

# STEM Cases: Real-world problems, real-time data



Give high school students the opportunity to act like scientists with STEM Cases: award-winning, research-proven, interactive case studies in the Gizmos library.

## Inside a STEM Case

STEM Cases engage students to become active learners by presenting a scenario that puts them in the role of STEM professionals tasked with solving a real-world problem. For example, in the **Enzymes Case**, students play veterinary technicians tasked with saving a Great Dane called Claire that has lost weight despite eating normally. During each Case, students learn the scientific concepts and use critical thinking and apply scientific practices as follows:



### 1. Learn the science



### 2. Collect data



### 3. Analyze and interpret data



### 4. Form a hypothesis



### 5. Test the hypothesis

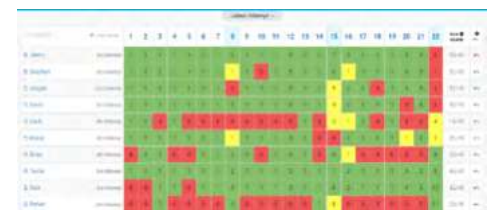


### 6. Communicate findings



## Formative assessments and real-time data

Assessments (15-25 per case) report student achievement and progress in real time as a “heatmap,” giving teachers the ability to quickly address problem areas and differentiate instruction. STEM Cases are aligned to state/provincial standards and help prepare students for modern interactive assessments. Research from the University of Georgia found that replacing just three traditional classes with STEM Cases elicited significant learning gains.



*“Students like that the information is put into a real-world scenario and they are proud of themselves when they master the content in order to solve the case. I see real growth in the students’ technical writing skills as they fill out their case summary reports.”*  
—Dr. Megan Faliero, Biology Teacher, Livermore High School, CA

**STEM Case topics:** Animal Group Behavior, Diffusion, Enzymes, Homeostasis, Protein Synthesis and more!  
[Check out our growing collection.](#) STEM Cases are available for elementary through high school, including AP courses.