



JASON Learning Professional Development

JASON Learning's comprehensive professional development programs provide educators with the tools and strategies to implement student-driven, in-depth scientific exploration and inquiry. Programs are designed for administrators, curriculum directors, science coaches, team leaders, and science teachers to increase general expertise in implementing inquiry-based science curricula and preparing them to use JASON with their students.

JASON offers custom teacher training workshops for schools and districts, and hosts professional development workshops nationally and internationally. These sessions may be one-day to full-week long institutes. All workshops are led by experienced JASON trainers who are well-versed in current teaching and learning pedagogies, and represent years of classroom teaching experience and science background.



JASON Core Curricula Training



- *Climate: Seas of Change* (earth science – oceanography, climate)
- *Infinite Potential* (physical science - energy)
- *Monster Storms* (earth science - weather)
- *Tectonic Fury* (earth science - geology)
- *Terminal Velocity* (physical science – forces & motion)
- *Recycling Activities Collection* (environmental, mixed sciences)
- *Resilient Planet* (life science - ecology, environmental)
- *Wetlands* (life science - ecology, environmental)
- *World of Waves – NEW!* (physical science, designed with the Office of Naval Research)

JASON Trainers lead educators through curriculum or topic-specific modules that pull from JASON's award-winning programs to enable educators to implement JASON in their classrooms. All curricula are built around real-world scientists engaged in real-world scientific problems or phenomenon. During the workshops, teachers participate in several hands-on labs and activities, explore JASON's digital resources, and discuss best practices for implementation. Educators also develop their skills and comfort level with: inquiry-based learning strategies; technology integration; differentiated instruction; blended learning techniques; and student assessments.

JASON Webinars

JASON also offers web-based “virtual” sessions hosted by our expert trainers. Learn more about JASON's approach to science teaching and learning through live tutorials on topics including curricula content, standards alignments, JASON resources, and the JASON online platform. All sessions encourage real-time Q&A with our trainers to assist with your specific needs. Visit <http://www.jason.org/teacher-training> to see our schedule of upcoming webinars or to request a customized demo.

Contact Amy O'Neal at amy@jason.org for more information about our professional development offerings.

STEM Education for the 21st Century: Innovation and Best Practices in Partnership with AASA and Triway



Since 2015, JASON Learning, AASA, and Triway have partnered to bring week long learning institutes to over 200 Chinese educators in Beijing, Suzhou and Shanghai. JASON Learning's 5-day training program introduces teachers to leading ideas, innovations, technologies, and best practices in US STEM education, and engages them in hands-on activities that put these concepts and information into practice. Trainers work side-by-side with participants throughout this entire course for high level interaction and guidance of practices. We also provide customized training programs, summer camp experiences, and curriculum design programs in China. To learn more about these opportunities, please contact Shirley Duan, Education Exchange Specialist, at duanx@triwayinc.com or 703.854.1000, ext. 120.



JASON Learning Offers Professional Development Experiences in Next Generation Science Standards

JASON's NGSS training sessions can be customized according to the level of familiarity and comfort with Next Generation Science Standards. JASON offers one-day and two-day experiences to week long institutes, as well as on-going support. See separate flyer for sample sessions. Some level of prior PD focused on NGSS, and familiarity with the EQIP rubric is helpful but not required for these sessions. Contact pd@jason.org to learn more about our week-long institutes, customizing a training experience for your district, and pricing.



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Designing your NGSS units of instruction? Or just need a little more support in understanding and practicing the NGSS shifts? We Can Help.

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JASON's Core Curricula through an NGSS Lens (1 or 2 days: recommended for grades 5-9)

Experience any one of JASON's curriculum, as we examine the vision and pedagogy put forth in [A Framework for K-12 Science Education](#). JASON Trainers will share newly developed tools and strategies for identifying central phenomena and incorporating 3-dimensional elements. This session is especially helpful for teachers already using JASON modules in their classrooms and need support as to how to use these resources and lessons to support the transition to NGSS.

Redesigning Towards an NGSS Classroom (1 or 2 days: all grade levels)

Don't throw those lessons out with the bathwater! "Tried and true" lessons that have created meaningful experiences for your students for years do not need to be discarded with the advent of new standards. Join us as we share how JASON Learning is redesigning labs to support the transition to an NGSS classroom. Educators will experience two versions of a JASON lab, one created pre-NGSS, and the other a newly designed NGSS version. We will examine specific modifications and the strategies and tools used to make the adaptations through hands-on experience, and discussion. Toward the end of the session, educators are invited to examine a "tried and true" lesson of their own and apply these new strategies and tools to make future modifications.

Deconstructing Performance Expectations for an NGSS Classroom (1 or 2 days: all grade levels)

Participants will explore the Next Generation Science Standards in more depth and participate in discussions and analyses of how educators can begin to implement 3-dimensional learning. Participants will be introduced to new lesson planning tools and strategies to begin embracing NGSS pedagogy whether it's with existing lessons or with new materials and resources. Using resources and investigations from JASON curricula participants will unpack a performance expectation to understand how this translates to classroom experience and lesson design. While using JASON resources to explore what 3-dimensional learning looks like, this experience is intended to empower educators to apply and adapt these tools and strategies to meet the needs of their school's curricula and classroom settings.

Resources and Tools for an NGSS Classroom & Problems of Practice(2 days –spread apart by at least one month: Best for Grade 5-12)

During Day 1 of each program, participants will experience selected three-dimensional investigations and resources and explore key JASON-NGSS teacher tools to locate additional candidate resources for inclusion in NGSS units of instruction. Educators will take away actual lessons, ideas and strategies to use and pilot with students in the classroom. During Day 2, educators will share their experiences using the resources, successes and challenges, and tips and strategies for integrating them into larger NGSS units with a network of peers. Sessions will also include strategies for connecting lessons and resources to other science disciplines through PE bundles and the use of summary tables. Although selected investigations and resources from specific JASON curricula will be used to illustrate strategies and pedagogy, ideas and tools will be transferrable to other science disciplines, and can be applied to not only JASON materials but other resources educators may be working with. We offer this two-day experience in the following modules:

Physical Science (*Energy, Motion & Stability/Forces & Interactions, and Waves, Grades 6-12*)

Life Science (*Ecosystems: Interactions, Energy, and Dynamics, Grades 6-8*) (Grades 9-12 under development)

Earth Science (*Earth Systems, Earth & Human Activity, Grades 6-12*)

Engineering Design (*with connections to earth, life, and physical sciences, Grades 6-12*)

A Framework for K-12 Science Education challenges us to deeply integrate engineering design into all disciplines at every level. Engineering and technology are featured alongside the disciplines to “reflect the importance of understanding the human-built world and to recognize the value of better integrating the teaching and learning of science, engineering, and technology” (p.2). What do the NGSS really say when it comes to engineering and design and what are the “big ideas” students should be working on? The focus of this workshop is to build understanding and share strategies to integrate engineering design as presented in NGSS and in the Frameworks. Through hands-on experiences with JASON resources, participants will journey through the process of defining and delimiting engineering problems, how models can be used to develop and refine possible solutions, and methods that may be used to optimize a design.