

Pennsylvania High School Teachers Use Inspiration® to Engage Students and Improve Understanding in Science and Literature

A teacher describing the functions of the organelles that make up a cell—with terms such as ribosome, lysosome and endoplasmic reticulum—can sometimes be met with a room full of glazed stares. In Cheryl Teaters' high school classroom, students can't get enough of it, showing up during their lunch periods and staying after school to perfect their "cell analogy projects."

Teaters, who teaches biology at Gateway High School in Monroeville, Pa., has her ninth- and tenth-grade students draw a biological analogy to another structure, such as a school, an automobile or a city. A student comparing a cell to a city might label its city hall as the nucleus, the road system as the cytoskeleton and the power station as the mitochondria. In the past, Teaters has employed "the old posterboard method," but this year she brought the project to life with Inspiration®, the essential tool to visualize, think, organize and learn from Inspiration Software®, Inc., and saw a new sense of enthusiasm for learning this important biology concept.

"We took a project that was simple in elements to

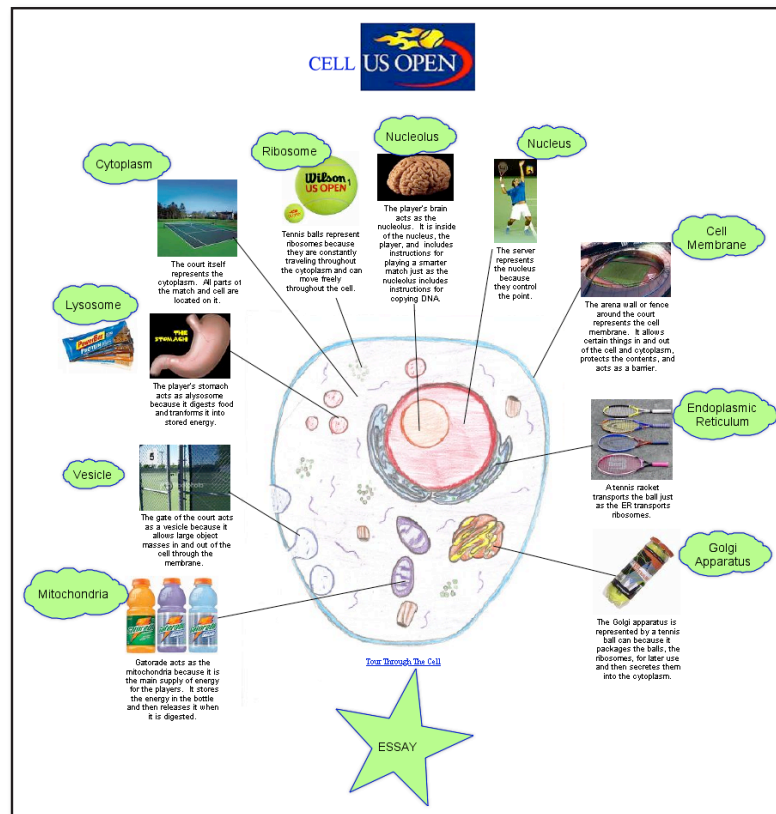
a much more complex level," said Teaters. "It forced students to look at the parts and what they meant, and Inspiration was the perfect tool to do that."

Teaters' students constructed Inspiration "webs"—or visual maps—of a cell and the structure to which they compared it. To strengthen their learning of the

composition of a cell, she asked them to draw the cell using Inspiration's drawing tool. For each organelle, students found a corresponding function in their analogous structure and created a visual representation of the connection. With Inspiration's vast library of symbols, graphics and photos, as well as images they imported, students were able to depict virtually anything they could visualize.

Perhaps the most common choice for the analogy was a shopping mall, where the

information desk was usually compared to the nucleus of a cell, said Teaters, but she was impressed with the wide variety of ideas students presented, including a sporting event, a musical, a play, a marching band, a cruise ship, a factory, an airport and a household.



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Using Inspiration's audio and video features, students were able to add a deeper dimension to the project—something that would be impossible with posterboard. For example, some added narrations, and others followed suit. "My students loved using Inspiration for this project. Their creativity could flow," she said.

When students completed their projects, they turned them in electronically, and from her computer, Teaters evaluated the thinking behind each part of the analogies, checking links and viewing the audio and visual components. "I was amazed. They far exceeded my expectations," she said.

When comparing using Inspiration to the posterboard method, the advantages were clear. "My students were much more interested in the project, they cared more about it and they took more ownership of it. They wanted it to be perfect, and it added some healthy competition to the project."

Teaters entered her cell analogy project in Inspiration Software's Inspired Visual Learning Awards, and out of more than 220 entries from around the world, the project was selected for one of three Gold Star Awards, the award program's highest level of recognition.

At every opportunity, Teaters incorporates technology into learning, using computers for a range of lessons, maintaining a class website and having her students create podcasts. "Technology is such a part of their culture, and it helps to teach in a world they understand," she said. Inspiration is an integral part of her teaching, and she uses it throughout the school year to teach all kinds of concepts.

When she first introduces Inspiration to students who haven't used it before, they are off and running with little explanation, she said. "Inspiration is such a user-friendly program that it takes less than one class period for them to explore it and see all the different capabilities they can use."

They've also used Inspiration to do concept mapping on photosynthesis, cell transport, mitosis and meiosis. "It's like a big, white piece of paper where they can move things around easily," she said. Gateway High School's math teachers have found Inspiration to be "one of the best tools for concept learning" in support of a schoolwide initiative to teach literacy skills across the curriculum.

Cindy Strotman, an English teacher at Gateway, is using concept learning in her classroom, too. In the past, she would use a desktop publishing program to have her students create concept maps, but she found it to be time-consuming. When planning a lesson on the short story "The Birds," she decided to try Inspiration. "Sometimes technology can be so intimidating, and I knew nothing about the software, but just by opening and playing with it for three minutes, I could use it," she said.

Her students caught on quickly, too, and were able to generate their own concept maps, whereas in the past, she had them fill out a concept map she had created. "They can draw them at their desks, and no two look the same. Students are more excited about creating them this way, and they have fun while learning the skills we need them to learn," she said.

Strotman finds Inspiration's symbol library of tremendous benefit, she said. "It is so much better than what I had previously used. My students' work is more visually attractive, and they're inspired to 'jazz it up.'"

After seeing its value in analyzing "The Birds," Strotman turned to Inspiration to teach numerous literary works throughout the school year. Next, she plans to use Inspiration to teach writing. "I can see its potential is limitless in the English classroom," she said. "Inspiration holds students' interest and enhances our literacy initiatives schoolwide."



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