

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



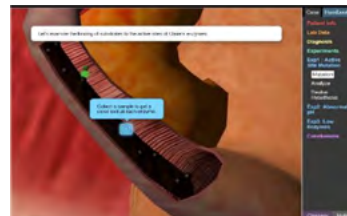
3. Analyze and interpret data



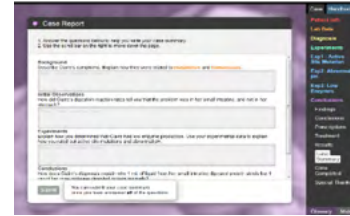
4. Form a hypothesis



5. Test the hypothesis

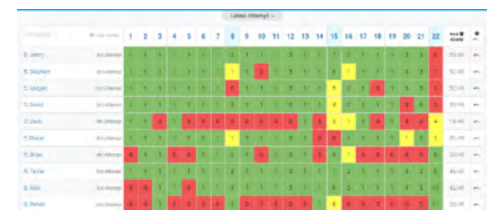


6. Communicate findings



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.