Carolina Biological Supply Company, a meeting will occur between Science Leadership and Carolina Leadership to customize a comprehensive plan that meets specific professional development needs. Together, we will evaluate this plan at mid-year and again at the end of the year to see that your needs are being met, but you may make adjustments at any time.

The professional development progression we develop through this partnership will be built from the ground up to assist your district's teachers in becoming successful not only in program implementation but in science content, pedagogy, and STEM education. Each step of the progression adds to your teachers' repertoires. Science Leadership may select from the Menu of Professional Development Offerings (page 7 of this brochure) to develop a comprehensive, coherent professional development plan. The customized plan may include professional development goals, measurable objectives, and assessment tools. The delivery of professional development may be face-to-face or via online sessions, including webinars and teacher resource videos.

## Implementing

As part of your partnership with Carolina, the implementation step of your professional development plan will prepare your teachers to understand curriculum program features, the 5E model, pedagogy, inquiry-based investigations, and program components, including CarolinaScienceOnline.com. Some of these teachers may go on to become Trainers of Trainers. All professional development will be in the context of your specific science standards. Implementation format options are face-to-face sessions, webinars, and online resources. A Who-To-Call list allows for immediate service for any issue related to program materials, technology, or content.

## Assessing/Needs Check-In

This critical phase of the professional development plan provides opportunities for teachers to self-evaluate and assess their own professional development needs. In addition, a Principal's NGSS Checklist helps administrators determine additional areas that could benefit from professional development. We will work together to modify your customized professional development progression as needed.



## Advancing

Advancing opportunities offer targeted support in areas such as NGSS, engineering design, and managing materials. These advancing sessions will be customized and offered based on how well your customized plan is meeting your needs after Assessing/Needs Check-In. The Menu of Professional Development Opportunities on page 7 of this brochure provides a complete list of advancing options.

## Sustaining

If your district implements state science standards, you know that this could potentially mean changes in content and in practices. Your partnership with Carolina continues as long as you choose. We can help you sustain district-wide professional development over time. Developing Trainers of Trainers in your district will ensure continuity and sustainability. The Menu of Professional Development Opportunities provides a complete list of sustaining opportunities.

## Assessing/Needs Check-In

In the spirit of on going, continual improvement, progress and needs must be assessed regularly. Teacher self-evaluation, teacher-needs assessment, and principal walk-throughs are some of the tools Carolina provides. Any additional needs that are determined as a result of these assessments can be addressed through professional development. The professional development progression can be modified for the current year or added to for the following year.



# Trainer of Trainers

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To help sustain professional development in your district over time, Carolina offers Trainer of Trainers sessions to adopting districts. These sessions are designed to prepare designated science trainers to provide Carolina program implementation support for new teachers. The Trainer of Trainers sessions are designed through the partnership to meet your district's specific needs. Topics include:

- Program philosophy, components, and connections to state standards
- Exemplary models of lesson implementation
- Overview of individual program components including kit, digital resources, and literacy
- Resolving implementation issues for teachers (i.e., missing components, non-viable living materials)
- Additional support to meet district-specific needs, including the 5E model, NGSS, or CarolinaScienceOnline.com



# Menu of Professional Development Opportunities

The chart below lists available professional development sessions. During your partnership planning meeting, select from these options to customize your professional development progression.

Implementation	Advancing	Sustaining
Trainer of Trainers: Program Components, Philosophy, 5E Model, Pedagogy, and Teaching Strategies	Trainer of Trainers: NGSS, Engineering Design, and Authentic Assessments	Trainer of Trainers: Seminars by Experts (attend a workshop at a state or regional conference)
Science and Literacy Strategies—Using Informational Text	Implementing—Self-Assessment	NGSS 3-Dimensional Learning Model Lessons: Beginning & Intermediate
Content-Specific Background and Misconceptions	Engineering Design	Advanced Content Knowledge
Authentic Notebooking	Interactive Notebooking	Assessing Through Notebooks
Inquiry and Argument (CER)	Evidence-Based Conclusions	Engineering Projects
Differentiation Strategies	Meeting the Needs of All Students	How to Assess Projects
Science and Mathematics Integration Strategies	Use of Informational Text to Assess Learning	Use of Informational Text to Assess Learning
Materials Management Strategies	Cooperative Grouping	Classroom Management Strategies
Seamless Technology—Using CarolinaScienceOnline.com	Technology Updates	Technology Updates
Curriculum Mapping—Unit Pacing and Lesson Planning	Lesson Planning—Integrating Science Instruction with Math and Literacy	Lesson Planning with Additional Resources
Administrator Training—Program Implementation, Best Practices in Inquiry-Based Science Instruction	Administrator Training—Assessing NGSS Science	Administrator Training—Time Management and Inquiry-Based Science Instruction

For more information about professional development, contact us at [curriculum@carolina.com](mailto:curriculum@carolina.com)



**WEBINAR**

**VIDEO TUTORIALS**



For more information about professional development, contact us at [curriculum@carolina.com](mailto:curriculum@carolina.com)

For more information about program offerings, correlations, white papers, case studies, free webinars, and more, visit:

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