

Learning Chemistry through Projects

Welcome to Mr. Barker's chemistry class. This year we will be doing five different projects that will help your children apply what they are learning to real-life situations.

The most exciting phrase to hear in science, the one that heralds the most discoveries, is not "Eureka!" (I found it!) but "That's funny..."

~Isaac Asimov



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An Introduction to Projects in Mr. Barker's Chemistry Class

Learning with Projects in Chemistry Class

Dave Barker

Have your children ever asked you when they are ever going to use what they are learning in school in real life? It is a fair question, and this year in our chemistry class we are going to try to answer it. How? Each grading period, we are going to take the time to do one project involving chemistry in the real world.

The projects will involve investigating various issues in our community that relate to chemistry. Students will collect, analyze, interpret, and draw conclusions from data. Then they will present what they have learned to others.



What about Standards?

When students work on projects, they spend less time listening to lectures and doing assigned reading. Instead they do research on a variety of topics, gathering the information they need to solve a real-life chemical problem.

While we work on projects, class time will be organized very differently than usual, but it will still be very structured. The projects will be designed so that students will have to understand important concepts and be able to perform specific skills related to chemistry in order to complete them successfully.

Since students will be working independently and in small groups, I will assess their learning as they are working to make sure they are achieving all the objectives by observing them as they work and taking notes, asking questions and reviewing their learning logs. Students will also frequently assess their own learning and give feedback to each other.

Benefits of Projects

Learning with projects takes a lot of work both by teachers and by students. The rewards are well worth the effort, however. Research shows the following benefits of projects:

- Students are more engaged and interested in learning the content because it relates to their lives.
- Students understand what they are learning at a deeper level because they are actually using concepts and skills in meaningful ways.
- By working with peers and others in the community, students learn important collaboration skills that they will need in their adult lives.
- Students develop important self-management skills, such as time management, planning, and self-assessing.

Upcoming Projects

- Videos of Chemical Reactions
- Fireworks: How They Work
- Household Cleaners: How Safe Are They?
- CSI: Harrison High
- Chemistry Sets from Everyday Materials