Scalable, Web-based Professional Learning to Improve Science Teaching and Learning

**Talk Science** is a three-year research and professional development project to increase the productivity of classroom science discussions. This companion to the Inquiry Curriculum was funded in 2009 by the National Science Foundation and is the collaborative effort of TERC, Clark University, and Boston area schools. The aim of the project is to deepen students’ science understanding through better science discussions. To accomplish this, the project provides a “PD Pathway” to help teachers:

- deepen their understanding of the nature of science and science concepts,
- develop a culture of productive talk in the classroom, and
- become better discussion leaders

Talk Science PD is a blend of web-based study, face-to-face study group meetings, and opportunities to try out ideas in the classroom. The program includes a rich collection of video cases aligned with the Inquiry Curriculum to provide just-in-time, contextualized support. Talk cases are cross-linked and embedded in the Inquiry Curriculum, providing access to professional development resources as teachers teach.

**Research**

The associated research is studying the process of teacher learning and the changes in discussion patterns that occur in science classrooms as teachers implement new talk strategies.

**The Video Cases**

**Talking Points**

Learn how to establish a culture of talk in the classroom, what productive talk is, and why it is important.

**Scientist Cases**

Eavesdrop on scientists as they engage in investigations from the Inquiry Curriculum. These interviews with scientists bring to life the core science concepts from the curriculum and provide critical science background information that goes hand-in-hand with support materials and resources in the Teacher Guide.

**Classroom Cases**

View science discussions from the Inquiry Curriculum in real classrooms. These cases reveal the role of discussion in learning and uncover what's unique about lead elicitation discussions, data discussions, consolidation discussions, and explanation discussions.

**Strategies**

Become familiar with nine strategies teachers use to support a culture of talk in the classroom. Use these strategies to ensure that students do the "heavy lifting" in the discussion, and to ensure that discussions are rigorous and equitable.

For information about the project email: inquiryproject@terc.edu

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