



Indicates a research-demonstrated benefit

## **Overview**

A professional development program for K-12 teachers on the learning of energy. Teachers construct an understanding about energy and about learning.

Type of Method	Instructional strategy
X: Level	<b>Designed for:</b> Teacher Professional Development <b>*</b> <b>Can be adapted for:</b> Teacher Prep Course, Intro College Conceptual
m Setting	Designed for: Lecture - Small (<30 students) 🔹
📔 Coverage	Few topics with great depth
🗾 Topics	Mechanics, Thermal / Statistical
Instructor Effort	High
Resource Needs	Tables for group work
	Designed for: Using multiple representations 🔹 , Conceptual understanding,
🔁 Skills	Making real-world connections, Metacognition, To pay attention to their students' thinking, To experience science as an area where they and their students are empowered to figure things out
Skills     Research     Validation     Skills     Validation     Skills     Ski	Making real-world connections, Metacognition, To pay attention to their students' thinking, To experience science as an area where they and their students are
Research	<ul> <li>Making real-world connections, Metacognition, To pay attention to their students' thinking, To experience science as an area where they and their students are empowered to figure things out</li> <li>Based on research into: theories of how students learn (*), student ideas about specific topics (*)</li> </ul>
Research Talidation	<ul> <li>Making real-world connections, Metacognition, To pay attention to their students' thinking, To experience science as an area where they and their students are empowered to figure things out</li> <li>Based on research into: theories of how students learn (*), student ideas about specific topics (*)</li> <li>Studied using: classroom observations (*)</li> </ul>

🛞 Website	http://www.energyprojectresources.org/
Nitro Article	10368
Ntro Article	<u>Using the Algebra Project Method to Regiment Discourse in an Energy Course for</u> <u>Teachers</u>
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