

Delaware Valley Science Fairs, Inc. Offers FREE, Partner-Sponsored STEM Workshops for Educators and Students

Meet Science Standards through Research Competition

All workshops are for both educator and student audiences unless otherwise indicated.



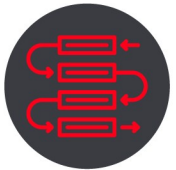
Getting Started with STEM - Educators Only (2 hrs)

This introductory workshop focuses on helping educators understand the nature of scientific research. Participants will recognize the components of scientific and engineering research: asking a question or recognizing an engineering problem, literature review, scientific procedures and engineering design, data collection and analysis, drawing conclusions based on evidence, and communicating results to others. Participants will also be given resources to take students from classroom scientific research (aka inquiry) to begin competing in local science fairs.



Asking Testable Questions (1.5 hrs)

Writing testable, investigable questions is the most difficult piece of any science research. This hands-on learning experience is highly recommended for students who will carry out scientific investigations from beginning to end. Students will write questions based on observations of simple phenomena. Then, with guidance, they will recognize how questions that are investigable differ from those that can be answered by literature research or additional observations. Finally, students will practice writing testable questions relating to their own independent research or curriculum-based research ideas.



Writing Procedures (including safety considerations) for a Scientific Research Audience (1 hr)

Participants will critique sample procedures written for simple investigations. Once criteria for well-written procedures are recognized, participants will begin writing procedures, including safety considerations, for their own scientific research. This learning experience will include strategies for collecting and recording data.



Analyzing Data and Reaching Conclusions (1.5 hrs)

Participants will practice analyzing various sets of data using graphs and basic statistics. Conclusions will be written using the data analyses as evidence.



Communicating Research to Others (1.5 hrs)

This learning experience has been designed to help participants recognize the characteristics of quality visual and/or verbal presentation of their research to others, such as judges, peers or teachers. Participants will review sample research presentations using basic presentation and judging criteria.

DVSF looks forward to working with you!

For more information, or to schedule a workshop, please email smecouch@DVSF.org

Suzanne Mecouch, Director of Teacher Development

Delaware Valley Science Fairs, Inc.