

### Chemical Scholarship Assignment 3: Briefings on chemicals in food

You will be assigned one of the following topics for your briefing:

Trans fats	Vitamin D in OJ
MSG	Fluoride in water
Nitrates	Fortified flour
Homogenized milk	Iodized salt

The goal of this set of briefings is to understand the who, what, when, where, whys, and how of chemical food modification, tying the study of chemistry in this class to your everyday lives.

Each group will have 7 minutes maximum to give their briefing. You will have a computer (with Power Point and a projector available or you may bring in other visual aids that might enrich your presentation. If you do wish to use computer, please send a group member to class early so that you can set up your presentation BEFORE class begins. After your briefing, you will be asked questions from two of the other groups. Once all of the briefings are finished, you as a group will be asked to decide which modification is most controversial and which is most beneficial.

Each group is responsible for asking one question of each of the two previous briefings.

Briefing should include and answer:

- What is the modification (chemical structures as appropriate)?
- Why it is done?
- How it the food modified?
- What food products does it appear in?
- Tie in some aspect of this chemistry course (elements, periodic trends, bonding, intermolecular forces, thermochemistry)
- A brief history (how, when, and where did it all get started?)
- Is it FDA approved?
- Summarize the modification advantages and disadvantages
- Brief us on any debate surrounding the modification (explain the positions that people hold and why they hold them). How heated is the debate?
- Cite data from at least one scientific study (Be sure to properly cite all sources used during your briefing)

Each member of your group must contribute to the briefing presentation. In a group of three, one member should brief us on the who, what, when, where, etc. of the modification, a second group member should brief us on the debate, and the third group member handle the questions. In a group of four, it is suggested that the first group member handle the who, what, etc., a second group member handles the debate, the third group member handles the answering of questions, while the fourth group member handles the asking of questions.

Grading:

- 4 points (what, how, where, when)
- 4 debate about modification
- 4 citations including scientific study and results
- 2 tie to chemistry studied in class
- 2 (1 point each) question answered
- 2 (1 point each) question asked
- 2 presentation (volume, clarity, effectiveness)