

Discussing Chemistry and Advertising: Tom Pratum

Teacher's Guide

Goals

- To make the connection between chemistry concepts and advertising
- To summarize the course on chemistry and to look to the future

The Discussion

A discussion is held about the use of chemical concepts for advertising. Are concepts like *natural*, *organic*, and *chemical free* used as their chemical meaning, or are they misleading the public? The students use what they learned in chemistry to discuss these topics.

Lecture Notes

I have arranged you in small groups, so you can start your discussion there, because you are going to get your thoughts together, and get things organized.

After 20-25 minutes of small groups, you are going to turn your chairs facing this way, and we will have a moderator leading this discussion.

We are going to talk about chemistry in advertising. One side would argue that there is no problem in the way that words are used in advertising, despite their chemical meaning. The other side will argue the problem in advertising: what it does to people's understanding of chemistry, of chemicals, of what's healthy and what's not.

Is the mission clear? You are free to get up and grab any of the books or check something on the Internet (key-words: food, advertising).

The Debate

Problem With Advertising Chemistry

Organic means that it contains carbon, so it means that it is false advertising, because the market gives society the idea that *organic* means no chemicals.

Chemical-free: Chemical is any substance used by or formed in a chemical reaction. Water and glucose are chemicals, those are all things that are natural. So trying to tell people that a chemical is bad and we shouldn't eat it is wrong, because we eat chemicals and we are made of chemicals, it's part of life.

We have a lot of things which contain chemicals, like the milk that comes from the cow. Just because it comes directly from the cow does not mean that it is **chemical-free:** we feed her chemicals.

When they say that it's **organic**, the fact that it does not contain pesticides does not make it organic. What makes it organic is the fact that it has or does not have carbon in it.

No Problem With Advertising Chemistry

Organic products are not faultily advertised because the government specifies the amount of pesticides to use in organic food.

Chemical-free: What we are talking about is not chemical compounds like water, but about things, which are added to it to make it impure, not the pure substance itself.

If the food is marketed as being **organic**, it does not mean that it has no chemicals added to it, it just says that it's grown without certain levels of pesticides, that's all that is regulated by the government.

When something is labeled as **organic** that's what it means in terms of advertising. It is correct in terms of the law.

They think, "Oh, it's good for you, that's what they mean, if it's bad for you or not."

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You have a good point there, let's put a little spin on that, that will make us progress instead of getting locked in. Both sides have valuable points about the issue. But now let's take it one step further. You came to this chemistry class at the beginning of the year with a certain mind set, mostly terror.

You've spent a year of learning chemistry, and you look back at the way you used to think of what it meant for someone to advertise food in a certain way: "organically grown," "nature's own," pick a phrase.

Think back to the way you used to view that. You may or may not have changed from this time, and now take the points which you are arguing about and move it up one level.

Students: Open Discussion

When you came here, what did you think organic was, what did you think they meant by chemical-free?

Some chemicals are made for the body without adding fat or calories to the food. It says that some chemicals help save lives instead of people thinking that it's bad.

It's not that all foods have food coloring and not all cookies have to have food coloring and other stuff added to it.

In our research, we found that if we didn't put yeast in food it would be flat, and sometime you want to add salt to it, too.

Summary—Mr. Pratuch

There is a point there: If bread is all natural bread from organic wheat, but you have to have added salt to it, it is a chemical....

Teaching Tips From Mr. Pratuch

That was the goal of these things: to take the year of chemistry, and spend some time at the end of the year, discussing issues that may or may not be directly chemistry.

But using their year of chemistry experience, to draw and synthesize a view or an understanding, be able to develop it, to explain it to others, defend it, change it, so they have a sense of science, more than just this set of facts, that there is an atom or an element. What did they really realize out of learning chemistry?

References: Readings

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