



## STEMworks – STEM Advisory Council’s Approved STEM Program October 2017

### MAKING SENSE OF SCIENCE

#### **PROGRAM OVERVIEW**

*The Making Sense of SCIENCE (MSS) project operates within the Science, Technology, Engineering, & Mathematics (STEM) program at WestEd. MSS is a research-based approach to teacher professional learning that connects hands-on science with integrated teaching and literacy supports. It has a proven track record of improving student achievement, especially for diverse students, including English language learners and students with poor literacy skills (Heller, et al, 2012). Students whose teachers participate in MSS courses have been shown to outperform other students by more than 40 percent.*

#### **TARGET GRADES**

*K–12 Teachers; School and District STEM Leaders (e.g., TOSA, coaches, science specialists)*

#### **A UNIQUE OR SPECIAL FOCUS OF THE PROGRAM**

*Making Sense of SCIENCE is a train-the-trainer model of professional learning that is easily scalable and connects hands-on science learning with integrated teaching and literacy supports.*

#### **THE PROGRAM’S IMPACT ON STUDENTS**

*Study findings offer compelling evidence that the MSS approach strengthens teachers’ content knowledge, transforms classroom practice, and boosts student achievement — especially for low-performing students, English learners, and students with poor literacy skills — showing that MSS courses help close the student achievement gap.*

#### **SPECIFIC SKILLS STUDENTS WILL LEARN**

*Conceptual understanding of foundational Earth, life, and physical science concepts*

*Disciplinary literacy skills — reading, writing, speaking & listening in science*

*Developing, using, and evaluating models*

*Asking questions*

*Planning and carrying out investigations*

*Analyzing and interpreting data*

*Using mathematical and computational thinking*

*Constructing explanations*

*Engaging in argument from evidence*

*Obtaining, evaluating, and communicating information*

*Pattern identification*

*Systems thinking — energy flows, cause and effect relationships, stability and change, feedback mechanisms*

#### **RESOURCES PROVIDED TO EDUCATORS**

*MSS offers an array of customizable services for teachers & science leaders. From short half-day, content-based workshops to in-depth learning pathways that include leadership training and site-based technical support.*

#### **WEBSITE**

[www.wested.org/mss](http://www.wested.org/mss)

#### **CONTACT INFORMATION**

Patrick Moyle, [pmoyle@wested.org](mailto:pmoyle@wested.org), 510-302-4219