

Title	Description	Grade Levels	Subjects	Instructor(s)
Teaching STEM With Children's Books	This strand delves into the eight math practice standards. Whatever your curriculum, these standards are a guide to good math instruction. Participants will learn how to incorporate these standards into their current curriculum using children's literature. They will learn strategies, receive hands on activities, learn alternative methods for assessing student learning, and learn how to plan engaging instruction.	K-2	Technology, Math	Michelle Stratton and Adam Stratton
Beyond this World with STEM	This strand will provide the participants the opportunity to explore the sciences of astronomy and space exploration. The instructor will take an integrated approach to the topics of the Sun, Moon, the Solar System, the stars and space exploration. Participants will create and learn to use a variety of models and investigations to explain scientific concepts which are to “big” to bring into a classroom. This learning sequence will include experience with the StarLab portable planetarium and a certification to check-out and use the StarLab planetarium from the i-STEM resource center at the INL.	1-8	Science, Technology, Engineering, Math, Other	Zoe Jorgensen
Life is a Hierarchy: Atoms to Biosphere	From something as miniscule as a cell to the biosphere we all call home, living things fit together in numerous interesting ways. We will begin with atoms and molecules, then track how unicellular organisms, tissues, organs, organ systems, organisms, populations, communities, ecosystems, and our biosphere build off of each other and work together. The last day of the workshop will address local issues in the processes and systems making up Idaho's biological organization. *This strand is appropriate for informal educators.	4-9	Science, Technology, Engineering, Math	Alana Jensen

Learn to be a CryptoClub Leader!	Cryptography, the science of secret messages, is an intriguing STEM topic and an important application of mathematics. Leaders need not be mathematics teachers – just enthusiastic about math. The CryptoClub curriculum teaches cryptography and mathematics to middle-grade students in afterschool settings. Teachers have found it also works well in enrichment programs and elective classes during the school day. There is enough material for over 20 one-hour sessions, but the curriculum is flexible enough that students can benefit from shorter programs. The CryptoClub Curriculum was developed with NSF support and has been nationally field-tested. *This strand is appropriate for informal educators.	4-10	Math, Computer Science	Cindy Thorngren and Crispin Gravatt
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Nuclear Topics for Educators	This strand will explore innovative concepts and tools to teach nuclear science energy, safety and engineering principles to help students understand radiation and the physics of energy from the nucleus of atoms. The participants will preview The Harnessed Atom, a ten lesson program that engages students with hands-on experiments, interactive learning and career opportunities. This strand will introduce The Harnessed Atom which is a new energy and nuclear science STEM curriculum for middle and high school teachers and students. Teachers will be given Geiger counters, cloud chambers, radioactive sources and a kit that they can utilize to take back to the classroom to keep all the teaching aids in. The Harnessed Atom includes a Teacher's Guide, Student Reader, experiments and classroom activities and evaluations for both teachers and students. The DOE Office of Nuclear Energy collaborated with teachers, national laboratories, leading universities, teachers associations and technology firms to support science, technology, engineering and math (STEM) education when they formulated this program. The strand will also include a tour of the INL if it can be arranged.	5-12	Science, Technology, Engineering, Math	Robert Skinner
Seeking GEEKS, NERDS, and Maybe BRAINIACS	Exploring the World of Cyber Security through Cybercore: Workshop Description: Hands-on introduction to control system cybersecurity and critical infrastructure. The participants will build, break, secure and explore cybersecurity through the use of the CybatiWorks Traffic Light Mini Kit. They will also engage in fun-filled activities with cyber professionals from Idaho National Laboratory, tour site facilities, and learn about additional resources available to teachers and students.	9-12	Science, Technology, Math, Computer Science	Matthew Luallen